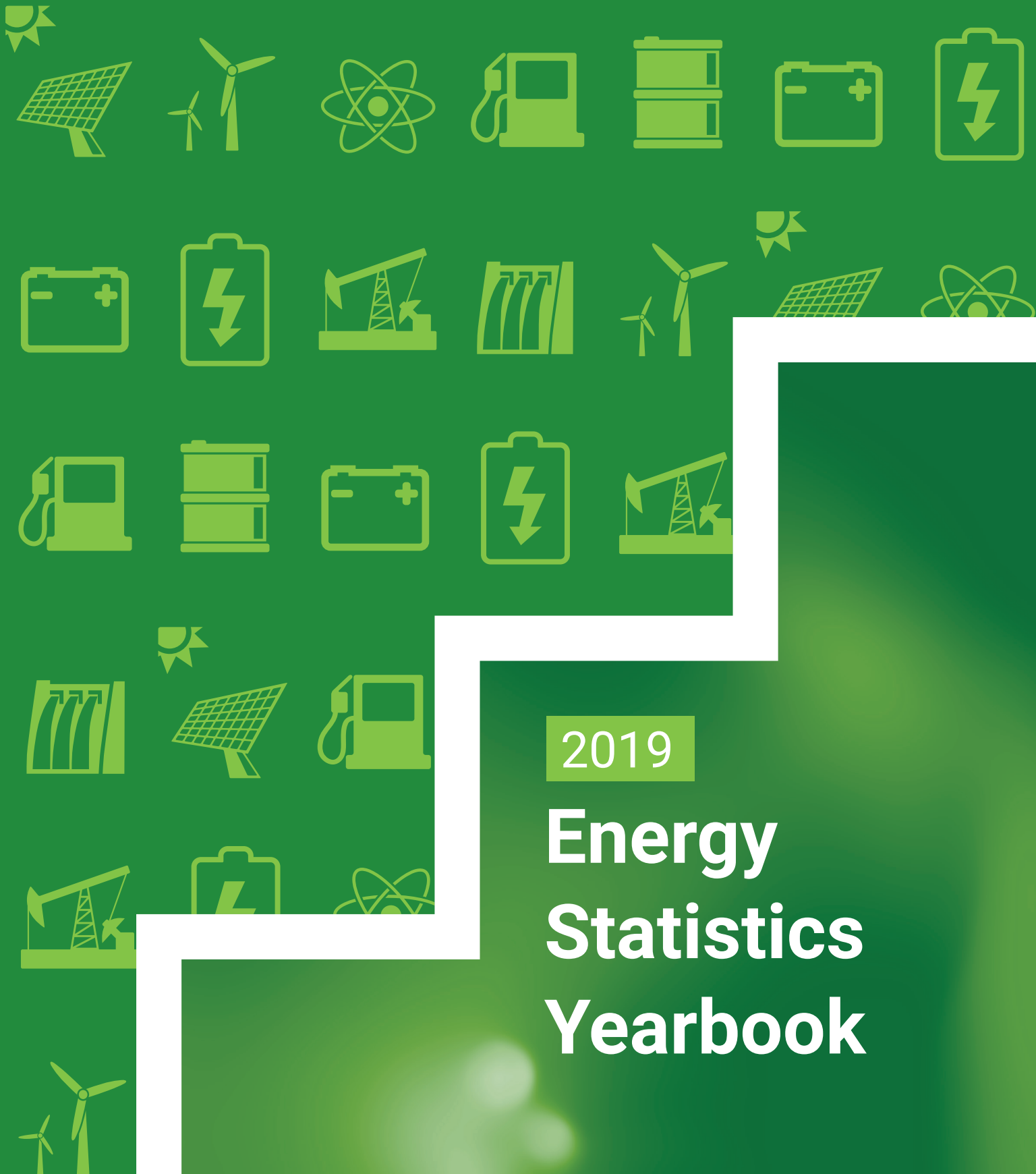




**United Nations**

Department of Economic and Social Affairs



2019

# Energy Statistics Yearbook

# 2019 Energy Statistics Yearbook



## Department of Economic and Social Affairs

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# CONTENTS

	Page
Introduction.....	vi
Abbreviations and symbols.....	viii
Energy product definitions.....	ix
Energy flow definitions.....	xvi
Capacities and other definitions .....	xviii
General notes.....	xx
Geographical notes .....	xxi
Country specific information .....	xxiii
Units of measurement and conversion .....	xxv
<b>Conversion factors</b>	
I. Net calorific values of energy products .....	xxvi
II. Selected conversion factors for crude oil and oil products .....	xliii
<b>TABLES</b>	
<b>Summary tables</b>	
1. Total energy supply... ..	2
2. Components of total energy supply.....	10
3. Total final consumption and its components .....	47
<b>Solid fuels</b>	
4. Production, trade and supply of coal.....	67
5. Production, trade and supply of hard coal.....	81
6. International trade of hard coal (Principal importers/exporters), 2018 and 2019.....	92
7. Production, trade and supply of brown coal and oil shale .....	97
8. Production, trade and supply of coke .....	105
9. Production, trade and supply of patent fuel.....	113
10. Production, trade and supply of brown coal briquettes and peat products.....	117
11. Production, trade and supply of peat .....	123
12. Production of biofuels and wastes .....	127
<b>Liquid fuels</b>	
13. Production, trade and supply of conventional crude oil .....	160
14. Production of additives and other hydrocarbons .....	173
15. International trade of conventional crude oil (Principal importers/exporters), 2018 and 2019.....	178
16. Refinery distillation capacity, throughput and output.....	182
17. Production, trade and supply of liquefied petroleum gases (LPG) .....	195
18. Production, trade and supply of motor gasoline.....	213
19. Production, trade and supply of other kerosene.....	233
20. Production, trade and supply of jet fuels.....	249
21. Production, trade and supply of gas oil/diesel oil .....	267
22. Production, trade and supply of fuel oil.....	287
23. Production of minor oil products from refineries – by type .....	305
24. Production of oil products from refineries – by type .....	317
25. Production, trade and supply of oil products....	329
26. Production of natural gas liquids – by end use	349
<b>Gaseous fuels</b>	
27. Production, trade and supply of natural gas ....	357
28. International trade of natural gas (Principal importers/exporters), 2018 and 2019.....	370
29. Production of manufactured and recovered gases - by type .....	375
<b>Electricity and Heat</b>	
30. Net installed capacity of electricity plants – by type .....	383
31. Utilization of installed electricity capacity – by type.....	419
32. Production of electricity – by type.....	454
33. Electricity supply and consumption.....	491
34. Production of heat - by type.....	511
<b>Nuclear fuels</b>	
35. Production of uranium (uranium content) .....	521

## Energy resources

36. Selected energy resources and reserves..... 525

## FIGURES

### Page

### Total energy supply and final consumption

1. Total energy supply by region, 1990 .....	2
2. Total energy supply by region, 2019 .....	2
3. Total energy supply by region, 1990-2019 .....	3
4. Total per capita energy supply by region, selected years .....	10
5. Production of solids by region, 2019 .....	11
6. Production of liquids by region, 2019 .....	11
7. Production of gases by region, 2019 .....	11
8. Primary electricity production by region, 2019 .....	11
9. World total final consumption by component, 2019 .....	47
10. Total final consumption by region, 1990-2019 .....	47

### Solid fuels

11. Production of coal by region, 1990-2019 .....	67
12. Production of hard coal by region, 1990-2019 .....	81
13. Major hard coal producing countries, 2019 .....	81
14. Major hard coal consuming countries, 2019 .....	81
15. Production of brown coal and oil shale by region, 1990-2019 .....	97
16. Major brown coal producing countries, 2019 .....	97
17. Major brown coal consuming countries, 2019 .....	97
18. Per capita supply of coke by region, 2019 .....	105
19. Major coke producing countries, 2019 .....	105
20. Major coke consuming countries, 2019 .....	105
21. Major patent fuel producing countries, 2019 .....	113
22. Major patent fuel consuming countries, 2019 .....	113
23. Production of BKB and peat products by region, 1990-2019 .....	117
24. Major BKB and peat products producing countries, 2019 .....	117
25. Major BKB and peat products consuming countries, 2019 .....	117
26. World production of peat, 1990-2019 .....	123
27. Major peat producing countries, 2019 .....	123
28. Major peat consuming countries, 2019 .....	123
29. Production of fuelwood by region, 1990-2019 .....	128
30. Production of charcoal by region, 1990-2019 .....	128
31. Production of total solid biofuels by region, 2019 .....	129
32. Production of biogases by region, 2019 .....	129
33. Production of bagasse by region, 2019 .....	129
34. Production of liquid biofuels by region, 2019 .....	129

35. Production of energy from wastes by region, 2019 ..... 129 |

### Liquid fuels

36. Production of conventional crude oil by region, 1990-2019 .....	160
37. Exports of conventional crude oil by region, 1990-2019 .....	160
38. Production, trade and supply of conventional crude oil by region, 2019 .....	161
39. Major crude oil producing countries, 2019 .....	161
40. Major crude oil consuming countries, 2019 .....	161
41. Major additives producing countries, 2019 .....	173
42. Major other hydrocarbons producing countries, 2019 .....	173
43. Refinery distillation capacity, throughput and output by region, 2019 .....	182
44. Total refinery distillation capacity by region, 1990-2019 .....	183
45. Production of LPG by region, 1990-2019 .....	195
46. Major LPG producing countries, 2019 .....	195
47. Major LPG consuming countries, 2019 .....	195
48. Production of motor gasoline by region, 1990-2019 .....	213
49. Major motor gasoline producing countries, 2019 .....	213
50. Major motor gasoline consuming countries, 2019 .....	213
51. Production of other kerosene by region, 1990-2019 .....	233
52. Major other kerosene producing countries, 2019 .....	233
53. Major other kerosene consuming countries, 2019 .....	233
54. Production of jet fuels by region, 1990-2019 .....	249
55. Major jet fuels producing countries, 2019 .....	249
56. Major jet fuels consuming countries, 2019 .....	249
57. Production of gas oil/diesel oil by region, 1990-2019 .....	267
58. Major gas oil/diesel oil producing countries, 2019 .....	267
59. Major gas oil/diesel oil consuming countries, 2019 .....	267
60. Production of fuel oil by region, 1990-2019 .....	287
61. Major fuel oil producing countries, 2019 .....	287
62. Major fuel oil consuming countries, 2019 .....	287
63. Production of minor oil products from refineries, 2019 .....	305
64. Production of selected oil products from refineries, 1990-2019 .....	317
65. Production of oil products by region, 1990-2019 .....	329

66. Production of natural gas liquids by region, 1990-2019.....	349
67. Production of natural gas liquids by end-use product, 2019.....	349

### **Gaseous fuels**

68. Production of natural gas by region, 1990-2019.....	357
69. Major natural gas producing countries, 2019....	357
70. Major natural gas consuming countries, 2019...	357
71. Production of manufactured and recovered gases by region, 1990-2019.....	375
72. World production of manufactured and recovered gases by type, 2019.....	375

### **Electricity and Heat**

73. Change in net installed capacity of electricity generating plants by source, 2013-2019.....	383
74. Utilization of installed electric generating capacity by source and region, 2019.....	419
75. World electricity generation by source, 1990-2019.....	454

76. World production of electricity by source and region, 2019.....	455
77. Major countries producing electricity from combustible fuels, 2019.....	455
78. Major countries producing hydro electricity, 2019.....	455
79. Major countries producing nuclear electricity, 2019.....	455
80. Major countries producing electricity from other sources, 2019.....	455
81. World electricity generation by region, 1990-2019.....	491
82. Major electricity producing countries, 2019.....	491
83. Major electricity consuming countries, 2019.....	491
84. Heat production by region, 1990-2019.....	511
85. Major heat producing countries, 2019.....	511
86. World heat production by type, 2019.....	511

Statistics compiled as of December 2021

# INTRODUCTION

The *Energy Statistics Yearbook 2019* is a comprehensive collection of international energy statistics prepared by the United Nations Statistics Division. It is the sixty-third in a series of annual compilations which commenced under the title *World Energy Supplies in Selected Years, 1929-1950*.<sup>1</sup> It updates the statistical series shown in the previous issue. Supplementary series of monthly data on production of energy may be found in the *Monthly Bulletin of Statistics*.<sup>2</sup>

The principal objective of the *Yearbook* is to provide a global framework of comparable data on long-term trends in the supply of both primary and secondary forms of energy. Data for each energy product and aggregated data for the total energy supply are shown for individual countries and territories, and are summarized into regional and world totals. The data are compiled primarily from the annual energy questionnaire distributed by the United Nations Statistics Division and supplemented by official national statistical publications, as well as publications from international and regional organizations. Where official data are not available or are inconsistent, estimates are made by the Statistics Division based on governmental, professional or commercial materials. Estimates include, but are not limited to, extrapolated data based on partial year information, use of annual trends, trade data based on partner country reports, breakdowns of aggregated data and analysis of current energy events.<sup>3</sup>

This issue of the *Yearbook* contains data in original and common energy units (tons of coal equivalent and joules) for the years 2016-2019.<sup>4</sup>

This publication presents energy statistics consistent with the International Recommendations for Energy Statistics (IRES), which were endorsed by the United Nations Statistical Commission in 2011. IRES contains the Standard International Energy Product Classification (SIEC), the first definitive standard classification for energy products. It has been

built on a set of internationally harmonized definitions of energy products developed by the Intersecretariat Working Group on Energy Statistics (InterEnerStat) as mandated by the United Nations Statistical Commission. The adoption of SIEC as an international standard classification for energy products represents a significant step forward for energy statistics at the international level. SIEC not only provides a unified set of product definitions, but also uses a standard coding scheme, a common hierarchy of categories, and provides links to other internationally agreed product classifications, such as the Central Product Classification (CPC) and the Harmonized Commodity Description and Coding System (HS).

Within this methodological framework:

- a) Table 1 shows a more historical perspective of total energy supply, with data for selected years going back to 1990.
- b) Table 2 provides more detail on the components of total energy supply, namely primary production (broken down by type), trade, international bunkers and stock changes. Total energy supply is also shown on a per capita basis.
- c) Table 3 provides more detail on total final consumption of energy products, broken down by consuming sector (including non-energy use), and also shows total final consumption per capita.

By referring to previous volumes of the publication, time series can be established from 1950 to the present for the shown products. In addition to the basic tables showing production, trade, stock changes, international bunkers, supply and consumption, information is included on various other topics such as:

(a) The principal importers and exporters of hard coal, crude oil and natural gas for the years 2018 and 2019;

(b) The capacity of oil refineries and electricity generating plants by type;

(c) The ratio of crude oil and natural gas liquids reserves to crude oil and natural gas liquids production (R/P ratio);

(d) The electricity generated from different

<sup>1</sup>Statistical Papers, Series J, No. 1 (United Nations publication, Sales No. 1952.XVII.3).

<sup>2</sup>Statistical Papers, Series Q, *Monthly Bulletin of Statistics*, (United Nations publication).

<sup>3</sup>For details, see

[unstats.un.org/unsd/energystats/pubs/yearbook/](http://unstats.un.org/unsd/energystats/pubs/yearbook/)

<sup>4</sup>Table 1 shows data back to 1990 to give a more historical perspective.

sources (including both electricity-only and combined heat and power (CHP) plants) such as from combustible fuels, nuclear, hydro, wind, and solar;

(e) The heat produced (from both heat-only and CHP plants) from combustible fuels, geothermal, solar thermal, nuclear, chemical heat, heat pumps and electric boilers, and direct use of solar thermal and geothermal.

The information contained in the *Yearbook* is also available in electronic format<sup>5</sup>. Requests for information should be directed to United Nations Publications at: [order@un.org](mailto:order@un.org).

Acknowledgement is due to the following specialized and intergovernmental agencies whose publications have been utilized in supplementing our statistics: African Energy Commission (AFREC), Asia-Pacific Economic Cooperation (APEC), Food and Agriculture Organization of the United Nations (FAO), International Atomic Energy Agency (IAEA), International Energy Agency of the Organisation

for Economic Co-operation and Development (IEA/OECD), International Renewable Energy Agency (IRENA), International Sugar Organization (ISO), Organization of Arab Petroleum Exporting Countries (OAPEC), Organization of the Petroleum Exporting Countries (OPEC), Organización Latinoamericana de Energía (OLADE), Statistical Office of the European Union (Eurostat), World Energy Council (WEC). Acknowledgement is also made to governmental, energy and statistical authorities of the Member States which have been cooperative in providing data.

The annual energy data are being collected and processed by the Energy Statistics Section of UNSD, headed by Mr. Leonardo Souza. The processing of the energy data and preparation for publication was carried out by Ms. Agnieszka Koscielniak, Mr. Man Soni, Ms. Costanza Giovannelli, Ms. Peng Guo and Mr. Graham Osborn.

Enquiries, comments and suggestions for improving this publication are welcome and should be addressed to: [energy\\_stat@un.org](mailto:energy_stat@un.org).

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<sup>5</sup> For details, see [unstats.un.org/unsd/energystats/pubs/yearbook/](http://unstats.un.org/unsd/energystats/pubs/yearbook/)



## ABBREVIATIONS AND SYMBOLS

The following symbols and abbreviations have been used:

cSt	centistoke
m <sup>3</sup>	cubic metre
°C	degree Celsius
GJ	gigajoule (10 <sup>9</sup> joules)
GWh	gigawatt-hour (10 <sup>6</sup> kWh)
IRES	International Recommendations for Energy Statistics
kcal	kilocalorie
kg	kilogramme
kg/cm <sup>2</sup>	kilogramme per square centimetre
kJ	kilojoule (10 <sup>3</sup> joules)
kWh	kilowatt-hour
LPG	liquefied petroleum gas
mg/g	milligramme per gramme
MJ	megajoule (10 <sup>6</sup> joules)
MW	megawatt
NGL	natural gas liquids
PJ	petajoule (10 <sup>15</sup> joules)
t	metric ton
TCE	ton of coal equivalent
TJ	terajoule (10 <sup>12</sup> joules)
*	estimate by the United Nations Statistics Division
..	data not applicable or not available

# ENERGY PRODUCT DEFINITIONS

This section provides definitions of energy products utilized in the publication. These definitions correspond to SIEC. Some tables may include names or concepts not included in these product definitions. See the specific table's notes for how its product definitions relate to SIEC definitions.

## SOLID FOSSIL FUELS

**Hard coal** – Coals with a gross calorific value (moist, ash-free basis) which is not less than 24 MJ/kg or which is less than 24 MJ/kg provided that the coal has a vitrinite mean random reflectance greater than or equal to 0.6 per cent. Hard coal comprises anthracite and bituminous coals.

**Brown coal** – Coals with a gross calorific value (moist, ash-free basis) less than 24 MJ/kg and a vitrinite mean random reflectance less than 0.6 per cent. Brown coal comprises sub-bituminous coal and lignite.

**Peat** – A solid fuel formed from the partial decomposition of dead vegetation under conditions of high humidity and limited air access (initial stage of coalification). It is available in two forms for use as a fuel, sod peat and milled peat. Only peat used as fuel is included.

**Patent fuel** – A composition fuel made by moulding hard coal fines into briquette shapes with the addition of a binding agent such as pitch.

**Brown coal briquettes** – A composition fuel made of brown coal produced by briquetting under high pressure with or without the addition of a binding agent. Either sub-bituminous coal or lignite may be used, including dried lignite fines and dust.

**Peat products** – This includes products such as peat briquettes derived directly or indirectly from sod peat and milled peat.

**Coal coke** – This group includes the solid, cellular, infusible material remaining after the carbonisation of certain coals. Various cokes are defined according to the type of coal carbonised and their conditions of carbonisation or use: coke oven coke, gas coke, coke breeze and semi cokes. For collection purposes coke breeze and

semi cokes are included with coke oven coke.

**Coal tar** – The liquid by-product of the carbonization of coal in coke ovens. Coal tar may be separated by distillation into several liquid products which may be used for pharmaceutical or wood preservative purposes.

**Other coal products** – coal products not elsewhere specified (if any).

**Oil shale** – A sedimentary rock which contains organic matter in the form of kerogen. Kerogen is a waxy hydrocarbon-rich material regarded as a precursor of petroleum. Oil shale may be burned directly or processed by heating to extract shale oil. Note that this product was formerly included under Lignite by the IEA.

## LIQUID FOSSIL FUELS

**Conventional crude oil** – A mineral oil of fossil origin extracted by conventional means from underground reservoirs, and comprises liquid or near-liquid hydrocarbons and associated impurities such as sulphur and metals. Conventional crude oil exists in the liquid phase under normal surface temperature and pressure, and usually flows to the surface under the pressure of the reservoir. This is termed "conventional" extraction. Crude oil includes condensate from condensate fields, and "field" or "lease" condensate extracted with the crude oil.

The various crude oils may be classified according to their sulphur content ("sweet" or "sour") and API gravity ("heavy" or "light"). There are no rigorous specifications for the classifications, but a heavy crude oil may be assumed to have an API gravity of less than 20° and a sweet crude oil may be assumed to have less than 0.5% sulphur content. For simplicity, this publication often refers to conventional crude oil as simply crude oil.

**Natural gas liquids (NGL)** – Natural gas liquids are a mixture of ethane, propane, butane (normal and iso), (iso) pentane and a few higher alkanes collectively referred to as pentanes plus.

NGL are produced in association with oil or natural gas. They are removed in field facilities or

gas separation plants before sale of the gas. All of the components of NGL except ethane are either liquid at the surface or are liquefied for disposal.

The definition given above is the most commonly used. However, there is some use of terms based on the vapour pressure of the components which are liquid at the surface or can be easily liquefied. The three resulting groups are in order of increasing vapour pressure: condensates, natural gasoline and liquefied petroleum gas.

NGL may be distilled with crude oil in refineries, blended with refined oil products or used directly. NGL differs from LNG (liquefied natural gas) which is obtained by liquefying natural gas from which the NGL has been removed.

**Additives and oxygenates** – Compounds added to or blended with oil products to modify their properties (octane, cetane, cold properties, etc.). Examples are: (a) oxygenates such as alcohols (methanol, ethanol) and ethers [MTBE (methyl tertiary butyl ether), ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether)]; (b) esters (e.g., rapeseed or dimethylester, etc.); and (c) chemical compounds (such as TML, TEL and detergents). Some additives/oxygenates may be derived from biomass while others may be of fossil hydrocarbon origin.

**Other hydrocarbons** – This includes non-conventional oils and hydrogen. Non-conventional oils refer to oils obtained by non-conventional production techniques, that is oils which are extracted from reservoirs containing extra heavy oils or oil sands which need heating or treatment (e.g., emulsification) in situ before they can be brought to the surface for refining/processing. They also include the oils extracted from oil sands, extra heavy oils, coal and oil shale which are at, or can be brought to, the surface without treatment and require processing after mining (ex situ processing). Non-conventional oils may also be produced from natural gas.

The oils may be divided into two groups: (i) oils for transformation (e.g., synthetic crudes extracted from extra heavy oils, oil sands, coal and oil shale); and (ii) oils for direct use (e.g., emulsified oils such as orimulsion and GTL liquids).

**Oil products** – Products obtained from crude oil, non-conventional oils or gases from oil and gas fields. They may be produced through the refining of conventional crude and non-conventional oils or during the separation of natural gas from gases extracted from oil or gas fields. This category includes Aviation gasoline, Motor gasoline, Gasoline-type jet fuel, Kerosene-type jet fuel, Other kerosene, Gas/diesel oil, Fuel oil, LPG, Feedstocks, Naphtha, White spirit and SBP, Lubricants, Bitumen, Paraffin waxes, Petroleum coke, Refinery gas, Ethane, and Other oil products.

**Aviation gasoline** – Gasoline prepared especially for aviation piston engines with additives which assure performance under flight conditions. Aviation gasolines are predominantly alkylates (obtained by combining C4 and C5 isoparaffins with C3, C4 and C5 olefins) with the possible addition of more aromatic components including toluene. The distillation range is 25°C to 170°C.

**Motor gasoline** – A mixture of some aromatics (e.g., benzene and toluene) and aliphatic hydrocarbons in the C5 to C12 range. The distillation range is 25°C to 220°C.

Additives are blended to improve octane rating, improve combustion performance, reduce oxidation during storage, maintain cleanliness of the engine and improve capture of pollutants by catalytic converters in the exhaust system. Motor gasoline may also contain biogasoline products when blended.

**Gasoline-type jet fuel** – Light hydrocarbons for use in aviation turbine power units, distilling between 100°C and 250°C. They are obtained by blending kerosene and gasoline or naphtha in such a way that the aromatic content does not exceed 25 per cent in volume, and the vapour pressure is between 13.7 kPa and 20.6 kPa. Gasoline-type jet fuel is also known as “aviation turbine fuel”.

**Kerosene** – Mixtures of hydrocarbons in the range C9 to C16 and distilling over the temperature interval 145°C to 300°C, but not usually above 250°C and with a flash point above 38°C.

The chemical compositions of kerosenes

depend on the nature of the crude oils from which they are derived and the refinery processes that they have undergone. Kerosenes obtained from crude oil by atmospheric distillation are known as straight-run kerosenes. Such streams may be treated by a variety of processes to produce kerosenes that are acceptable for blending as jet fuels.

Kerosenes are primarily used as jet fuels. They are also used as domestic heating and cooking fuels, and as solvents. Kerosenes may include components or additives derived from biomass when blended.

**Kerosene-type jet fuel** – A blend of kerosenes suited to flight conditions with particular specifications, such as freezing point.

The specifications are set down by a small number of national standards committees, most notably ASTM (U.S.), MOD (UK), GOST (Russia).

**Other kerosene** – Kerosene which is used for heating, cooking, lighting, solvents and internal combustion engines. Other names for this product are burning oil, vaporizing oil, power kerosene and illuminating oil.

**Gas oil/diesel oil** – Gas oils are middle distillates, predominantly of carbon number range C11 to C25 and with a distillation range of 160°C to 420°C. The principal marketed products are fuels for diesel engines (diesel oil), heating oils and marine fuel. Gas oils are also used as middle distillate feedstock for the petrochemical industry and as solvents. Also included here is heavy gasoil, which is a mixture of predominantly gas oil and fuel oil which distills in the range of approximately 380°C to 540°C.

**Fuel oil** – Comprises residual fuel oil and heavy fuel oil. Residual fuel oils have a distillation range of 350°C to 650°C and a kinematic viscosity in the range 6 to 55 cSt at 100°C. Their flash point is always above 60°C and their specific gravity is above 0.95. Heavy fuel oil is a general term describing a blended product based on the residues from various refinery processes. Other names commonly used to describe fuel oil include: bunker fuel, bunker C, fuel oil No. 6, industrial fuel oil, marine fuel oil and black oil.

Residual and heavy fuel oil are used in medium to large industrial plants, marine

applications and power stations in combustion equipment such as boilers, furnaces and diesel engines. Residual fuel oil is also used as fuel within the refinery.

**Liquefied petroleum gases (LPG)** – LPG refers to liquefied propane (C<sub>3</sub>H<sub>8</sub>) and butane (C<sub>4</sub>H<sub>10</sub>) or mixtures of both. Commercial grades are usually mixtures of the gases with small amounts of propylene, butylene, isobutene and isobutylene stored under pressure in containers.

The mixture of propane and butane used varies according to purpose and season of the year. The gases may be extracted from natural gas at gas separation plants or at plants re-gasifying imported liquefied natural gas. They are also obtained during the refining of crude oil. LPG may be used for heating and as a vehicle fuel.

See also the definition for natural gas liquids. Certain oil field practices also use the term LPG to describe the high vapour pressure components of natural gas liquids.

**Ethane** – A naturally straight-chain hydrocarbon (C<sub>2</sub>H<sub>6</sub>). Ethane is obtained at gas separation plants or from the refining of crude oil. It is a valuable feedstock for petrochemical manufacture.

**Refinery gas** – Includes a mixture of non-condensable gases mainly consisting of hydrogen, methane, ethane and olefins obtained during distillation of crude oil or treatment of oil products (e.g., cracking) in refineries or from nearby petrochemical plants. It is used mainly as a fuel within the refinery.

**Feedstocks** – This includes refinery feedstocks, i.e. oils or gases from crude oil refining or the processing of hydrocarbons in the petrochemical industry which are destined for further processing in the refinery excluding blending. Typical feedstocks include naphthas, middle distillates, pyrolysis gasoline and heavy oils from vacuum distillation and petrochemical plants.

**Naphtha** – Light or medium oils distilling between 30°C and 210°C which do not meet the specification for motor gasoline. Different naphthas are distinguished by their density and the content of paraffins, isoparaffins, olefins, naphthenes and aromatics. The main uses for naphthas are as feedstock for high octane

gasolines and the manufacture of olefins in the petrochemical industry.

**White spirit and SBP industrial spirits –**

White spirit and special boiling point industrial spirits (SBP) are refined distillate intermediates with a distillation in the naphtha/kerosene range. They are mainly used for non-fuel purposes and sub-divided as: (a) white spirit - an industrial spirit with a flash point above 30°C and a distillation range of 135°C to 200°C; and (b) industrial spirit (SBP) - light oils distilling between 30°C and 200°C.

There are 7 or 8 grades of industrial spirits, depending on the position of the cut in the distillation range. The grades are defined according to the temperature difference between the 5 per cent and 90 per cent volume distillation points (which is not more than 60°C). White spirit and Industrial spirits are mostly used as thinners and solvents.

**Lubricants –** Oils, produced from crude oil, for which the principal use is to reduce friction between sliding surfaces and during metal cutting operations.

Lubricant base stocks are obtained from vacuum distillates which result from further distillation of the residue from atmospheric distillation of crude oil. The lubricant base stocks are then further processed to produce lubricants with the desired properties.

**Bitumen –** A solid, semi-solid or viscous hydrocarbon with a colloidal structure, being brown to black in color. It is obtained as a residue in the distillation of crude oil and by vacuum distillation of oil residues from atmospheric distillation. It should not be confused with the non-conventional primary extra heavy oils which may also be referred to as bitumen.

In addition to its major use for road pavements, bitumen is also used as an adhesive, a waterproofing agent for roof coverings and as a binder in the manufacture of patent fuel. It may also be used for electricity generation in specially designed power plants.

Bitumen is also known in some countries as asphalt but in others asphalt describes the mixture of bitumen and stone aggregate used for road pavements.

**Paraffin waxes –** Residues extracted when dewaxing lubricant oils. The waxes have a crystalline structure which varies in fineness according to the grade, and are colourless, odourless and translucent, with a melting point above 45°C.

Paraffin waxes are also known as “petroleum waxes”.

**Petroleum coke –** Petroleum coke is a black solid obtained mainly by cracking and carbonizing heavy hydrocarbon oils, tars and pitches. It consists mainly of carbon (90 to 95 per cent) and has a low ash content.

The two most important categories are "green coke" and "calcined coke".

Green coke (raw coke) is the primary solid carbonization product from high boiling hydrocarbon fractions obtained at temperatures below 630°C. It contains 4-15 per cent by weight of matter that can be released as volatiles during subsequent heat treatment at temperatures up to approximately 1330°C.

Calcined coke is a petroleum coke or coal-derived pitch coke obtained by heat treatment of green coke to about 1330°C. It will normally have a hydrogen content of less than 0.1 per cent by weight.

In many catalytic operations (e.g., catalytic cracking) carbon or catalytic coke is deposited on the catalyst, thus deactivating it. The catalyst is reactivated by burning off the coke which is used as a fuel in the refining process. The coke is not recoverable in a concentrated form.

**Other oil products –** Products (including partly refined products) from the refining of crude oil and feedstocks which are not specified above. These products will include basic chemicals and organic chemicals destined for use within the refinery or for sale to or processing in the chemical industry such as propylene, benzene, toluene and xylene.

## **GASEOUS FOSSIL FUELS**

**Natural gas –** A mixture of gaseous hydrocarbons, primarily methane, but generally also including ethane, propane and higher

hydrocarbons in much smaller amounts and some non-combustible gases such as nitrogen and carbon dioxide.

The majority of natural gas is separated from both "non-associated" gas originating from fields producing hydrocarbons only in gaseous form, and "associated" gas produced in association with crude oil.

The separation process produces natural gas by removing or reducing the hydrocarbons other than methane to levels which are acceptable in the marketable gas. The natural gas liquids (NGL) removed in the process are distributed separately.

Natural gas also includes methane recovered from coal mines (colliery gas) or from coal seams (coal seam gas) and shale gas. When distributed it may also contain methane from anaerobic fermentation or the methanation of biomass.

Natural gas may be liquefied (LNG) by reducing its temperature in order to simplify storage and transportation when production sites are remote from centres of consumption and pipeline transportation is not economically practicable.

**Gas works gas (and other manufactured gases for distribution)** – This includes gases obtained from the carbonisation or gasification of carbonaceous material of fossil or biomass origins in Gas Works. The gases comprise: (a) gases obtained from carbonisation or gasification of coals, cokes, biomass or waste; and (b) substitute natural gas (a methane-rich gas) made from synthesis gas.

Synthesis gas is a mixture of mainly hydrogen and carbon monoxide obtained by cracking hydrocarbons with high temperature steam.

**Coke oven gas** – A gas produced from coke ovens during the manufacture of coke oven coke.

**Blast furnace gas** – The by-product gas of blast furnace operation consisting mainly of nitrogen, carbon dioxide and carbon monoxide. The gas is recovered as it leaves the furnace. Its calorific value arises mainly from the carbon monoxide produced by the partial combustion of coke and other carbon bearing products in the blast furnace. It is used to heat blast air and as a

fuel in the iron and steel industry. It may also be used by other nearby industrial plants. Note that where carbonised biomass (e.g, charcoal or animal meal) is used in blast furnaces, part of the carbon supply may be considered renewable.

**Other recovered gases** - Combustible gases of solid carbonaceous origin recovered from manufacturing and chemical processes not elsewhere defined. Examples of fuel gas production from metals and chemicals processing are in the production of zinc, tin, lead, ferroalloys, phosphorus and silicon carbide.

## BIOFUELS AND WASTE

**Fuelwood, wood residues and by-products** – Fuelwood or firewood (in log, brushwood, pellet or chip form) obtained from natural or managed forests or isolated trees. Also included are wood residues used as fuel and in which the original composition of wood is retained. Charcoal and black liquor are excluded.

**Bagasse** – The fuel obtained from the fibre which remains after juice extraction in sugar cane processing. It is often used as a fuel within the sugar milling industry.

**Charcoal** – The solid residue from the carbonisation of wood or other vegetal matter through slow pyrolysis.

**Animal waste** – Excreta of animals, meat and fish residues which, when dry, are used directly as a fuel.

This excludes waste used in anaerobic fermentation plants. Fuel gases from these plants are included under biogases.

**Vegetal waste** – Refers to SIEC's 'Other vegetal materials and residues', which are solid primary biofuels not specified elsewhere, including straw, vegetable husks, ground nut shells, pruning brushwood, olive pomace and other wastes arising from the maintenance, cropping and processing of plants.

**Municipal waste** – Household waste and waste from companies and public services that resembles household waste and which is collected at installations specifically designed for the disposal of mixed wastes with recovery of combustible liquids, gases or heat.

Municipal wastes can be divided into renewable and non-renewable fractions.

**Industrial waste** – Non-renewable waste which is combusted with heat recovery in plants other than those used for the incineration of municipal waste.

Examples are used tires, specific residues from the chemical industry and hazardous wastes from health care. Combustion includes co-firing with other fuels.

The renewable portions of industrial waste combusted with heat recovery are classified according to the biofuels which best describe them.

**Black liquor** – The alkaline-spent liquor obtained from the digesters during the production of sulphate or soda pulp required for paper manufacture. The lignin contained in the liquor burns to release heat when the concentrated liquor is sprayed into a recovery furnace and heated with hot gases at 900°C. Black liquor is used as a fuel in the pulping process.

**Biogasoline** – Liquid fuels derived from biomass and used in spark-ignition internal combustion engines.

Common examples are: bioethanol (including both hydrous and anhydrous ethanol); biomethanol; biobutanol; bio ETBE (ethyl-tertio-butyl-ether); and bio MTBE (methyl-tertio-butyl-ether). Biogasoline may be blended with petroleum gasoline or used directly in engines. The blending may take place in refineries or at or near the point of sale.

**Biodiesels** – Liquid biofuels derived from biomass and used in diesel engines.

Biodiesels obtained by chemical modification are a linear alkyl ester made by transesterification of vegetable oils or animal fats with methanol. The transesterification distinguishes biodiesel from straight vegetable and waste oils. Biodiesel has a flash point of around 150°C and a density of about 0.88 kg/litre. Biological sources of biodiesel include, but are not limited to, vegetable oils made from canola (rapeseed), soybeans, corn, oil palm, peanut or sunflower. Some liquid biofuels (straight vegetable oils) may be used without chemical modification and their use usually

requires modification of the engine.

A further category of diesel fuels can be produced by a range of thermal processes (including for example gasification followed by Fischer Tropsch synthesis, pyrolysis followed by hydrogenation, or conversion of sugar to hydrocarbons using microorganisms (e.g. yeast)). A wide range of biomass feedstocks, including cellulosic materials and algal biomass could be used in such processes.

Biodiesels may be blended with petroleum diesel or used directly in diesel engines.

**Bio jet kerosene** – Liquid biofuels derived from biomass and blended with or replacing jet kerosene. Bio jet kerosene can be produced by a range of thermal processes (including for example gasification followed by Fischer-Tropsch synthesis, pyrolysis followed by hydrogenation, or conversion of sugar to hydrocarbons using microorganisms (e.g. yeast)). A wide range of biomass feedstocks, including cellulosic materials and algal biomass could be used in such processes.

**Other liquid biofuels** – Includes liquid biofuels not elsewhere specified.

**Biogases** – Gases arising from the anaerobic fermentation of biomass and the gasification of solid biomass (including biomass in wastes).

The biogases from anaerobic fermentation are composed principally of methane and carbon dioxide and comprise landfill gas, sewage sludge gas and other biogases from anaerobic fermentation.

Biogases can also be produced from thermal processes (by gasification or pyrolysis) of biomass and are mixtures containing hydrogen and carbon monoxide (usually known as syngas) along with other components. These gases may be further processed to modify their composition and can be further processed to produce substitute natural gas.

The gases are divided into two groups according to their production: biogases from anaerobic fermentation and biogases from thermal processes.

Biogases are used mainly as a fuel but can

be used as a chemical feedstock.

## ELECTRICITY AND HEAT

**Electricity** –The transfer of energy through the physical phenomena involving electric charges and their effects when at rest and in motion.

Electricity can be generated through different processes such as: the conversion of energy contained in falling or streaming water, wind or waves; the direct conversion of solar radiation through photovoltaic processes in semiconductor devices (solar cells); or by the combustion of fuels.

Electricity production in this Yearbook refers to gross production, which is the sum of the electrical energy production by all the generating units/installations concerned (including pumped storage) measured at the output terminals of the main generators.

*Editorial note:* as of the 2012 edition of the Yearbook, Table 1 changed in scope as described in the introduction. The total energy supply figure is now consistent with energy balances as defined within IRES and published in the *Energy Balances* and *Electricity Profiles*<sup>6</sup> that are complementary to this publication. As such, see the changes in presentation for electricity from non-combustible fuels described below under General Notes.

**Primary electricity** refers to electrical energy from hydro, solar photovoltaics, wind, tide, wave and ocean sources.

**Secondary electricity** is defined as electricity derived from a product already accounted for within energy statistics. This includes electricity generated from combustible fuels, in addition to electricity coming from solar heat, nuclear heat, geothermal heat and heat from chemical sources.

**Main activity producers** – These are

enterprises which produce electricity or heat as their principal activity. Formerly known as public utilities, these enterprises may be privately or publicly owned companies.

**Autoproducers (electricity)** – These are enterprises which produce electricity but for whom the production is not their principal activity.

**Autoproducers (heat)** – These are enterprises which produce heat for sale but for whom the production is not their principal activity. Deliveries of fuels for heat generated by an establishment for its own purposes are classified within the part of final consumption where they are consumed, and not as transformation inputs.

**Heat** – The energy obtained from the translational, rotational and vibrational motion of the constituents of matter, as well as changes in its physical state.

Heat can be produced by different production processes, both primary and secondary. It is usually sold in the form of steam or hot water, and for the purposes of energy statistics it is important to note that heat only represents quantities of energy for sale (or generated and consumed directly by direct use of solar thermal or geothermal). This means that any quantities “generated” at an end-use site (for example through the combustion of coal to power a boiler, or an electric filament heating a kettle) are not considered within the scope of heat production.

In Tables 1 and 2, which follow energy balance methodology, the heat column includes primary heat from sources such as nuclear, solar thermal and geothermal which are used to generate electricity. These quantities are not taken into account in Table 34.

**Uranium production** – Comprises the U content of uranium ores and concentrates intended for treatment for uranium recovery.

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<sup>6</sup> Statistical Papers, Series W (United Nations publication).



# ENERGY FLOW DEFINITIONS

**Production** is defined as the capture, extraction or manufacture of fuels or energy in forms which are ready for general use. In energy statistics, two types of production are distinguished, primary and secondary.

Primary production is the capture or extraction of fuels or energy from natural energy flows, the biosphere and natural reserves of fossil fuels within the national territory in a form suitable for use. Inert matter removed from the extracted fuels and quantities reinjected, flared or vented are not included. The resulting products are referred to as “primary” products.

Secondary production is the manufacture of energy products through the process of transformation of primary fuels or energy. The quantities of secondary fuels reported as production include quantities lost through venting and flaring during and after production. In this manner, the mass, energy and carbon within the primary source(s) from which the fuels are manufactured may be balanced against the secondary fuels produced. Fuels, electricity and heat produced are usually sold but may be partly or entirely consumed by the producer (but see the definition of autoproducer heat plants for an important exception.)

When considering complete energy balances (such as in Table 1, where total energy supply is displayed), or indeed adding together a mix of primary and secondary fuels (like Table 4), the distinction between primary and secondary production is crucial. Within a complete energy balance (or a coal table showing both primary and secondary energy), only primary energy is shown to avoid double counting of quantities transformed into secondary products. For the product-specific tables however, this distinction is not necessary as double counting does not apply, and so primary and/or secondary production is included under production to give a complete idea of the “supply” of that product. See individual table notes for details.

**Imports** of energy products comprise all fuel and other energy products entering the national territory. Goods simply being transported through a country (goods in transit) and goods temporarily admitted are excluded but re-imports, which are domestic goods exported but subsequently

readmitted, are included. The bunkering of fuel outside the reference territory by national merchant ships and civil aircraft engaged in international travel is excluded from imports. Fuels delivered to national merchant ships and civil aircraft which are outside of the national territory and are engaged in international travel should be classified as “International Marine” or “Aviation Bunkers”, respectively, in the country where such bunkering is carried out. Note that the “country of origin” of energy products should be recorded as a country from which goods were imported.

**Exports** of energy products comprise all fuel and other energy products leaving the national territory with the exception that exports exclude quantities of fuels delivered for use by merchant (including passenger) ships and civil aircraft, of all nationalities, during international transport of goods and passengers. Goods simply being transported through a country (goods in transit) and goods temporarily withdrawn are excluded but re-exports, foreign goods exported in the same state as previously imported, are included. Fuels delivered to foreign merchant ships and civil aircraft engaged in international travel are classified as “International Marine” or “Aviation Bunkers”, respectively. Note that “country of destination” of energy products (that is country of the last known destination as it is known at the time of exportation) should be recorded as a country to which these products are exported to.

For electricity, trade data include “goods in transit”, i.e. electricity transmitted through the country from one neighbour to another, as there is no practical way of discerning which quantities are re-exported and which are consumed by the transit country.

**International Marine Bunkers** are quantities of fuels delivered to merchant (including passenger) ships, of any nationality, for consumption during international voyages transporting goods or passengers. International voyages take place when the ports of departure and arrival are in different national territories. Fuels delivered for consumption by ships during domestic transportation, fishing or military uses are not included here. For the purposes of energy statistics International Marine Bunkers are not included in exports.

**International Aviation Bunkers** are quantities of fuels delivered to civil aircraft, of any nationality, for consumption during international flights transporting goods or passengers. International flights take place when the ports of departure and arrival are in different national territories. Fuels delivered for consumption by aircraft undertaking domestic or military flights are not included here. For the purposes of energy statistics International Aviation Bunkers are not included in exports.

**Stocks** – For the purposes of energy statistics, stocks are quantities of energy products that are held on the national territory and can be used to: (a) maintain service under conditions where supply and demand are variable in their timing or amount due to normal market fluctuations, or (b) supplement supply in the case of a supply disruption. Stocks used to manage a supply disruption may be called “strategic” or “emergency” stocks and are often held separately from stocks designed to meet normal market fluctuations. **Stock changes** are defined as the increase (stock build) or decrease (stock draw) in the quantity of stock over the reporting period and are thus calculated as the difference between the

closing and opening stocks.

**Energy supply** – is defined as energy production plus imports minus exports minus international marine bunkers minus international aviation bunkers minus stock changes. Depending on the table in this Yearbook, production can refer to either primary, secondary, or both primary and secondary production (see the note under production above).

**Energy industries own use** refers to consumption of fuels and energy for the direct support of the production, and preparation for use of fuels and energy. Quantities of fuels which are transformed into other fuels or energy are not included here but within the transformation use. Neither are quantities which are used within parts of the energy industry not directly involved in the activities listed in the definition. These quantities are reported within final consumption.

**Final Consumption** refers to all fuel and energy that is delivered to users for both their energy and non-energy uses which do not involve a transformation process.

# CAPACITIES AND OTHER DEFINITIONS

## CAPACITIES

**Refinery capacity** is the theoretical maximum capacity of crude oil refineries available for operation at the end of the reference year.

**Net maximum electrical capacity** is the maximum active power that can be supplied continuously, with all plants running, at the point of outlet (i.e., after taking the power supplies for the station auxiliaries and allowing for the losses in those transformers considered integral to the station). This assumes no restriction of interconnection to the network. Does not include overload capacity that can only be sustained for a short period of time (e.g., internal combustion engines momentarily running above their rated capacity). The net maximum electricity-generating capacity represents the sum of all individual plants' maximum capacities available to run continuously throughout a prolonged period of operation in a day. For annual data, the net maximum electrical capacity is considered as measured at the end of the reference year.

## ENERGY RESOURCES AND RESERVES<sup>7</sup>

### Hard Coal, Brown coal and Peat

**Proved amount in place** is the resource remaining in known deposits that has been carefully measured and assessed as exploitable under present and expected local economic conditions with existing available technology.

**Proved recoverable reserves** are the tonnage within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology.

**Estimated additional amount in place** is the indicated and inferred tonnage additional to the proved amount in place that is of foreseeable economic interest. It includes estimates of amounts which could exist in unexplored extensions of known deposits or in undiscovered deposits in known coal-bearing areas, as well as amounts inferred through knowledge of

favourable geological conditions. Speculative amounts are not included.

### Crude Oil and Natural Gas Liquids

**Proved recoverable reserves** are the quantity within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology. Proved amount in place is the resource remaining in known natural reservoirs that has been carefully measured and assessed as exploitable under present and expected local economic conditions with existing available technology.

The **ratio of crude oil reserves to production (R/P ratio)** is used to show the length of time those reserves would last in years if production continued at the then-current level and there were no further increases in the proved recoverable reserves. The ratio is calculated by dividing the proved recoverable crude oil and NGL reserves (which for the most part refer to reserves at the end of 2014) by the production. These R/P ratios should be viewed with caution. The definition used for proved recoverable reserves is very restrictive and confined to those known reserves which can be recovered with reasonable certainty under existing economic conditions. The R/P ratios, therefore, can frequently give a very pessimistic impression of the expected life of a country's reserves. In addition, for some of those countries whose R/P ratios appear very large, it can reasonably be assumed that the figures for proved recoverable reserves include some unproved reserves.

### Oil Shale and Bituminous Sands

**Proved recoverable reserves** are the amount, expressed as tonnage of recoverable synthetic oil that has been both carefully measured and has also been assessed as exploitable under present and expected local economic conditions with existing available technology.

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<sup>7</sup>World Energy Resources 2016.  
World Energy Council (WEC)

## Natural Gas

**Proved recoverable reserves** are the volume within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology.

## Uranium

**Reasonably assured resources** refer to recoverable uranium that occurs in known mineral deposits of delineated size, grade and configuration such that the quantities which could be recovered within the given production cost ranges with currently proven mining and processing technology can be specified. Estimates of tonnage and grade are based on specific sample data and measurements of the deposits and on knowledge of deposit characteristics.

**Inferred Resources** refer to recoverable uranium (in addition to reasonably assured resources) that is inferred to occur, based on direct geological evidence, in extensions of well-explored deposits and in deposits in which geological continuity has been established, but where specific data and measurements of the deposits and knowledge of their characteristics are considered to be inadequate to classify the resource as reasonably assured resources.

## Hydropower

**Gross theoretical capability** is the annual energy potentially available in the country if all natural flows were turbinized down to sea level or to the water level of the border of the country (if the water course extends into another country) with 100% efficiency from the machinery and driving water-works. Unless otherwise stated, the figures have been estimated on the basis of atmospheric precipitation and water runoff.

# GENERAL NOTES

## Calculation of primary energy equivalent for electricity and heat

As mentioned previously, the publication now treats electricity and heat consistently with IRES energy balances. Notably, this leads to the following notional efficiencies applying to electricity and heat generation (to back calculate the primary energy):

- 100% for electricity from hydro, wind, tide, wave, ocean and solar PV;
- 33% for electricity from nuclear heat or solar thermal;
- 100% for solar thermal heat;
- 50% for heat produced from geothermal heat;
- 10% for electricity from geothermal heat.

## Consumption

Consumption throughout the *Yearbook* is defined consistently with the definition of final consumption in IRES, namely the sum of flows reflecting energy consumption by energy consumers, as well as non-energy use of energy products. As such, the publication should no longer have the same issues with negative consumption figures that previous versions did, when consumption was calculated based on supply flows and as such negative figures could appear for countries that exported secondary products.

## Negative Supply

Negative supply can represent a residual or statistical difference between production and exports when a particular product is mainly exported, or when a transferred product is subsequently exported.

## Time Period

The period to which the data refer is the calendar year, with the exception of the data of the following countries which refer to the fiscal year:

Afghanistan and Iran (Islamic Rep. of) - beginning 21 March of the year stated;

Australia, Bangladesh, Bhutan, Egypt (for the latter two, electricity only), Nepal - ending June of the year stated;

Pakistan - starting July of the year stated

India, Japan and Myanmar - beginning April of the year stated.

## Trade data

Figures displayed for international trade by partner country in Tables 6, 15 and 28 are based on data from the International Energy Agency and from the United Nations Statistics Division COMTRADE (Commodity Trade Statistics). The total of all exports will likely differ from the figures given in other tables because not all of the importers are included, and also possibly because of definitional differences between data sources.

## Per Capita Data

Data on a *per capita* basis use population data from the United Nations Population Division as a denominator. These indicators may sometimes show differences for certain years compared to previous versions of this publication, due to revisions made by the Population Division rather than changes to the underlying energy data.

## Coverage

As Table 1 contains data back to 1990, data are included for former countries such as the Union of Soviet Socialist Republics, and older versions of countries such as Ethiopia which have since had territories split from them.

# GEOGRAPHICAL NOTES

**Australia** – Data exclude the overseas territories.

**Bonaire, Sint Eustatius, Saba** – Data prior to 2012 are included in Netherlands Antilles (former).

**China** – Data exclude Hong Kong and Macao Special Administrative Regions (Hong Kong SAR and Macao SAR) and Taiwan Province.

**Curaçao** – Data prior to 2012 are included in Netherlands Antilles (former).

**Czechoslovakia** – prior to 1993, refers to the former Czechoslovakia composed of Czechia and Slovakia.

**Denmark** – Data exclude Greenland and the Danish Faroes.

**France** – Data up to 2010 include Monaco and exclude the following overseas departments and territories: Guadeloupe, French Guiana, Martinique, Mayotte, New Caledonia, French Polynesia, Réunion, Saint Barthélemy, Saint Martin, St. Pierre and Miquelon, and Wallis and Futuna. From 2011 onwards, data include Monaco and the overseas departments (Guadeloupe, French Guiana, Martinique, Mayotte and Réunion), excluding the overseas collectivities: New Caledonia, French Polynesia, Saint Barthélemy, Saint Martin, St. Pierre and Miquelon, and Wallis and Futuna.

**French Guiana** – Data after 2010 are included in France.

**Germany** – Through the accession of the **German Democratic Republic** to the **Federal Republic of Germany** with effect from 3 October 1990, the two German States united to form one sovereign state. Data for 1990 are shown separately for the former states.

**Guadeloupe** – Data after 2010 are included in France.

**Indonesia** – Data include Timor-Leste until 2001.

**Italy** – Data include San Marino and the Holy See.

**Japan** – Data include Okinawa.

**Kuwait** – The data for crude oil production include 50 per cent of the output of the Neutral Zone.

**Martinique** – Data after 2010 are included in France.

**Mayotte** – Data after 2010 are included in France.

**Netherlands** – Data exclude Suriname and the Netherlands Antilles (former).

**Netherlands Antilles (former)** – The country, comprising Bonaire, Curaçao, Saba, Sint Eustatius and Sint Marteen (Dutch part), was dissolved on 10 October 2010. For the purposes of this yearbook, data up to 2011 refer to the former territory of the Netherlands Antilles as it was known prior to 10 October 2010.

**Pacific Islands** – Until 1991, Trust Territory comprising Federated States of Micronesia, Marshall Islands, Northern Mariana Islands and Palau.

**Portugal** – Data include the Azores and Madeira.

**Republic of Moldova** – Data exclude Transnistria and the municipality of Bender.

**Réunion** – Data after 2010 are included in France.

**Saudi Arabia** – Data for crude oil production include 50 per cent of the output of the Neutral Zone.

**Serbia** – Data exclude Kosovo, which is shown separately.

**Serbia and Montenegro** – Data exclude Kosovo from 2000 onwards. As a former country/area, it appears in this edition only in Table 1.

**Sint Maarten (Dutch part)** – Data prior to 2012 are included in Netherlands Antilles (former).

**South Sudan** – Data prior to 2012 are included in Sudan (former).

**Spain** – Data include the Canary Islands.

**Sudan** – Data prior to 2012 are included in Sudan (former).

**Sudan (former)** – South Sudan became an independent state on 9 July 2011. This country represents the whole territory of Sudan as it was on 1 January 2011 for data up to and including 2011.

**Switzerland** – Data include Liechtenstein for oil statistics.

**Ukraine** – The Government of Ukraine has informed the United Nations that it is not in a position to provide statistical data concerning the Autonomous Republic of Crimea and the city of Sevastopol.

**Union of Soviet Socialist Republics** – Referred to as USSR, comprised up to 1990 Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania,

Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

**United Kingdom** – Shipments of coal and oil to Jersey, Guernsey and the Isle of Man from the United Kingdom are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland.

**United States** – Includes the 50 states and the District of Columbia. Oil statistics as well as coal trade statistics also include Puerto Rico, Guam and the U.S. Virgin Islands.

**Yemen** – On 22 May 1990 **Democratic Yemen** and **Yemen Arab Republic** merged to form a single State. Since that date they have been represented as one Member with the name 'Yemen'. Data for 1990 are shown separately for the former states.

**Yugoslavia** – Data until 1991 refer to the former Socialist Federal Republic of Yugoslavia, namely Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Slovenia and Serbia (including Kosovo).

## COUNTRY-SPECIFIC INFORMATION

**Armenia** – Other vegetal material and residues data are available from 2012 onward, Animal waste production and consumption are available from 2015 onward.

**Belarus** – Prior to 2013, kerosene-type jet fuel is reported under other oil products.

**Bulgaria** – Production of crude oil is confidential in 2019.

**China** – Data for other kerosene include kerosene-type jet fuel until 2013.

**China, Hong Kong SAR** – Data on kerosene-type jet fuel include Aviation gasoline and other kerosene.

**China, Macao SAR** – For confidentiality reasons, some data on coal and coal products, petroleum products and biomass are not available.

**Estonia** – There are breaks in the series of coke oven gas and gas works gas, as from 2015 onward these products include the breakdown of oil shale gases. Revisions are pending.

**France** – For confidentiality reasons, the category Blast furnace gas also includes coke oven gas and other recovered gases from 2018 onwards. The information about losses of blast furnace gas, coke oven gas and other recovered gases are available from 2017 onward and reported under “other energy uses”.

**Germany** – Trade data of natural gas up to 2017 include transit volumes.

**Greenland** – Data for kerosene-type jet fuel include other kerosene.

**Ireland** – Due to confidentiality issues patent fuel quantities are aggregated with anthracite figures.

**Israel** – For confidentiality reasons, data on electricity generation from hydro, wind and autoproducers biogases are aggregated under autoproducers wind from 2016 onward.

**Kazakhstan** – The Committee of Statistics of Kazakhstan constantly works on improving data

quality and aligning their data collection and dissemination system with the *International Recommendations for Energy Statistics*.

Coke oven throughputs from 2014 until 2019 are under verification. Natural gas production may include unmarketable gas up to 2018 data, historical revisions are pending.

**Lesotho** – In 2017, the Bureau of Statistics conducted the “Household Energy Consumption Survey 2017” in order to establish a baseline for energy consumption in households. The data on supply and consumption of animal waste and fuelwood for 2017 are based on the results of this new survey. Supply and consumption data of animal waste and fuelwood from 2009 to 2016 were estimated by UNSD to avoid breaks in the time series. Revisions are pending.

**Madagascar** – Data for bitumen include petroleum coke.

**Russian Federation** – The main source of Russian trade statistics is the Federal Customs Service of the Russian Federation. As a result, some of the figures may not include the mutual trade with the Member States of the Eurasian Economic Union. Some of the crucial trade datapoints were estimated by UNSD in order to avoid undercounting on the world level and for international comparison purposes.

Kerosene-type jet fuel statistics are confidential, and as such were estimated by UNSD.

Ethane figures are under investigation and should be treated with caution.

**Senegal** – The sources of trade data for 2017 are the Bureaux de change au Sénégal and this may lead to breaks in time series between 2016 and 2017.

Manantali dam and Félou hydro electricity plants are situated in Mali, but are owned by Mali, Senegal and Mauritania, supplying electricity to these three countries. Following the *International Recommendations for Energy Statistics*, electricity obtained by Senegal from these plants are counted as imports, and not as Senegalese hydro electricity production.



**Tajikistan** – The Agency on Statistics under President of the Republic of Tajikistan is constantly working on increasing transparency and improving the quality of energy data.

Starting with 2016, more granular data on coal consumption are available. This leads to breaks in time series between 2015 and 2016 data.

New information on quantities of fuelwood consumed for energy purposes in Tajikistan are available for 2016 as a result of a survey conducted by the Agency on Statistics, the revised historical time series were estimated by UNSD.

**Ukraine** – For confidentiality reasons, data on the following products (mainly on production) may not be available or may be included with other products: anthracite (included with other bituminous coal), sub-bituminous coal (included with other bituminous coal), lignite (included with peat), patent fuel (included with peat briquettes), aviation gasoline, kerosene-type jet fuel, other

kerosene, petroleum coke, paraffin waxes and white spirit (the latter three included with other oil products), gasworks gas (included with other recovered gases). 2018 and 2019 data on motor gasoline and gas oil/diesel oil production were estimated based on the information found on the Naftogaz website (<https://www.naftogaz.com/>)

**United Kingdom** – Shipments of coal and oil to the Channel Islands and the Isle of Man from the United Kingdom are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland.

**Uzbekistan** – In 2019, the State Committee of the Republic of Uzbekistan on Statistics released more granular energy supply information, starting with 2013 data and with 2018 data. As a result, there are breaks in time series for many products and flows between 2012 and 2012, and between 2018 and 2019. For historical data, revisions are pending.

## UNITS OF MEASUREMENT AND CONVERSION

Metric units of measurement are used throughout the *Yearbook*. The following tables provide the necessary factors for converting energy data from one measurement system (mass, volume or heat) to another. Unless otherwise stated in the Table Notes, in the case of solid fuels, liquid fuels and gases, the conversions are based on the net calorific value.

The comparison between different fuels is presented in metric tons of coal equivalent (TCE, Table 4), and terajoules (Tables 1, 2, 3 and 12) on the basis of the heat energy which may be obtained from each of them. One TCE is defined as 0.0293076 TJ, or 29307.6 MJ. This is derived from the standard coal equivalency of 7000 calories per gram.

The procedure to convert from original units to the common unit terajoule is as follows:

- Data in original (mass) units multiplied by the factors in Table I will give data in terajoules.

Further, to convert electricity data to terajoules, the following energy equivalence is applied: 1 GWh = 3.6 TJ.

Data on natural gas are collected in terajoules on a gross calorific value basis by convention. When comparing natural gas with other energy sources, it is more appropriate to compare useful energy, and thus the data have been converted to be on a net calorific basis by multiplying them by 0.9.

**Table I**  
**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>HARD COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>
Albania	14.3	20.4	20.4	20.4
Argentina	24.7	24.7	24.7	24.7
Australia	27.0	27.0	26.9	26.9
Austria	28.1	28.4	28.4	28.0
Azerbaijan	27.7	27.7	27.7	27.7
Bangladesh	20.9	20.9	20.9	20.9
Belarus	25.2	24.5	23.7	24.7
Belgium	27.8	29.4	29.4	29.5
Bosnia and Herzegovina	29.1	29.1	29.1	29.1
Botswana	23.6	23.6	23.6	23.6
Brazil	15.8	16.8	16.7	16.7
Bulgaria	28.0	25.2	27.4	26.9
Canada	25.0	25.0	25.0	25.1
Chile	16.8	17.0	16.7	16.7
China	20.8	20.8	20.8	20.8
China, Hong Kong SAR	26.4	26.4	26.4	26.4
Colombia	27.2	27.2	27.2	28.8
Croatia	25.1	25.1	25.1	24.6
Czechia	27.5	26.6	26.5	27.1
Denmark	24.3	24.3	26.6	23.9
Egypt	25.7	25.7	25.8	25.8
Estonia	27.2	22.0	22.0	24.9
Finland	26.7	26.6	26.8	27.0
Georgia	27.6	27.6	27.6	27.6
Germany	29.1	29.1	29.1	27.4
Greece	25.5	23.3	25.9	26.1
Guatemala	28.9	28.9	28.9	28.9
Hungary	31.1	29.4	30.0	29.7
Iceland	28.1	28.1	27.8	27.8
India	16.5	16.1	16.0	15.9
Indonesia	25.9	25.9	25.9	24.5
Iran (Islamic Republic of)	27.8	28.0	28.0	28.0
Ireland	25.1	25.8	25.8	26.9
Israel	24.9	24.9	24.9	24.8
Japan	21.4	24.4	23.2	23.2
Kazakhstan	18.6	18.6	18.9	17.9
Korea, Democratic People's Republic of	26.5	26.5	26.5	26.5
Korea, Republic of	18.6	19.4	19.4	19.4
Kyrgyzstan	18.6	18.6	18.6	18.6
Latvia	23.8	24.1	24.1	24.4
Lithuania	25.1	25.1	25.1	25.1
Malaysia	26.4	26.4	26.4	26.4

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>HARD COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>
Mauritius	25.8	26.0	26.0	26.0
Mexico	29.3	29.3	29.3	29.0
Mongolia	28.3	28.3	28.3	28.3
Morocco	27.6	27.6	27.6	27.6
Mozambique	27.0	26.9	26.8	26.7
Myanmar	23.3	23.3	23.3	23.3
Namibia	22.7	22.7	22.7	22.7
Nepal	25.1	25.1	25.1	25.1
Netherlands	25.3	26.2	26.4	26.5
New Caledonia	26.0	26.0	26.0	26.0
New Zealand	30.2	29.7	28.7	28.8
Niger	16.0	16.0	16.0	16.0
North Macedonia	26.1	26.2	27.0	27.0
Pakistan	18.8	18.8	18.8	18.8
Peru	27.3	27.1	26.9	27.5
Poland	24.0	23.9	23.9	23.7
Portugal	24.7	24.9	24.8	24.8
Republic of Moldova	24.8	25.2	24.9	24.9
Romania	25.7	25.6	25.6	25.6
Russian Federation	26.1	26.1	26.1	26.1
Serbia	25.7	25.6	27.5	27.7
Slovakia	29.0	29.0	28.9	28.2
Slovenia	27.3	27.4	27.3	27.3
South Africa	23.7	23.7	23.7	23.7
Spain	19.6	19.5	19.6	24.3
Sri Lanka	29.3	29.3	29.3	29.3
Sweden	29.1	29.0	28.7	29.1
Tajikistan	25.0	25.1	25.0	25.0
Thailand	26.4	26.4	26.4	26.4
Turkey	24.2	24.6	24.9	24.7
Ukraine	24.1	23.4	23.2	23.5
United Kingdom	25.1	25.1	25.1	26.8
United States	27.0	27.1	27.2	27.2
Uruguay	25.8	25.8	25.8	25.8
Uzbekistan	18.6	18.6	18.6	18.6
Venezuela (Bolivarian Republic of)	30.6	30.6	30.6	30.6
Viet Nam	23.4	23.4	23.4	23.4
Zambia	24.7	24.7	24.7	24.7
Zimbabwe	27.0	27.0	27.0	27.0

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>BROWN COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>14.0</b>	<b>14.0</b>	<b>14.0</b>	<b>14.0</b>
Armenia	7.8	7.8	11.9	11.9
Australia	12.4	12.6	13.1	13.1
Austria	20.5	20.3	21.1	22.1
Belgium	22.0	21.8	22.6	22.6
Bosnia and Herzegovina	10.8	10.7	10.6	10.7
Bulgaria	6.8	6.9	7.0	7.0
Cambodia	19.9	19.9	19.9	19.9
Canada	16.7	16.7	16.5	16.2
Croatia	16.9	17.1	17.1	17.1
Czechia	12.5	12.5	12.6	12.5
Georgia	17.0	17.0	17.0	17.0
Germany	9.0	9.0	9.0	9.1
Greece	5.1	5.1	4.9	4.7
Hungary	6.6	6.7	6.7	6.1
India	9.5	9.5	9.5	9.5
Indonesia	21.1	21.2	21.2	21.2
Kazakhstan	18.6	19.5	19.5	19.4
Korea, Democratic People's Republic of	17.6	17.6	17.6	17.6
Korea, Republic of	21.4	21.4	21.4	19.9
Kosovo	7.8	7.8	7.8	7.8
Kyrgyzstan	14.7	14.7	14.7	14.7
Lao People's Democratic Republic	10.9	10.8	9.6	9.6
Lithuania	22.7	22.7	22.7	22.7
Mexico	19.8	19.6	19.6	19.8
Mongolia	14.4	14.4	14.4	14.4
Montenegro	9.2	9.2	9.6	10.3
Myanmar	16.3	16.3	16.3	16.3
Netherlands	20.0	20.0	20.0	20.0
New Zealand	19.2	19.5	19.7	22.2
North Macedonia	6.1	7.0	6.7	6.6
Philippines	22.1	22.1	22.1	22.1
Poland	8.1	8.3	8.3	7.9
Romania	7.7	7.3	7.1	7.6
Russian Federation	14.9	14.9	14.9	14.9
Serbia	7.8	7.6	7.4	7.4
Slovakia	13.8	10.2	10.2	10.2
Slovenia	10.2	11.6	11.7	11.7
Spain	13.5	13.5	13.4	13.4
Tajikistan	17.0	17.0	17.0	17.0
Thailand	10.6	10.6	10.6	10.5
Turkey	8.6	8.6	8.0	8.1
United States	18.1	18.2	18.3	18.3
Uzbekistan	14.7	14.7	14.7	14.7

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>COKE OVEN COKE</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>28.2</b>	<b>28.2</b>	<b>28.2</b>	<b>28.2</b>
Argentina	28.5	28.5	28.5	28.5
Australia	27.0	27.0	27.0	27.0
Austria	28.9	28.6	27.9	28.7
Belgium	29.3	29.3	29.3	29.3
Bosnia and Herzegovina	28.5	28.5	28.5	28.5
Brazil	28.9	28.9	28.9	28.9
Bulgaria	28.5	28.5	28.5	28.5
Belarus	29.0	29.0	29.0	29.0
Canada	27.5	27.5	27.5	27.5
Chile	28.6	28.6	30.1	30.1
China	28.5	28.5	28.4	28.4
Colombia	20.1	20.1	20.1	20.1
Croatia	29.3	29.3	29.3	29.3
Czechia	28.7	28.9	28.5	28.6
Denmark	29.3	29.3	29.3	29.3
Estonia	28.5	28.5	28.5	28.5
Finland	29.3	29.3	29.3	29.3
Georgia	29.3	29.3	29.3	29.3
Germany	28.7	28.7	28.7	28.7
Hungary	29.9	29.6	29.4	29.5
Iceland	26.7	26.7	27.8	27.8
Japan	29.2	29.2	29.2	29.2
Kazakhstan	26.8	26.9	26.9	27.5
Korea, Republic of	28.9	28.9	28.9	28.9
Luxembourg	28.5	28.5	28.5	28.5
Mexico	28.4	28.4	28.4	28.7
Netherlands	28.5	28.5	28.5	28.5
New Zealand	29.5	29.5	29.5	29.5
Peru	28.2	28.2	28.2	28.2
Poland	28.0	28.0	28.0	28.0
Portugal	30.4	30.8	30.8	30.8
Romania	26.4	26.4	26.4	26.4
Russian Federation	29.0	29.0	29.0	29.0
Serbia	29.0	29.0	29.0	29.0
Slovakia	28.3	28.4	28.4	28.3
Slovenia	30.0	30.1	30.1	30.1
South Africa	26.5	26.5	26.5	26.5
Spain	26.8	27.3	27.3	27.3
Sweden	28.1	28.1	28.1	28.1
Turkey	27.0	27.0	27.0	27.0
Ukraine	25.1	25.1	25.1	25.1
United Kingdom	29.8	29.8	29.8	29.8
United States	28.9	28.9	28.9	28.9
Zimbabwe	25.1	25.1	25.1	25.1

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>PATENT FUEL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>
Austria	31.0	31.0	31.0	31.0
Belgium	30.5	30.5	30.5	30.5
Germany	31.4	31.4	31.4	31.4
Korea, Republic of	18.6	19.4	19.4	19.4
Luxembourg	28.2	28.2	28.2	28.2
Poland	23.2	23.2	23.2	23.2
Slovakia	28.0	28.0	28.0	28.0
United Arab Emirates	29.0	29.0	29.0	29.0
United Kingdom	28.3	28.3	28.3	28.3
Uzbekistan	29.0	29.0	29.0	29.0
<b>BROWN COAL BRIQUETTES</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>
Australia	21.0	22.0	21.0	22.0
Austria	19.8	19.8	19.8	19.8
Belgium	20.7	20.7	20.7	20.7
Bulgaria	13.4	11.6	12.6	12.9
Czechia	19.8	23.4	23.3	22.9
Germany	21.2	21.4	21.1	21.1
Hungary	19.1	19.0	19.6	19.3
India	20.0	20.0	20.0	20.0
Ireland	19.8	19.8	19.8	19.8
Luxembourg	22.2	22.2	22.2	22.2
Mexico	18.0	18.0	18.0	18.0
Netherlands	20.0	20.0	20.0	20.0
Poland	17.5	17.5	17.5	17.5
Serbia	17.7	17.7	17.6	17.8
Slovakia	17.9	17.2	17.6	17.6
<b>PEAT</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>9.8</b>	<b>9.8</b>	<b>9.8</b>	<b>9.8</b>
Belarus	10.0	9.4	9.7	9.9
Burundi	14.7	14.7	14.7	14.7
Estonia	10.7	10.1	10.1	10.1
Falkland Islands	9.5	9.5	9.5	9.5
Finland	10.0	9.9	9.9	10.4
Ireland	8.9	8.7	8.7	9.6
Latvia	10.1	10.1	10.1	10.1
Lithuania	11.7	11.7	11.7	11.7
Romania	8.8	8.8	8.8	8.8
Russian Federation	10.0	10.0	10.0	10.0
Sweden	12.5	12.5	12.5	12.5
Ukraine	9.7	9.7	9.7	9.7

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>OIL SHALE</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>8.9</b>	<b>8.9</b>	<b>8.9</b>	<b>8.9</b>
Estonia	8.3	8.0	9.2	9.2
Israel	4.0	4.0	4.0	4.0
<b>CRUDE OIL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>42.3</b>	<b>42.3</b>	<b>42.3</b>	<b>42.3</b>
Azerbaijan	43.1	43.1	43.1	43.1
Australia	44.0	44.0	44.0	44.0
Austria	42.5	42.5	42.5	42.5
Belgium	42.2	42.2	42.1	42.1
Brazil	42.2	42.3	42.3	42.3
Canada	42.8	42.8	42.8	42.8
Chile	43.2	43.2	43.2	43.2
China	41.9	41.9	41.9	41.9
Czechia	42.4	42.4	42.8	42.8
Denmark	43.0	43.0	43.0	43.0
Finland	42.7	42.7	42.7	42.7
France	42.8	42.8	42.8	42.8
Georgia	42.5	42.5	42.5	42.5
Germany	42.5	42.5	42.5	42.5
Greece	38.2	38.2	38.2	40.8
China, Hong Kong SAR	42.5	42.5	42.5	42.5
Hungary	41.8	41.8	41.8	41.8
Ireland	42.8	42.8	42.8	42.8
Israel	42.5	42.5	42.5	42.5
Italy	41.9	41.9	41.9	41.9
Japan	42.1	42.0	42.0	42.0
Korea, Republic of	42.7	42.2	42.2	42.2
Lithuania	42.3	42.3	42.3	42.3
Mexico	43.5	43.5	43.5	43.5
Morocco	42.4	42.4	42.4	42.4
Netherlands	42.7	42.7	42.7	42.7
New Zealand	43.6	43.6	43.6	43.6
Norway	42.2	43.4	43.4	43.4
Peru	43.0	43.0	42.3	42.3
Poland	42.5	42.1	42.5	42.5
Portugal	43.0	43.0	43.0	43.0
Slovakia	43.2	43.3	43.3	43.3
Spain	42.3	42.3	42.3	42.3
Sweden	42.2	42.2	42.2	42.2
Switzerland	43.2	43.2	43.2	43.2
Turkey	44.3	44.3	44.3	44.2
United Kingdom	43.4	43.4	43.4	43.4
United States	42.7	42.7	42.6	42.6



Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>NATURAL GAS LIQUIDS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>44.2</b>	<b>44.2</b>	<b>44.2</b>	<b>44.2</b>
Australia	45.4	45.4	45.4	45.4
Austria	42.5	42.5	42.5	42.5
Armenia	34.7	34.7	34.7	34.7
Belgium	45.2	45.2	45.2	45.2
Canada	45.2	45.2	45.2	45.2
Chile	48.1	48.1	48.1	48.1
Equatorial Guinea	47.3	47.3	47.3	47.3
Finland	44.0	44.0	44.0	44.0
France	42.0	42.0	42.0	42.0
Hungary	43.0	43.0	43.0	43.0
Japan	45.6	45.3	45.3	45.3
Mexico	41.3	41.4	41.4	41.4
Netherlands	44.0	44.0	44.0	44.0
New Zealand	45.8	45.8	45.8	45.8
Norway	43.8	43.8	43.8	43.8
Peru	42.1	42.1	42.1	42.1
Republic of Moldova	42.0	42.0	42.0	42.0
Slovakia	42.4	42.0	42.0	42.0
United Kingdom	45.3	45.3	45.3	45.3
United States	46.4	46.2	44.8	44.8
<b>REFINERY FEEDSTOCKS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>
Australia	43.3	43.3	43.3	43.3
Austria	42.1	42.3	42.3	42.0
Belgium	42.2	42.2	42.1	42.0
Canada	42.5	42.5	42.5	42.5
Chile	44.8	44.8	44.8	44.8
Czechia	40.2	40.2	40.2	40.2
Denmark	42.7	42.7	42.7	42.7
Finland	42.5	42.5	42.5	42.5
France	41.9	41.9	41.9	41.9
Germany	42.5	42.5	42.5	42.5
Greece	41.3	41.3	41.3	41.3
Hungary	41.8	41.8	41.8	41.8
Ireland	44.6	44.6	44.6	44.6
Israel	44.8	44.8	44.8	44.8
Italy	42.5	42.5	42.5	42.5
Japan	42.5	42.5	42.5	42.5
Korea, Republic of	44.8	47.2	47.2	47.2
Lithuania	41.4	41.5	42.3	42.3
Mexico	42.4	42.4	42.4	42.4
Morocco	41.9	41.9	41.9	41.9

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

**PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>REFINERY FEEDSTOCKS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>
Netherlands	44.0	41.9	41.8	41.8
New Zealand	43.9	43.9	43.9	43.9
Norway	42.3	42.3	42.3	42.3
Poland	43.0	43.0	43.0	42.9
Portugal	42.6	42.6	42.6	42.6
Republic of Moldova	41.6	41.6	41.6	41.6
Slovakia	42.0	43.9	43.9	43.9
Spain	42.5	42.5	42.5	42.5
Sweden	44.2	44.2	44.2	44.2
Switzerland	43.7	43.7	43.7	43.7
Turkey	43.5	41.5	41.5	41.5
United Kingdom	42.0	42.0	42.0	42.0
United States	43.5	43.5	43.5	43.5
<b>OTHER HYDROCARBONS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>36.0</b>	<b>36.0</b>	<b>36.0</b>	<b>36.0</b>
Brazil	120.0	120.0	120.0	120.0
Canada	41.9	41.9	41.9	41.9
Estonia	39.4	39.4	39.4	39.4
Finland	49.1	49.1	49.5	49.5
Hungary	40.0	40.0	40.0	40.0
Ireland	47.2	47.2	47.5	47.5
Israel	41.9	41.9	41.9	41.9
Latvia	39.4	39.4	39.4	39.4
Mexico	41.9	41.9	41.9	41.9
Poland	42.5	42.5	42.5	42.5
Portugal	120.0	120.0	120.0	120.0
Serbia	120.0	120.0	120.0	120.0
Turkey	41.9	41.9	41.9	41.9
United Kingdom	28.2	28.2	28.2	28.2
United States	51.0	51.0	51.0	51.0
<b>ADDITIVES/BLENDING COMPONENTS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>
Canada	25.1	25.1	25.1	25.1
Chile	22.7	22.7	22.7	22.7
Czechia	39.5	39.5	39.5	39.5
Equatorial Guinea	20.9	20.9	20.9	20.9
Finland	42.5	42.5	42.5	42.5
France	25.1	25.1	25.1	25.1
Germany	37.5	37.1	37.1	37.1
Greece	41.3	41.3	41.3	41.3

**Table I** (continued)**NET CALORIFIC VALUES OF ENERGY PRODUCTS  
GJ/ton****PRODUCTION, EXPORTS AND CHANGES IN STOCKS**

<b>ADDITIVES/BLENDING COMPONENTS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>
Italy	37.0	37.0	37.0	37.0
Korea, Republic of	41.9	44.1	44.1	44.1
Lithuania	41.9	41.9	41.9	41.9
Mexico	38.7	34.1	34.1	34.1
Netherlands	38.7	37.4	38.8	38.8
Norway	36.8	36.8	36.8	36.8
Poland	40.2	40.2	40.2	40.2
Portugal	37.0	37.0	37.0	37.0
Slovakia	42.0	42.0	42.0	42.0
Sweden	25.1	39.9	39.9	39.9
Switzerland	41.3	41.3	41.3	41.3
Turkey	25.1	25.1	25.1	25.1
United Kingdom	32.1	32.1	33.3	33.3
United States	37.9	37.9	37.9	37.9

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
<b>HARD COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>
Albania	25.2	25.2	25.2	25.2
Argentina	28.4	28.8	28.8	30.0
Armenia	26.7	26.7	26.7	26.8
Australia	27.6	28.1	27.9	27.0
Austria	28.1	28.4	28.4	28.0
Azerbaijan	27.7	27.7	27.7	27.7
Bangladesh	20.9	20.9	20.9	20.9
Belarus	25.2	24.5	23.7	24.7
Belgium	27.8	29.4	29.4	29.5
Bosnia and Herzegovina	29.1	29.1	29.1	29.1
Brazil	27.7	27.7	27.5	27.6
Bulgaria	28.0	25.2	27.4	26.9
Canada	28.0	27.9	28.0	28.0
Chile	23.9	24.1	23.9	24.0
China	18.5	18.3	17.8	18.1
China, Hong Kong SAR	26.4	26.4	26.4	26.4
Colombia	27.2	27.2	27.2	28.8
Croatia	25.1	25.1	25.1	24.6
Czechia	26.1	26.5	26.2	27.2
Denmark	24.3	24.3	26.6	23.9
Egypt	25.7	25.7	25.8	25.8
Estonia	27.2	22.0	22.0	24.9
Finland	26.7	26.6	26.8	27.0
Georgia	27.6	27.6	27.6	27.6
Germany	27.5	26.6	26.7	27.4
Greece	25.5	23.3	25.9	26.1
Guatemala	28.9	28.9	28.9	28.9
Hungary	31.1	29.4	30.0	29.7
Iceland	28.1	28.1	27.8	27.8
India	26.5	26.6	26.8	26.7
Indonesia	28.2	28.2	28.2	24.5
Iran (Islamic Republic of)	28.1	26.1	25.8	25.8
Ireland	25.1	25.8	25.8	26.9
Israel	24.9	24.9	24.9	24.8
Japan	25.5	25.9	25.9	25.9
Jordan	26.7	26.7	26.7	26.7
Kazakhstan	18.6	18.6	22.1	26.2
Korea, Democratic People's Republic of	25.8	25.8	26.5	25.8
Korea, Republic of	25.5	24.8	24.8	24.8
Kosovo	22.5	22.5	27.0	23.3
Kyrgyzstan	20.8	20.5	20.9	20.9
Latvia	23.8	24.1	24.1	24.4

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
<b>HARD COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>
Lebanon	27.7	27.7	27.7	27.7
Lithuania	25.1	25.1	25.1	25.1
Luxembourg	24.7	24.6	24.6	24.6
Malaysia	26.4	26.4	26.4	26.4
Mauritius	25.8	26.0	26.0	26.0
Mexico	26.1	26.0	26.0	26.0
Mongolia	28.6	28.6	28.6	28.6
Morocco	27.6	27.6	27.6	27.6
Myanmar	23.3	23.3	23.3	23.3
Namibia	22.7	22.7	22.7	22.7
Nepal	25.1	25.1	25.1	25.1
Netherlands	25.3	26.2	26.4	26.5
New Caledonia	26.0	26.0	26.0	26.0
New Zealand	26.0	26.6	27.0	28.8
North Macedonia	26.1	26.2	27.0	27.0
Pakistan	27.6	27.6	27.6	27.6
Paraguay	28.1	28.1	28.1	28.1
Peru	30.5	30.5	30.5	30.5
Poland	24.6	24.9	24.2	24.8
Portugal	24.7	24.9	24.8	24.8
Republic of Moldova	24.8	25.2	24.9	24.9
Romania	25.7	25.6	25.6	25.6
Russian Federation	25.3	25.6	25.7	25.7
Senegal	25.9	25.9	25.9	25.9
Serbia	25.7	25.6	27.5	27.7
Slovakia	29.0	29.0	28.9	28.2
Slovenia	27.3	27.4	27.3	27.3
South Africa	31.0	31.0	31.0	31.0
Spain	24.1	24.1	24.0	24.3
Sri Lanka	29.3	29.3	29.3	29.3
Sweden	29.1	29.0	28.7	29.1
Switzerland	25.5	25.5	25.5	25.5
Tajikistan	25.0	25.0	25.0	25.0
Thailand	26.4	26.4	26.4	26.4
Turkey	26.8	26.7	26.2	26.2
Ukraine	25.8	25.5	26.0	25.2
United Arab Emirates	27.7	27.7	27.8	27.8
United Kingdom	26.9	26.9	26.5	26.9
United States	24.9	25.1	25.3	24.9
Uruguay	25.8	25.8	25.8	25.8
Uzbekistan	18.6	18.6	18.6	18.6
Viet Nam	23.4	23.4	23.4	23.4
Zimbabwe	27.0	27.0	27.0	27.0

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
<b>BROWN COAL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>14.0</b>	<b>14.0</b>	<b>14.0</b>	<b>14.0</b>
Austria	20.5	20.3	21.1	22.1
Armenia	7.8	7.8	11.9	11.9
Belgium	22.6	22.6	22.6	22.6
Bosnia and Herzegovina	10.8	10.7	10.6	10.7
Cambodia	19.9	19.9	19.9	19.9
Canada	17.9	17.9	17.9	17.9
Croatia	16.9	17.1	17.1	17.1
Czechia	13.9	14.0	14.2	14.3
France	17.0	17.0	17.0	17.0
Georgia	17.0	17.0	17.0	17.0
Germany	18.4	18.4	18.4	17.9
Greece	5.1	5.1	4.9	4.7
Hungary	18.2	17.9	17.9	17.9
India	18.0	18.0	18.0	18.0
Italy	18.7	17.0	10.5	10.5
Kazakhstan	18.6	19.5	19.5	19.4
Korea, Democratic People's Republic of	17.6	17.6	17.6	17.6
Korea, Republic of	21.4	21.4	21.4	19.9
Kosovo	7.8	7.8	7.8	7.8
Kyrgyzstan	14.7	14.7	14.7	14.7
Lao People's Democratic Republic	10.9	10.8	9.6	9.6
Lithuania	22.7	22.7	22.7	22.7
Mexico	19.0	19.0	19.0	18.6
Montenegro	9.2	9.2	9.6	10.3
Netherlands	20.0	20.0	20.0	20.0
New Zealand	20.3	20.2	20.2	23.2
Philippines	21.6	22.0	21.9	22.0
Poland	8.1	8.3	8.3	7.9
Romania	20.8	24.5	22.8	22.8
Russian Federation	14.9	14.9	14.9	14.9
Serbia	8.1	8.1	8.1	8.1
Slovakia	13.8	14.3	14.3	14.3
Slovenia	13.8	19.0	19.0	19.0
Switzerland	23.6	23.6	23.6	23.6
North Macedonia	20.8	22.1	19.4	19.9
United States	19.7	19.6	19.8	19.9
Uzbekistan	14.7	14.7	14.7	14.7

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

	<b>IMPORTS</b>				
<b>COKE OVEN COKE</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
<b>Standard factor</b>	<b>28.2</b>	<b>28.2</b>	<b>28.2</b>	<b>28.2</b>	<b>28.2</b>
Argentina	28.5	28.5	28.5	28.5	28.5
Australia	27.0	27.0	27.0	27.0	27.0
Austria	28.9	28.6	27.9	28.7	28.7
Belgium	29.3	29.3	29.3	29.3	29.3
Bosnia and Herzegovina	28.5	28.5	28.5	28.5	28.5
Brazil	28.9	28.9	28.9	28.9	28.9
Bulgaria	28.5	28.5	28.5	28.5	28.5
Belarus	29.0	29.0	29.0	29.0	29.0
Canada	27.5	27.5	27.5	27.5	27.5
China	28.5	28.5	28.4	28.4	28.4
Colombia	20.1	20.1	20.1	20.1	20.1
Croatia	29.3	29.3	29.3	29.3	29.3
Czechia	28.1	28.0	26.8	28.1	28.1
Denmark	29.3	29.3	29.3	29.3	29.3
Egypt	27.2	27.2	27.2	27.2	27.2
Finland	29.3	29.3	29.3	29.3	29.3
France	28.0	28.0	28.0	28.0	28.0
Georgia	29.3	29.3	29.3	29.3	29.3
Germany	28.7	28.7	28.7	28.7	28.7
Hungary	29.9	29.6	29.3	29.5	29.5
Iceland	26.7	26.7	27.8	27.8	27.8
Italy	28.4	28.4	28.8	28.4	28.4
Japan	29.2	29.2	29.2	29.2	29.2
Kazakhstan	26.8	26.9	26.9	27.5	27.5
Korea, Republic of	28.9	28.9	28.9	28.9	28.9
Lithuania	29.3	29.3	29.3	29.3	29.3
Luxembourg	28.5	28.5	28.5	28.5	28.5
Mexico	28.4	28.7	28.7	27.8	27.8
Netherlands	28.5	28.5	28.5	28.5	28.5
North Macedonia	27.5	26.9	29.1	28.6	28.6
Norway	28.5	28.5	28.5	28.5	28.5
Peru	28.2	28.2	28.2	28.2	28.2
Poland	28.0	28.0	28.0	28.0	28.0
Portugal	30.4	30.8	30.8	30.8	30.8
Romania	26.4	26.4	26.4	26.4	26.4
Russian Federation	29.0	29.0	29.0	29.0	29.0
Serbia	29.0	29.0	29.0	29.0	29.0
Slovakia	26.5	27.7	27.7	28.0	28.0
Spain	26.8	27.3	27.3	27.3	27.3
Sweden	28.1	28.1	28.1	28.1	28.1
Switzerland	25.5	25.5	25.5	25.5	25.5
Turkey	27.0	27.0	27.0	27.0	27.0
Ukraine	25.1	25.1	25.1	25.1	25.1
North Macedonia	27.5	26.9	29.1	28.6	28.6
United Kingdom	29.8	29.8	29.8	29.8	29.8
United States	28.9	28.9	28.9	28.9	28.9

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
<b>PATENT FUEL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>
Austria	31.0	31.0	31.0	31.0
Belgium	30.5	30.5	30.5	30.5
France	32.0	32.0	32.0	32.0
Germany	31.4	31.4	31.4	31.4
Luxembourg	28.2	28.2	28.2	28.2
Poland	23.2	23.2	23.2	23.2
Slovakia	28.0	28.0	28.0	28.0
United Arab Emirates	29.0	29.0	29.0	29.0
United Kingdom	28.3	28.3	28.3	28.3
<b>BROWN COAL BRIQUETTES</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>	<b>20.7</b>
Australia	21.0	22.0	21.0	22.0
Austria	19.8	19.8	19.8	19.8
Belgium	20.7	20.7	20.7	20.7
Czechia	19.8	20.0	20.2	20.3
France	16.9	16.9	16.9	16.9
Germany	25.5	22.1	25.6	25.6
Hungary	19.1	19.0	19.6	19.3
Ireland	19.8	19.8	19.8	19.8
Luxembourg	22.2	22.2	22.2	22.2
Mexico	18.0	18.0	18.0	18.0
Netherlands	20.0	20.0	20.0	20.0
Poland	17.5	17.5	17.5	17.5
Serbia	15.8	15.8	15.8	15.8
Slovakia	17.9	17.2	17.6	17.6
<b>PEAT</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>9.8</b>	<b>9.8</b>	<b>9.8</b>	<b>9.8</b>
Finland	10.0	9.9	9.9	10.4
Latvia	10.1	10.1	10.1	10.1
Romania	8.8	8.8	8.8	8.8
Russian Federation	10.0	10.0	10.0	10.0
Sweden	12.9	12.9	12.9	12.9
Ukraine	9.7	9.7	9.7	9.7



Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
<b>CRUDE OIL</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>42.3</b>	<b>42.3</b>	<b>42.3</b>	<b>42.3</b>
Azerbaijan	43.1	43.1	43.1	43.1
Australia	42.7	42.7	42.7	42.7
Austria	42.5	42.5	42.5	42.5
Belgium	42.2	42.2	42.1	42.1
Brazil	42.2	42.3	42.3	42.3
Canada	42.8	42.8	42.8	42.8
Chile	43.2	43.2	43.2	43.2
China	41.9	41.9	41.9	41.9
Czechia	42.4	42.4	42.8	42.8
Denmark	43.0	43.0	43.0	43.0
Finland	42.7	42.7	42.7	42.7
France	42.8	42.8	42.8	42.8
Georgia	42.5	42.5	42.5	42.5
Germany	42.5	42.5	42.5	42.5
Greece	41.5	41.5	41.5	41.5
China, Hong Kong SAR	42.5	42.5	42.5	42.5
Hungary	41.8	41.8	41.8	41.8
Ireland	42.8	42.8	42.8	42.8
Israel	42.5	42.7	42.7	42.7
Italy	41.9	41.9	41.9	41.9
Japan	42.1	42.0	42.0	42.0
Korea, Republic of	42.7	42.2	42.2	42.2
Lithuania	42.3	42.3	42.3	42.3
Morocco	43.5	43.5	43.5	43.5
Netherlands	42.4	42.4	42.4	42.4
New Zealand	42.7	42.7	42.7	42.7
Norway	42.8	42.8	42.8	42.8
Peru	42.2	43.4	43.4	43.4
Poland	43.0	43.0	42.3	42.3
Portugal	42.5	42.5	42.5	42.5
Slovakia	43.0	43.0	43.0	43.0
Spain	42.0	42.0	42.0	42.0
Sweden	42.3	42.3	42.3	42.3
Switzerland	42.2	42.2	42.2	42.2
Turkey	43.2	43.2	43.2	43.2
United Kingdom	44.3	44.3	44.3	44.4
United States	43.4	43.4	43.4	43.4

Table I (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>IMPORTS</b>				
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>NATURAL GAS LIQUIDS</b>				
<b>Standard factor</b>	<b>44.2</b>	<b>44.2</b>	<b>44.2</b>	<b>44.2</b>
Azerbaijan	39.1	39.1	39.1	39.1
Armenia	34.7	34.7	34.7	34.7
Belgium	45.2	45.2	45.2	45.2
Canada	45.2	45.2	45.2	45.2
Equatorial Guinea	47.3	47.3	47.3	47.3
Finland	44.0	44.0	44.0	44.0
France	42.0	42.0	42.0	42.0
Japan	45.4	45.6	45.3	45.3
Netherlands	44.0	44.0	44.0	44.0
Peru	42.1	42.1	42.1	42.1
Republic of Moldova	42.0	42.0	42.0	42.0
United Kingdom	45.3	45.3	45.3	45.3
United States	48.1	47.7	47.5	46.1
<b>REFINERY FEEDSTOCKS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>	<b>43.0</b>
Australia	43.3	43.3	43.3	43.3
Austria	42.1	42.3	42.3	42.3
Belgium	42.2	42.2	42.1	42.0
Czechia	40.2	40.2	40.2	40.2
France	41.9	41.9	41.9	41.9
Greece	41.3	41.3	41.3	41.3
Hungary	41.8	41.8	41.8	41.8
Israel	44.8	44.8	44.8	44.8
Italy	42.5	42.5	42.5	42.5
Korea, Republic of	44.8	47.2	47.2	47.2
Lithuania	41.4	41.5	42.3	42.3
Morocco	41.9	41.9	41.9	41.9
New Zealand	43.9	43.9	43.9	43.9
Poland	43.0	43.0	43.0	42.9
Portugal	42.6	42.6	42.6	42.6
Republic of Moldova	41.6	41.6	41.6	41.6
Spain	42.5	42.5	42.5	42.5
Sweden	44.2	44.2	44.2	44.2
Switzerland	43.7	43.7	43.7	43.7
United Kingdom	42.0	42.0	42.0	42.0
United States	43.5	43.5	43.5	43.5

**Table I** (continued)

**NET CALORIFIC VALUES OF ENERGY PRODUCTS  
GJ/ton**

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<b>IMPORTS</b>				
<b>OTHER HYDROCARBONS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>36.0</b>	<b>36.0</b>	<b>36.0</b>	<b>36.0</b>
Belgium	120.0	120.0	120.0	120.0
Canada	41.9	41.9	41.9	41.9
Estonia	39.4	39.4	39.4	39.4
Latvia	39.4	39.4	39.4	39.4
Serbia	120.0	120.0	120.0	120.0
Sweden	41.9	41.9	41.9	41.9
United Kingdom	28.2	28.2	28.2	28.2
United States	51.0	51.0	51.0	51.0
<b>ADDITIVES/BLENDING COMPONENTS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Standard factor</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>
Canada	25.1	25.1	25.1	25.1
Chile	22.7	22.7	22.7	22.7
Czechia	39.5	39.5	39.5	39.5
Finland	42.5	42.5	42.5	42.5
France	25.1	25.1	25.1	25.1
Greece	41.3	41.3	41.3	41.3
Italy	37.0	37.0	37.0	37.0
Korea, Republic of	41.9	44.1	44.1	44.1
Lithuania	41.9	41.9	41.9	41.9
Mexico	38.7	34.1	34.1	34.1
Netherlands	38.7	37.4	38.8	38.8
Poland	40.2	40.2	40.2	40.2
Portugal	37.0	37.0	37.0	37.0
Slovakia	42.0	42.0	42.0	42.0
Switzerland	41.3	41.3	41.3	41.3
Turkey	25.1	25.1	25.1	25.1
United Kingdom	32.1	32.1	33.3	33.3
United States	37.9	37.9	37.9	37.9

**Table II**  
**SELECTED CONVERSION FACTORS FOR CRUDE OIL**  
**AND OIL PRODUCTS**

(To convert from metric tons into the following units, multiply by the factor in the appropriate column)

<b>Commodity</b>	<b>Litre</b>	<b>U.S. Gallon</b>	<b>Imperial Gallon</b>	<b>Barrel</b>	<b>Barrels / day</b>	<b>Cubic Metre</b>
Conventional crude oil (average specific gravity)	1164	308	256	7.32	0.02005	1.164
Natural gas liquids (NGL)	1653	437	364	10.40	0.02849	1.653
Additives and oxygenates	1033	315	262	7.50	0.02055	1.033
Other hydrocarbons	1177	311	259	7.40	0.02027	1.177
Aviation gasoline	1370	362	301	8.62	0.02362	1.370
Motor gasoline	1351	357	297	8.50	0.02329	1.351
Gasoline-type jet fuel	1317	348	290	8.28	0.02270	1.317
Kerosene-type jet fuel	1235	326	272	7.77	0.02129	1.235
Other kerosene	1235	326	272	7.77	0.02129	1.235
Gas oil/diesel oil	1149	304	253	7.23	0.01981	1.149
Fuel oil	1053	278	232	6.62	0.01814	1.053
Liquefied petroleum gases (LPG)	1852	489	407	11.65	0.03192	1.852
Ethane	2679	708	589	16.85	0.04616	2.679
Refinery gas	1272	336	280	8.00	0.02192	1.272
Feedstocks	1177	311	259	7.40	0.02027	1.177
Naphtha	1389	367	306	8.74	0.02395	1.389
White spirit and SBP industrial spirits	1235	326	272	7.77	0.02129	1.235
Lubricants	1111	294	244	6.99	0.01915	1.111
Bitumen	962	254	212	6.05	0.01658	0.962
Paraffin waxes	1250	330	275	7.86	0.02153	1.250
Petroleum coke	877	232	193	5.52	0.01512	0.877
Other oil products	1099	290	241	6.91	0.01893	1.099



# **TABLES**

**Table 1****Total energy supply**

Petajoules

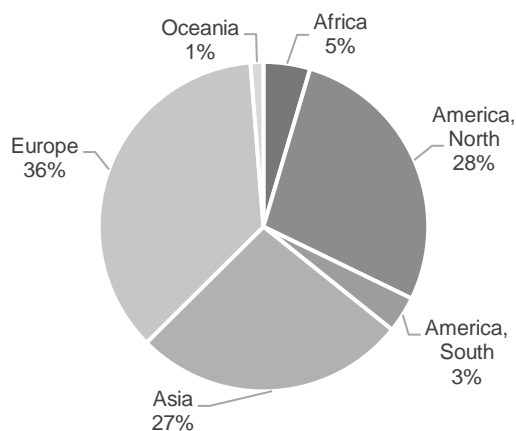
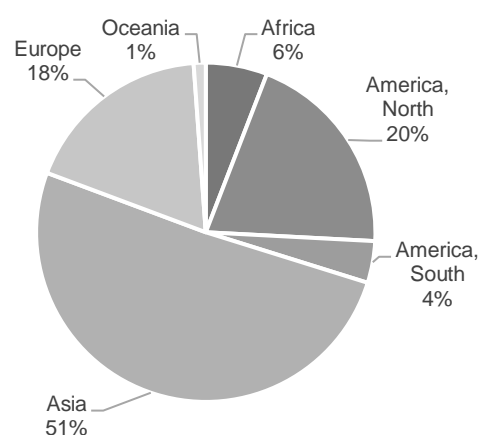
**Table Notes****For tables 1 to 3**

Data on individual energy commodities are aggregated and presented in these tables. As discussed in the introduction, these tables follow the principles of energy balances as recommended in IRES.

Although both Table 1 and Table 2 display figures for total energy supply, there may be rounding differences for certain countries or regions in the same year. This is due to the different ways they are added up.

Instead of breaking energy supply down by flow, Table 1 gives a longer historical perspective back to 1990. As such, historical countries that existed in 1990 are included here. Due to the break-up of the Former Union of Soviet Socialist Republics, there is a reallocation between Europe and Asia between 1991 and 1992.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 1: Total energy supply by region, 1990****Figure 2: Total energy supply by region, 2019**

**Figure 3: Total energy supply by region, 1990-2019**

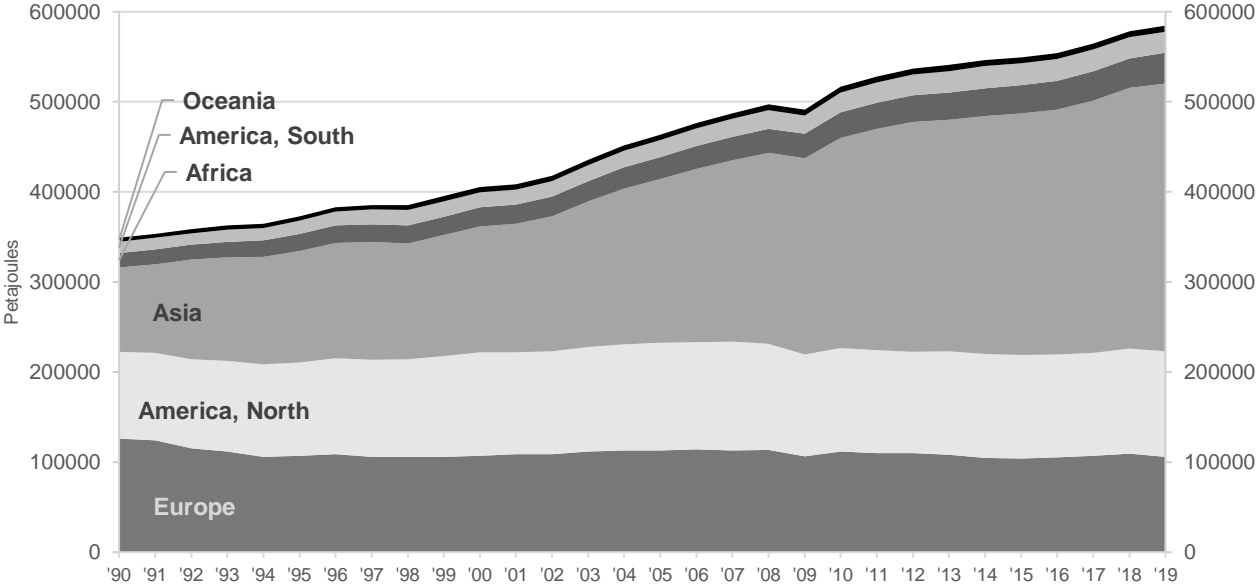




Table 1

## Total Energy Supply

Petajoules

Country or area	1990	1995	2000	2005	2010	2015	2019
<b>World</b>	<b>349,017</b>	<b>372,677</b>	<b>405,196</b>	<b>463,436</b>	<b>516,988</b>	<b>549,527</b>	<b>584,594</b>
<b>Africa</b>	<b>16,005</b>	<b>18,925</b>	<b>21,062</b>	<b>24,515</b>	<b>28,164</b>	<b>31,180</b>	<b>34,302</b>
Algeria	1,075	1,270	1,103	1,583	1,641	2,224	2,509
Angola	238	340	288	319	469	555	553
Benin	73	87	83	104	149	180	220
Botswana	39	44	57	65	74	80	98
Burkina Faso	*63	*68	83	114	145	172	199
Burundi	*52	*53	55	*56	*58	62	66
Cabo Verde	*3	*4	*6	8	9	*9	*10
Cameroon	203	237	266	297	293	384	408
Central African Rep.	31	31	*29	*32	36	36	*38
Chad	48	54	62	71	82	87	95
Comoros	*3	*3	*4	5	*6	*6	*8
Congo	36	40	34	45	70	117	135
Côte d'Ivoire	204	245	278	418	347	412	444
Dem. Rep. of the Congo	489	595	635	698	831	1,209	1,266
Djibouti	*6	*7	8	*9	11	10	*10
Egypt	1,271	1,605	2,288	2,742	3,242	3,450	4,081
Equatorial Guinea	5	5	11	65	77	108	75
Eritrea	..	42	30	32	31	34	37
Eswatini	*28	*29	35	36	41	46	46
Ethiopia	..	918	1,022	1,132	1,293	1,462	1,615
Ethiopia, incl. Eritrea	543	..	..	..	..	..	..
Gabon	49	56	61	72	93	111	104
Gambia	7	8	9	10	12	15	*15
Ghana	187	*249	265	241	287	387	444
Guinea	105	126	128	135	147	152	183
Guinea-Bissau	20	21	23	26	28	30	32
Kenya	439	518	*627	*686	*793	953	*1,008
Lesotho	*36	*41	*48	47	52	*46	*45
Liberia	38	31	49	62	75	92	101
Libya	468	653	695	815	869	763	908
Madagascar	99	126	*153	*168	*200	250	374
Malawi	64	65	65	70	76	81	90
Mali	*61	*71	*86	120	*153	*195	*210
Mauritania	*23	*26	29	36	46	*61	76
Mauritius	33	41	49	57	63	67	69
Mayotte	*1	*2	*2	*3	4	..	..
Morocco	345	423	478	606	762	799	943
Mozambique	248	264	293	365	309	447	464
Namibia	..	38	39	54	63	78	84
Niger	60	70	81	*77	70	95	*105
Nigeria	2,780	3,052	3,642	4,401	5,325	6,020	6,586
Reunion	24	31	42	49	58	..	..
Rwanda	35	54	54	71	84	*98	*111
Sao Tome and Principe	*1	1	*2	*2	2	*3	*3
Senegal	*81	*87	97	114	160	178	209
Seychelles	2	*3	4	5	6	7	8
Sierra Leone	51	46	54	56	59	69	73
Somalia	68	77	90	107	126	138	156
South Africa	4,179	4,750	4,921	5,197	5,897	5,724	5,991
South Sudan	..	..	..	..	..	35	30
Sudan	..	..	..	..	..	503	*535
Sudan (former)	451	506	556	654	711	..	..
Togo	55	71	89	99	130	131	138
Tunisia	192	220	293	349	427	457	477
Uganda	351	390	396	516	645	804	966
United Rep. of Tanzania	409	463	564	699	793	883	933

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	1995	2000	2005	2010	2015	2019
Zambia	222	244	263	301	340	408	455
Zimbabwe	405	421	438	414	397	458	464
<b>America, North</b>	<b>96,322</b>	<b>104,100</b>	<b>114,840</b>	<b>119,325</b>	<b>114,857</b>	<b>114,724</b>	<b>116,720</b>
Anguilla	*1	*1	*1	*2	*2	*2	*2
Antigua and Barbuda	*3	*3	*4	*5	*6	*7	*7
Aruba	*7	*10	*54	58	*56	*13	*13
Bahamas	*28	*26	*28	*28	28	31	37
Barbados	16	12	16	17	20	17	16
Belize	8	10	11	11	13	16	17
Bermuda	*7	*8	*8	*9	*9	8	9
Bonaire, St Eustatius, Saba	..	..	..	..	..	*1	*2
British Virgin Islands	*1	*2	*2	*3	*3	*3	*2
Canada	8,838	9,783	10,609	11,441	10,902	11,699	12,779
Cayman Islands	4	*5	*7	7	8	8	10
Costa Rica	68	110	137	177	203	207	214
Cuba	604	414	459	388	505	459	367
Curaçao	..	..	..	..	..	101	32
Dominica	*1	1	2	*2	3	*3	*3
Dominican Republic	140	223	275	259	298	326	395
El Salvador	91	133	146	160	175	172	188
Greenland	6	6	7	9	11	9	*8
Grenada	2	2	3	3	4	4	5
Guadeloupe	18	*21	26	33	*32	..	..
Guatemala	195	252	307	361	388	480	571
Haiti	101	107	128	138	159	176	190
Honduras	100	120	127	164	198	233	241
Jamaica	113	130	148	147	113	117	115
Martinique	21	*22	*23	30	29	..	..
Mexico	5,179	5,516	6,314	7,559	7,557	7,830	7,764
Montserrat	0	0	0	1	1	1	0
Neth. Antilles (former)	82	*95	83	84	69	..	..
Nicaragua	87	104	106	118	128	161	168
Panama	60	71	105	122	144	171	210
Puerto Rico	*1	0	13	24	28	56	70
Sint Maarten (Dutch part)	..	..	..	..	..	*12	*11
St. Kitts-Nevis	*2	*2	*3	*3	3	*3	*4
St. Lucia	*4	*5	*6	*7	*8	*8	*8
St. Pierre-Miquelon	1	1	*1	*1	*1	*1	*1
St. Vincent-Grenadines	*1	*2	2	*3	3	4	3
Trinidad and Tobago	251	251	420	676	833	797	718
Turks and Caicos Islands	*1	*1	*2	*3	*4	*5	*5
United States	80,280	86,648	95,257	97,271	92,911	91,585	92,534
<b>America, South</b>	<b>12,463</b>	<b>14,584</b>	<b>16,750</b>	<b>18,861</b>	<b>22,131</b>	<b>24,423</b>	<b>23,278</b>
Argentina	1,928	2,194	2,564	2,919	3,295	3,423	3,293
Bolivia (Plur. State of)	108	156	160	199	268	351	382
Brazil	5,972	7,069	7,998	9,212	10,946	12,393	12,186
Chile	593	780	1,082	1,187	1,286	1,510	1,728
Colombia	983	1,104	1,103	1,180	1,402	2,048	2,043
Ecuador	255	339	328	470	521	603	626
Falkland Is. (Malvinas)	1	*1	0	*1	*1	1	1
French Guiana	9	*9	8	10	*12	..	..
Guyana	28	31	34	32	34	35	41
Paraguay	*96	131	175	198	258	281	304
Peru	421	464	514	565	808	904	1,048
Suriname	29	34	36	26	40	39	43
Uruguay	96	107	119	126	173	213	221
Venezuela (Bolivar. Rep.)	1,944	2,167	2,629	2,737	3,087	2,622	1,362

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	1995	2000	2005	2010	2015	2019
<b>Asia</b>	<b>93,575</b>	<b>123,514</b>	<b>140,251</b>	<b>181,840</b>	<b>233,353</b>	<b>268,609</b>	<b>297,447</b>
Afghanistan	*39	*33	31	46	*141	169	189
Armenia	..	69	85	106	*106	135	141
Azerbaijan	..	536	485	573	486	605	664
Bahrain	213	257	331	348	513	577	669
Bangladesh	769	918	998	1,191	1,493	1,803	2,068
Bhutan	37	39	44	48	57	64	71
Brunei Darussalam	107	71	73	76	136	114	169
Cambodia	121	119	142	144	196	252	338
China	30,398	39,212	42,516	68,833	101,618	120,324	136,602
China, Hong Kong SAR	316	398	570	579	544	576	585
China, Macao SAR	15	18	24	29	32	43	40
Cyprus	58	71	90	94	103	86	95
Georgia	..	88	120	135	140	198	215
India	12,063	14,882	18,356	21,126	27,410	35,123	40,566
Indonesia	4,012	5,220	5,881	7,037	8,073	8,709	11,146
Iran (Islamic Rep. of)	2,819	3,887	5,386	7,216	8,579	10,024	11,460
Iraq	586	1,072	995	1,485	1,424	1,997	2,292
Israel	482	652	767	773	972	915	911
Japan	18,354	20,715	21,681	21,868	21,010	18,126	17,437
Jordan	138	172	205	289	303	368	399
Kazakhstan	..	2,173	1,554	2,356	3,363	3,180	3,003
Korea, Dem.Ppl's.Rep.	1,391	921	826	896	622	332	653
Korea, Republic of	3,868	6,121	7,912	8,822	10,498	11,428	11,738
Kuwait	566	835	824	1,133	1,350	1,405	1,598
Kyrgyzstan	..	101	101	114	115	167	159
Lao People's Dem. Rep.	60	63	58	69	100	169	246
Lebanon	*113	174	207	206	262	337	350
Malaysia	757	1,708	1,959	2,745	2,965	3,424	3,896
Maldives	2	4	6	9	13	19	28
Mongolia	114	88	86	103	164	273	541
Myanmar	466	495	538	616	660	847	965
Nepal	239	299	349	388	446	502	597
Oman	153	236	319	445	825	1,100	1,021
Other Asia	1,965	2,612	3,510	4,231	4,624	4,666	4,558
Pakistan	1,834	2,182	2,437	2,964	3,092	3,314	3,849
Philippines	1,119	1,312	1,603	1,525	1,706	2,143	2,520
Qatar	194	547	576	728	1,165	1,546	1,723
Saudi Arabia	3,178	3,881	4,487	6,047	7,707	10,307	10,129
Singapore	658	645	761	927	1,085	1,166	823
Sri Lanka	187	225	296	324	360	433	457
State of Palestine	*20	*22	38	58	54	72	80
Syrian Arab Republic	476	585	729	741	911	424	390
Tajikistan	..	146	141	148	143	167	208
Thailand	1,766	2,620	3,049	4,048	4,931	5,668	5,795
Timor-Leste	..	..	..	*4	*4	7	10
Turkey	2,211	2,578	3,182	3,529	4,442	5,390	6,118
Turkmenistan	..	574	625	754	951	1,160	1,191
United Arab Emirates	791	1,108	1,719	1,842	2,977	3,571	2,189
Uzbekistan	..	1,780	2,124	2,046	1,821	1,735	1,999
Viet Nam	791	908	1,262	1,756	2,334	3,269	4,401
Yemen	..	142	197	274	326	180	155
Yemen Arab Rep. (former)	*47	..	..	..	..	..	..
Yemen, Dem. (former)	*84	..	..	..	..	..	..
<b>Europe</b>	<b>126,235</b>	<b>106,772</b>	<b>106,787</b>	<b>113,126</b>	<b>111,985</b>	<b>103,986</b>	<b>106,113</b>
Albania	92	47	65	91	91	91	91
Andorra	*7	7	9	10	10	9	9
Austria	1,041	1,123	1,198	1,411	1,425	1,368	1,396

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	1995	2000	2005	2010	2015	2019
Belarus	..	1,038	1,029	1,121	1,152	1,067	1,081
Belgium	1,999	2,231	2,418	2,421	2,499	2,183	2,288
Bosnia and Herzegovina	..	62	179	206	269	250	303
Bulgaria	1,181	966	773	826	741	778	771
Croatia	..	325	349	407	390	350	361
Czechia	..	1,760	1,746	1,898	1,892	1,758	1,789
Czechoslovakia (former)	2,950	..	..	..	..	..	..
Denmark	726	809	780	791	815	682	669
Estonia	..	222	195	220	237	230	220
Faeroe Islands	10	*8	*10	*10	*9	*9	*11
Finland	1,186	1,208	1,353	1,440	1,528	1,351	1,388
France	9,345	9,886	10,500	11,374	10,969	10,527	10,114
German Dem. R. (former)	*3,679	..	..	..	..	..	..
Germany	..	14,083	14,081	14,156	13,791	12,932	12,314
Germany, Fed. R. (former)	11,391	..	..	..	..	..	..
Gibraltar	2	4	5	6	7	9	11
Greece	895	950	1,134	1,268	1,158	967	915
Guernsey	..	..	..	1	1	1	1
Hungary	1,200	1,083	1,046	1,174	1,109	1,053	1,114
Iceland	87	90	139	158	285	320	363
Ireland	417	448	580	618	608	559	574
Isle of Man	..	..	..	1	4	4	5
Italy	6,138	6,668	7,183	7,797	7,277	6,374	6,221
Jersey	..	1	1	3	3	3	3
Kosovo	..	..	65	82	105	106	112
Latvia	..	193	161	190	189	179	188
Liechtenstein	1	2	2	3	3	3	3
Lithuania	..	363	295	364	292	292	318
Luxembourg	143	133	142	185	178	158	167
Malta	29	30	29	37	35	27	30
Montenegro	..	..	..	42	48	42	47
Netherlands	2,771	3,042	3,106	3,316	3,443	2,997	2,971
North Macedonia	..	151	169	163	121	116	121
Norway	879	981	1,092	1,215	1,353	1,215	1,160
Poland	4,393	4,249	3,784	3,891	4,256	4,004	4,324
Portugal	703	846	1,031	1,109	983	918	910
Republic of Moldova	..	186	66	89	91	109	119
Romania	2,621	1,925	1,532	1,626	1,474	1,341	1,392
Russian Federation	..	26,720	25,994	27,338	28,932	28,943	31,678
Serbia	..	..	..	669	648	612	633
Serbia and Montenegro	..	522	556	..	..	..	..
Slovakia	..	742	740	777	736	675	705
Slovenia	..	254	274	316	307	276	285
Spain	3,762	4,211	5,073	5,914	5,335	4,904	5,036
Sweden	1,965	2,086	1,968	2,123	2,099	1,834	2,002
Switzerland	1,018	1,004	1,041	1,080	1,085	1,013	1,023
Ukraine	..	7,073	5,574	5,872	5,491	3,753	3,736
United Kingdom	8,612	9,037	9,317	9,318	8,511	7,596	7,139
USSR (former)	55,194	..	..	..	..	..	..
Yugoslavia, SFR (former)	1,797	..	..	..	..	..	..
<b>Oceania</b>	<b>4,418</b>	<b>4,782</b>	<b>5,506</b>	<b>5,769</b>	<b>6,499</b>	<b>6,605</b>	<b>6,733</b>
American Samoa	*7	*6	*6	*7	*7	*4	*4
Australia	3,694	3,962	4,567	4,790	5,396	5,330	5,424
Cook Islands	*1	*1	*1	1	*1	*1	*1
Fiji	23	*23	21	24	21	25	*26
French Polynesia	*7	7	9	12	14	13	13
Kiribati	*1	*1	1	1	1	1	*2
Marshall Islands	..	*1	*2	*2	*2	*2	*2
Micronesia (Fed. States of)	..	3	*3	2	2	2	*2

**Table 1****Total Energy Supply**

Petajoules

Country or area	1990	1995	2000	2005	2010	2015	2019
Nauru	*2	*1	*1	*1	*1	*1	*1
New Caledonia	21	27	30	37	46	61	66
New Zealand	560	645	748	747	839	958	960
Northern Mariana Islands	..	..	..	..	*7	*8	*8
Pacific Islands (former)	*3	..	..	..	..	..	..
Palau	..	*3	*3	*3	3	*3	*3
Papua New Guinea	88	89	99	126	141	178	*202
Samoa	*3	*4	4	4	4	5	6
Solomon Islands	*5	*6	*6	*7	*8	8	*8
Tonga	1	1	1	*2	2	2	2
Vanuatu	1	1	*2	2	3	3	3



**Table 2**

**Components of total energy supply**

Petajoules and Gigajoules per capita

**Table Notes**

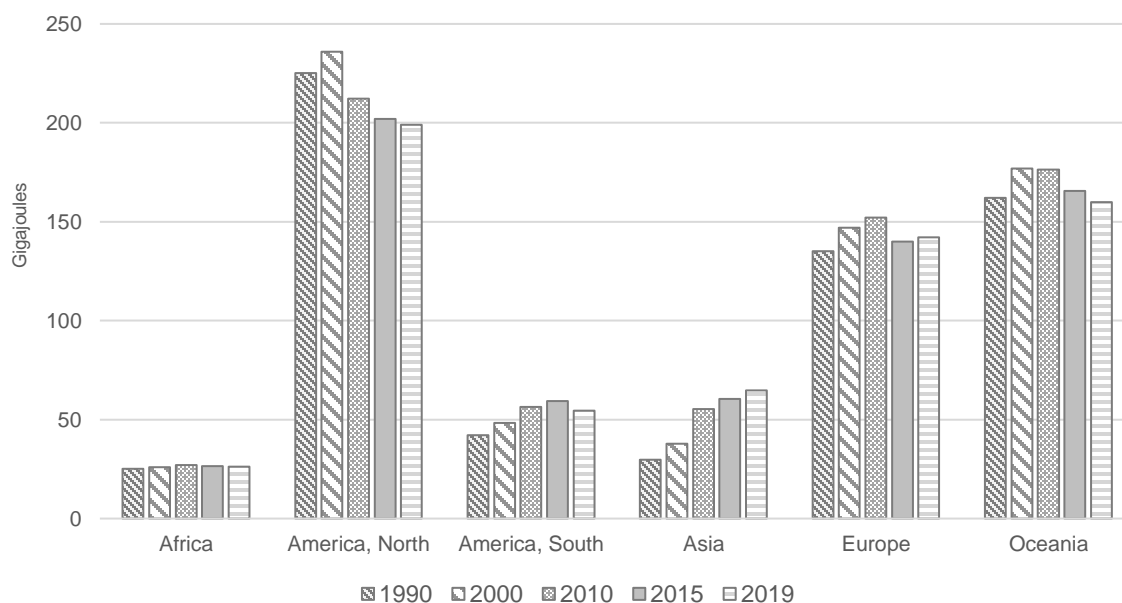
Included in the **Primary energy production** for **Solids** are hard coal, lignite, peat, oil shale, primary solid biofuels and wastes; **Liquids** are comprised of crude oil, natural gas liquids, other hydrocarbons, additives and oxygenates, and liquid biofuels; **Gas** comprises natural gas and biogas; **Electricity** is comprised of primary electricity generation from hydro, wind, tide, wave and solar sources; and **Heat** comprises primary heat from nuclear, geothermal, chemical and solar sources.

**Stock changes, trade and International bunkers** refer to all primary and secondary forms of energy.

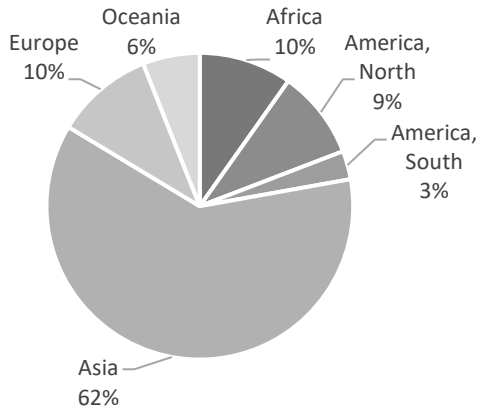
**Supply** is calculated as primary energy production plus import minus exports minus International bunkers minus stock changes.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

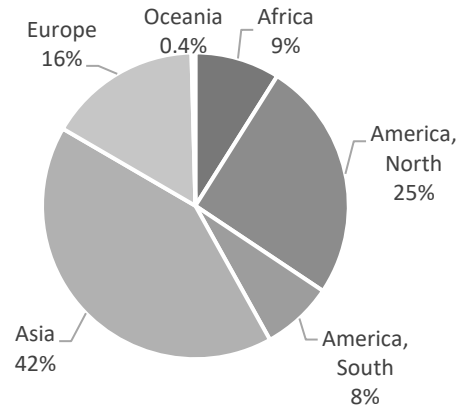
**Figure 4: Total per capita energy supply by region, selected years**



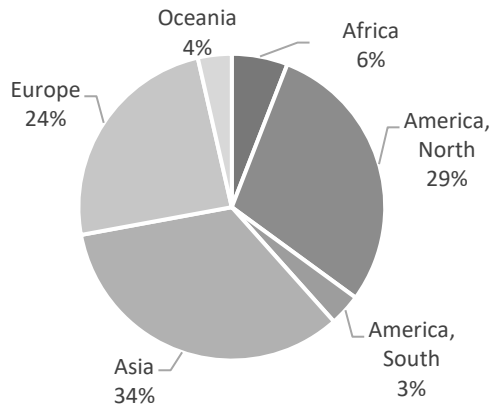
**Figure 5: Production of solids by region, 2019**



**Figure 6: Production of liquids by region, 2019**



**Figure 7: Production of gases by region, 2019**



**Figure 8: Primary electricity production by region, 2019**

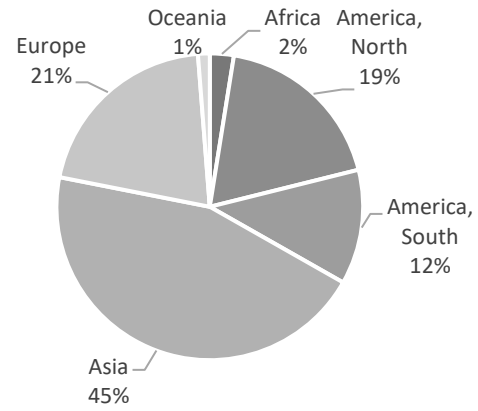




Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
World	2016	569,869	199,253	190,000	129,704	19,054	31,856
	2017	581,895	204,228	190,604	134,604	20,196	32,263
	2018	601,245	212,603	194,234	139,508	21,669	33,231
	2019	612,971	215,784	193,493	146,693	22,820	34,181
Africa	2016	44,298	20,227	15,638	7,598	482	354
	2017	46,309	20,586	16,643	8,207	508	365
	2018	46,947	20,950	16,903	8,203	550	342
	2019	48,095	21,156	17,329	8,659	576	374
Algeria	2016	6,284	0	2,947	3,335	*2	..
	2017	6,285	0	2,877	3,406	*2	..
	2018	6,254	1	2,816	3,434	*3	..
	2019	5,954	0	2,777	3,173	*3	..
Angola	2016	3,996	260	3,656	58	21	..
	2017	4,085	264	3,595	198	28	..
	2018	3,794	268	3,279	212	35	..
	2019	3,639	272	3,095	233	39	..
Benin	2016	107	107	..	..	0	..
	2017	110	110	..	..	0	..
	2018	113	113	..	..	0	..
	2019	121	121	..	..	0	..
Botswana	2016	51	51	..	..	0	..
	2017	59	59	..	..	0	..
	2018	65	65	..	..	0	..
	2019	56	56	..	..	0	..
Burkina Faso	2016	128	127	..	0	1	..
	2017	129	129	..	0	0	..
	2018	131	130	..	0	1	..
	2019	132	132	..	0	1	..
Burundi	2016	56	56	..	..	1	..
	2017	56	56	..	..	0	..
	2018	56	55	..	..	1	..
	2019	56	55	..	..	1	..
Cabo Verde	2016	*2	*1	..	..	0	..
	2017	*2	*1	..	..	0	..
	2018	*2	*1	..	..	0	..
	2019	*2	*1	..	..	0	..
Cameroon	2016	502	269	198	18	17	..
	2017	*477	*276	163	21	18	..
	2018	504	283	148	55	18	..
	2019	544	290	154	81	19	..
Central African Rep.	2016	34	33	..	..	1	..
	2017	*34	*33	..	..	1	..
	2018	*34	*34	..	..	1	..
	2019	*34	*34	..	..	1	..
Chad	2016	347	72	275	..	..	..
	2017	318	73	245	..	..	..
	2018	349	74	275	..	..	..
	2019	358	75	283	..	..	..
Comoros	2016	*4	*4	..	..	..	..
	2017	4	4	..	..	..	..
	2018	4	4	..	..	..	..
	2019	*4	*4	..	..	..	..
Congo	2016	602	65	512	21	4	..
	2017	684	67	591	22	4	..
	2018	812	68	716	25	4	..
	2019	834	68	729	34	3	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
230,642	236,200	7,687	8,572	-6,196	554,247	74
240,960	244,329	8,097	8,988	-3,408	564,848	75
243,894	249,612	8,443	8,699	126	578,259	76
242,668	248,815	8,529	8,536	5,166	584,593	76
7,620	19,474	333	161	-105	32,055	26
7,662	20,974	371	145	-130	32,610	26
7,616	21,365	371	218	-56	32,665	26
7,724	20,872	354	205	86	34,302	26
167	4,225	*17	10	-3	2,203	54
169	4,129	*16	10	12	2,288	55
60	3,846	*19	9	12	2,429	58
102	3,524	21	1	1	2,509	58
154	3,632	13	15	*-48	539	19
152	3,728	13	16	*-50	531	18
148	3,440	13	10	*-67	546	18
137	3,190	13	11	*10	553	17
91	..	1	0	-3	199	18
97	..	1	0	-2	207	19
109	..	1	..	3	219	19
101	0	1	0	0	220	19
47	5	0	..	0	92	43
46	5	0	..	..	99	45
47	7	1	..	..	104	46
49	7	1	..	..	98	42
43	0	1	..	-6	176	9
53	0	1	..	*-4	185	10
68	0	1	..	*4	193	10
62	0	1	..	*-6	199	10
7	0	0	..	0	63	6
*8	..	0	..	0	64	6
*10	..	0	..	0	66	6
*10	..	0	..	0	66	6
*13	..	*2	*3	..	*9	*17
*14	..	*2	*3	..	*10	*18
*14	..	*2	*3	..	*10	*18
*14	..	*2	*4	..	*10	*19
96	206	1	0	0	392	16
82	164	1	0	..	395	16
64	165	1	..	..	402	16
69	203	1	..	..	408	16
*4	..	1	..	..	37	8
*4	..	1	..	..	*37	*8
*4	..	1	..	..	*37	*8
*4	..	*1	..	..	*38	*8
*7	261	*1	..	..	91	6
*7	232	1	..	0	92	6
*7	261	1	..	..	94	6
*7	270	1	..	..	95	6
*3	..	0	..	..	*7	*8
*4	..	0	..	..	*8	*9
*4	..	0	..	..	*8	*10
*5	..	0	..	..	*8	*10
17	495	2	..	0	122	24
9	570	1	..	0	122	24
9	694	1	..	0	126	24
9	699	1	..	7	135	25

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Côte d'Ivoire	2016	454	268	93	87	6	..
	2017	436	264	85	79	7	..
	2018	415	262	71	72	11	..
	2019	436	268	77	78	13	..
Dem. Rep. of the Congo	2016	1,256	1,181	42	0	33	..
	2017	1,264	1,180	51	0	34	..
	2018	1,173	1,077	56	0	40	..
	2019	1,285	1,195	49	..	40	..
Djibouti	2016	4	4	..	..	..	..
	2017	4	4	..	..	..	..
	2018	4	4	..	..	..	..
	2019	4	4	..	..	..	..
Egypt	2016	3,105	225	1,369	1,455	56	..
	2017	3,418	225	1,341	1,795	56	..
	2018	3,364	228	1,362	1,718	56	..
	2019	3,982	207	1,331	2,379	66	..
Equatorial Guinea	2016	763	4	482	277	*1	..
	2017	715	4	421	289	*1	..
	2018	648	4	371	272	*1	..
	2019	570	4	347	219	*1	..
Eritrea	2016	26	26	..	..	0	..
	2017	26	26	..	..	0	..
	2018	27	27	..	..	0	..
	2019	27	27	..	..	0	..
Eswatini	2016	35	35	..	..	0	..
	2017	30	29	..	..	0	..
	2018	29	28	..	..	1	..
	2019	31	30	..	..	1	..
Ethiopia	2016	1,356	1,311	0	..	45	..
	2017	1,380	1,332	0	..	48	..
	2018	1,399	1,347	0	..	51	..
	2019	1,420	1,365	0	..	54	..
Gabon	2016	556	*53	481	19	3	..
	2017	518	*54	444	17	3	..
	2018	476	*55	401	16	4	..
	2019	535	*55	460	17	4	..
Gambia	2016	7	7	..	..	0	..
	2017	7	7	..	..	0	..
	2018	7	7	..	..	0	..
	2019	7	7	..	..	0	..
Ghana	2016	388	151	195	22	20	..
	2017	573	162	360	32	20	..
	2018	615	177	379	37	22	..
	2019	686	173	435	53	26	..
Guinea	2016	117	113	..	0	4	..
	2017	117	113	..	0	4	..
	2018	118	113	..	0	4	..
	2019	118	114	..	0	5	..
Guinea-Bissau	2016	26	26	..	..	..	..
	2017	26	26	..	..	0	..
	2018	26	26	..	..	0	..
	2019	26	26	..	..	0	..
Kenya	2016	736	560	..	..	14	161
	2017	738	556	..	..	10	171
	2018	*754	*553	..	0	16	185
	2019	*772	*566	..	..	17	188

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
164	152	7	3	0	455	19
160	130	*7	3	-1	456	19
160	131	7	3	..	434	17
172	152	8	4	..	444	17
32	44	5	..	..	1,240	16
38	51	5	..	..	1,246	15
38	57	6	..	..	1,149	14
37	50	5	..	..	1,266	15
12	0	4	*1	*1	10	10
11	0	*4	*1	0	10	11
*11	0	*4	*1	0	*10	*11
*11	0	*4	*1	0	*10	*10
1,274	603	19	2	-1	3,756	40
1,237	557	20	8	2	4,069	42
1,147	627	28	4	-1	3,853	39
796	659	35	3	..	4,081	41
*13	659	*2	..	-7	122	101
*13	596	2	..	-4	134	106
*12	558	2	..	1	99	76
*13	506	2	..	0	75	56
8	..	0	..	..	34	10
9	..	0	..	..	35	10
11	..	1	..	..	37	11
11	..	0	..	..	37	11
18	*4	0	..	0	49	44
17	5	0	..	..	42	37
18	3	0	..	..	44	38
*19	3	0	..	..	46	40
177	5	26	..	0	1,503	15
191	5	30	..	-4	1,539	14
199	4	32	..	-1	1,564	14
230	4	32	..	..	1,615	14
24	456	3	8	..	113	56
*18	407	2	5	13	110	53
17	375	2	5	..	110	52
*21	445	2	5	..	104	48
9	0	*1	..	..	15	7
9	0	*1	..	..	15	7
9	0	*1	..	..	15	7
*9	0	*1	..	..	*15	*7
213	205	6	0	14	376	13
177	366	6	4	12	363	12
195	384	8	0	-8	425	14
213	447	9	0	0	444	15
41	0	*1	..	..	156	13
49	0	*1	..	..	165	14
55	0	*1	..	..	171	14
66	0	*2	..	..	183	14
*6	0	*1	..	..	31	17
*6	0	*1	..	..	31	17
*6	0	*1	..	..	32	17
*6	0	*1	..	..	32	17
310	73	31	0	0	941	19
301	63	34	0	0	941	19
252	1	30	2	..	*973	*19
268	1	31	..	..	*1,008	*19

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					Heat
		Total	Solids	Liquids	Gases	Electricity	
Lesotho	2016	*19	*17	..	..	2	..
	2017	18	16	..	..	2	..
	2018	*17	*15	..	..	2	..
	2019	*16	*15	..	..	1	..
Liberia	2016	79	79	..	..	0	..
	2017	81	81	..	..	0	..
	2018	84	84	..	..	0	..
	2019	87	86	..	..	0	..
Libya	2016	1,407	24	851	533	0	..
	2017	2,414	25	1,900	489	0	..
	2018	2,883	25	2,383	475	0	..
	2019	3,187	25	2,677	485	0	..
Madagascar	2016	263	259	..	..	3	..
	2017	272	269	..	..	3	..
	2018	306	302	..	..	4	..
	2019	318	315	..	..	3	..
Malawi	2016	68	61	..	..	7	..
	2017	69	62	..	..	7	..
	2018	69	62	..	..	*7	..
	2019	71	63	..	..	*8	..
Mali	2016	*156	*152	..	..	4	..
	2017	*159	*155	..	..	4	..
	2018	*161	*157	..	..	*4	..
	2019	*162	*158	..	..	*4	..
Mauritania	2016	30	19	10	..	1	..
	2017	24	19	4	..	1	..
	2018	21	20	0	..	1	..
	2019	21	20	..	..	*1	..
Mauritius	2016	11	10	..	0	1	..
	2017	10	10	..	0	1	..
	2018	10	9	..	0	1	..
	2019	10	9	..	0	1	..
Morocco	2016	90	68	0	3	15	4
	2017	90	67	0	3	15	4
	2018	98	66	0	3	20	9
	2019	105	66	0	3	23	13
Mozambique	2016	685	452	2	175	56	..
	2017	849	625	0	173	51	..
	2018	968	745	0	173	50	..
	2019	835	609	0	171	54	..
Namibia	2016	20	15	..	..	5	0
	2017	21	15	..	..	6	0
	2018	22	17	..	..	5	0
	2019	24	20	..	..	4	0
Niger	2016	105	71	35	..	0	..
	2017	*98	*59	39	..	0	..
	2018	*106	*71	35	..	0	..
	2019	*112	*74	38	..	0	..
Nigeria	2016	10,059	4,704	3,882	1,443	29	..
	2017	10,297	4,784	3,942	1,542	28	..
	2018	10,499	4,865	4,046	1,563	24	..
	2019	10,795	4,931	4,260	1,579	24	..
Rwanda	2016	*86	*84	..	*2	1	..
	2017	*87	*84	..	*2	1	..
	2018	*88	*85	..	*2	1	..
	2019	*88	*85	..	*2	1	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply		
		Aviation	Marine		Total	Per capita	
*26	0	0	0	..	..	*45	*22
*29	0	0	0	..	..	*47	*22
*28	0	0	0	..	..	*45	*21
*29	0	0	0	..	..	*45	*21
*19	0	0	0	0	..	97	21
*17	0	0	0	0	..	97	21
*14	0	0	0	0	..	98	20
*15	0	0	0	0	..	101	20
257	902	2	3	..	..	757	117
249	1,922	2	9	..	..	729	111
243	2,397	2	11	..	..	714	107
258	2,523	2	12	..	..	908	134
48	..	1	0	3	..	306	12
53	..	2	0	-2	..	325	13
48	0	2	0	-4	..	356	14
59	0	2	0	2	..	374	14
15	0	0	..	..	..	83	5
17	0	0	..	..	..	85	5
20	0	0	..	..	..	88	5
20	0	0	..	..	..	90	5
*48	*2	*3	..	*1	..	*198	*11
*50	*2	*3	..	*1	..	*204	*11
*52	*2	*3	..	0	..	*207	*11
*53	*2	*3	..	0	..	*210	*11
38	*10	1	..	..	..	56	14
51	*4	1	..	*2	..	68	16
71	0	1	..	*16	..	74	17
76	..	1	..	*19	..	76	17
87	*4	6	14	6	..	67	53
108	..	7	19	22	..	69	55
104	..	7	24	14	..	69	54
110	3	6	27	14	..	69	55
778	1	28	6	3	..	831	23
817	1	30	6	2	..	869	24
836	1	32	6	17	..	878	24
867	5	34	6	-17	..	943	25
127	414	*2	..	*-64	..	460	17
99	647	1	0	-152	..	452	16
101	595	0	0	14	..	459	16
99	471	0	0	-2	..	464	15
67	3	2	..	..	..	83	35
67	3	2	..	..	..	83	35
67	4	2	..	0	..	84	34
66	4	2	..	0	..	84	34
6	13	2	..	0	..	97	5
7	*16	*3	..	0	..	*87	*4
7	*15	*2	..	*2	..	*94	*4
6	*5	*2	..	6	..	*105	*5
825	4,569	19	13	45	..	6,238	34
766	4,757	22	13	26	..	6,245	33
555	4,894	29	14	-100	..	6,217	32
941	5,123	20	14	-8	..	6,586	33
14	0	*1	..	0	..	*99	*8
15	0	*1	..	0	..	*101	*8
16	0	*1	..	0	..	*103	*8
24	0	*1	..	..	..	*111	*9

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Sao Tome and Principe	2016	1	1	..	..	0	..
	2017	1	1	..	..	0	..
	2018	1	1	..	..	0	..
	2019	1	1	..	..	0	..
Senegal	2016	66	65	..	1	0	1
	2017	69	67	..	1	0	1
	2018	69	68	..	0	0	1
	2019	75	73	..	1	*1	1
Seychelles	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Sierra Leone	2016	54	54	..	..	*1	..
	2017	55	54	..	..	1	..
	2018	55	54	..	..	1	..
	2019	56	55	..	..	1	..
Somalia	2016	136	136	..	..	0	..
	2017	139	139	..	..	0	..
	2018	143	143	..	..	0	..
	2019	147	147	..	..	0	..
South Africa	2016	6,630	6,395	3	26	25	182
	2017	6,587	6,344	4	23	33	183
	2018	6,629	6,409	4	35	39	141
	2019	6,712	6,465	3	40	38	165
South Sudan	2016	299	8	291	..	0	..
	2017	318	7	311	..	0	..
	2018	312	7	305	..	0	..
	2019	371	7	364	..	0	..
St. Helena and Depend.	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Sudan	2016	432	204	200	..	29	..
	2017	412	205	173	..	34	..
	2018	403	207	162	..	35	..
	2019	408	208	*164	..	37	..
Togo	2016	116	115	..	..	1	..
	2017	108	107	..	..	1	..
	2018	114	114	..	..	1	..
	2019	114	114	..	..	1	..
Tunisia	2016	261	45	113	95	2	5
	2017	239	45	96	90	2	6
	2018	232	46	92	86	2	7
	2019	218	46	84	78	3	7
Uganda	2016	773	761	..	..	12	..
	2017	809	797	..	..	13	..
	2018	847	834	..	..	13	..
	2019	889	874	..	..	15	..
United Rep. of Tanzania	2016	797	759	..	29	9	..
	2017	811	775	..	27	9	..
	2018	823	788	..	26	*9	..
	2019	834	791	..	34	9	..
Zambia	2016	355	315	..	..	40	..
	2017	377	333	..	..	44	..
	2018	394	348	..	..	46	..
	2019	391	350	..	..	41	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
*2	..	0	..	..	*3	*14
*2	..	0	..	..	*3	*14
*2	..	*1	..	..	*3	*14
*2	..	*1	..	..	*3	*14
154	37	9	6	-6	174	12
137	11	10	5	*-6	186	12
159	*19	9	*6	*4	191	12
179	*29	8	8	-1	209	13
17	0	*2	*7	*1	8	80
18	0	*2	7	0	8	83
16	0	*1	*6	0	8	86
15	0	*2	*5	0	8	85
17	..	0	..	..	71	10
16	..	1	..	..	70	9
15	..	0	..	..	70	9
17	..	0	..	..	73	9
*12	0	2	1	..	145	10
*12	0	2	*1	..	148	10
*12	..	2	*1	..	152	10
*12	..	2	*1	..	156	10
1,331	2,042	73	67	..	5,779	103
1,423	2,188	95	32	..	5,694	100
1,738	2,480	77	111	36	5,663	98
1,581	2,093	52	101	56	5,991	102
24	288	3	..	..	32	3
21	308	3	..	..	27	3
21	302	3	..	..	28	3
23	360	4	..	..	30	3
0	..	..	..	..	0	35
0	..	..	..	..	0	25
0	..	..	..	..	0	32
0	..	..	..	..	0	34
113	47	*7	1	0	491	12
140	12	*6	1	..	532	13
136	5	*5	*1	..	528	13
*137	*5	*5	*1	..	*535	*12
24	..	2	..	-1	138	18
24	..	2	1	-1	130	17
26	..	3	..	-1	138	17
26	0	3	..	..	138	17
322	106	9	0	1	467	41
340	84	11	0	-5	487	43
345	85	13	0	-5	484	42
348	74	13	0	0	477	41
68	1	4	..	..	836	21
76	1	4	..	..	879	21
81	1	5	..	..	922	22
83	1	5	..	..	966	22
108	..	5	1	..	898	17
106	..	6	1	..	910	17
108	..	6	0	..	924	16
105	..	6	0	..	933	16
70	3	1	..	-3	423	26
61	4	1	..	-4	437	26
56	5	1	..	-1	444	26
69	4	1	..	0	455	25



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Zimbabwe	2016	359	347	1	..	10	..
	2017	402	387	1	..	14	..
	2018	423	403	2	..	18	..
	2019	415	400	2	..	13	..
<b>America, North</b>	<b>2016</b>	<b>110,585</b>	<b>20,195</b>	<b>39,815</b>	<b>35,378</b>	<b>3,739</b>	<b>11,458</b>
	<b>2017</b>	<b>114,426</b>	<b>21,220</b>	<b>41,620</b>	<b>36,058</b>	<b>4,093</b>	<b>11,436</b>
	<b>2018</b>	<b>122,107</b>	<b>21,286</b>	<b>46,066</b>	<b>39,044</b>	<b>4,176</b>	<b>11,535</b>
	<b>2019</b>	<b>127,876</b>	<b>20,211</b>	<b>49,162</b>	<b>42,747</b>	<b>4,242</b>	<b>11,514</b>
Anguilla	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Antigua and Barbuda	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Aruba	2016	*1	0	..	..	*1	..
	2017	*1	0	..	..	*1	..
	2018	*1	0	..	..	*1	..
	2019	*1	0	..	..	*1	..
Bahamas	2016	0	0	..	..	..	..
	2017	0	0	..	..	..	..
	2018	0	0	..	..	..	..
	2019	0	0	..	..	..	..
Barbados	2016	3	1	1	1	0	..
	2017	3	1	1	1	0	..
	2018	3	1	1	1	0	..
	2019	3	0	1	1	0	..
Belize	2016	8	4	3	0	1	0
	2017	9	5	2	0	1	0
	2018	8	5	2	0	1	0
	2019	7	5	2	0	0	0
Bermuda	2016	*1	*1	..	..	0	..
	2017	*1	*1	..	..	0	..
	2018	*1	*1	..	..	0	..
	2019	*1	*1	..	..	0	..
Bonaire, St Eustatius, Saba	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
British Virgin Islands	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Canada	2016	20,294	1,713	9,497	6,474	1,513	1,097
	2017	21,617	1,799	10,463	6,713	1,547	1,096
	2018	22,506	1,734	11,232	6,927	1,522	1,090
	2019	22,413	1,718	11,457	6,644	1,499	1,095
Cayman Islands	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Costa Rica	2016	101	19	1	0	33	48
	2017	94	18	1	0	36	40
	2018	89	16	1	0	37	35
	2019	106	16	1	0	35	54

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
57	8	2	..	-38	444	32
60	5	2	..	12	443	31
67	6	3	..	7	474	33
62	8	2	..	2	464	32
<b>34,949</b>	<b>30,287</b>	<b>1,325</b>	<b>1,183</b>	<b>-1,348</b>	<b>114,087</b>	<b>199</b>
<b>35,091</b>	<b>34,399</b>	<b>1,343</b>	<b>1,351</b>	<b>-1,530</b>	<b>113,953</b>	<b>197</b>
<b>34,892</b>	<b>38,246</b>	<b>1,376</b>	<b>1,211</b>	<b>-853</b>	<b>117,019</b>	<b>201</b>
<b>33,017</b>	<b>40,462</b>	<b>1,392</b>	<b>1,335</b>	<b>984</b>	<b>116,720</b>	<b>199</b>
*2	..	..	..	..	*2	*153
*2	..	..	..	..	*2	*139
*2	..	..	..	..	*2	*141
*2	..	..	..	..	*2	*147
*10	0	*3	0	..	*7	*75
*10	0	*3	0	..	*7	*74
*10	0	*3	0	..	*7	*75
*10	0	*3	0	..	*7	*74
*16	..	*4	0	..	*13	*120
*16	..	*4	0	..	*13	*120
*16	..	*4	0	..	*13	*118
*17	..	*4	0	..	*13	*123
22	0	*1	*1	-8	29	76
28	0	*1	*3	*-6	30	79
38	0	*2	*2	*-5	39	101
42	0	*2	*2	*2	37	94
22	1	*5	..	1	17	61
21	1	*6	..	1	16	56
20	1	*5	..	0	17	61
20	1	*7	..	-1	16	55
10	2	1	..	0	15	41
10	2	1	..	0	16	43
10	1	1	..	0	16	41
12	1	1	..	0	17	44
9	..	*1	0	0	9	146
10	..	*1	0	*1	9	147
11	..	*1	0	0	10	164
9	..	*1	0	0	9	138
*4	..	0	*2	0	*2	*63
*4	..	0	*2	0	*2	*65
*3	..	0	*2	0	*2	*63
*4	..	0	*2	0	*2	*66
*3	..	..	..	..	*3	*102
*2	..	..	..	..	*2	*81
*2	..	..	..	..	*2	*76
*2	..	..	..	..	*2	*79
3,799	12,103	26	14	-196	12,146	334
3,598	12,575	26	16	-52	12,651	344
3,541	13,043	37	19	114	12,834	346
3,723	13,356	36	24	-59	12,779	342
9	..	2	..	..	8	126
10	..	2	..	..	8	131
10	..	2	..	..	9	136
11	..	1	..	..	10	152
116	3	8	..	-2	208	43
123	3	8	..	3	203	41
118	3	9	..	-4	198	40
123	3	10	..	2	214	42

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Cuba	2016	193	39	111	42	0	..
	2017	195	50	107	37	1	..
	2018	197	57	105	34	*1	..
	2019	184	49	101	33	*1	..
Curaçao	2016	1	..	..	..	1	..
	2017	1	..	..	..	1	..
	2018	1	..	..	..	1	..
	2019	1	..	..	..	1	..
Dominica	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Dominican Republic	2016	27	20	..	0	7	..
	2017	32	22	..	0	10	..
	2018	32	23	..	0	9	..
	2019	*29	*22	..	0	6	..
El Salvador	2016	82	19	..	1	5	57
	2017	87	23	..	1	7	56
	2018	85	22	..	0	7	56
	2019	82	22	..	1	7	53
Greenland	2016	2	0	..	..	1	..
	2017	1	0	..	..	1	..
	2018	*2	0	..	..	*1	..
	2019	*2	0	..	..	*1	..
Grenada	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Guatemala	2016	354	309	19	0	16	10
	2017	343	291	20	0	22	9
	2018	343	294	19	0	21	9
	2019	350	301	20	0	18	11
Haiti	2016	141	140	0	..	0	..
	2017	143	142	0	..	0	..
	2018	145	144	0	..	1	..
	2019	147	146	0	..	1	..
Honduras	2016	101	87	..	..	13	..
	2017	94	74	..	..	16	3
	2018	108	79	..	..	18	11
	2019	98	71	..	..	16	11
Jamaica	2016	9	8	..	..	1	..
	2017	9	7	..	..	2	..
	2018	*8	*7	..	..	2	..
	2019	8	7	..	..	2	..
Mexico	2016	7,644	652	5,220	1,276	150	346
	2017	6,938	604	4,721	1,114	157	342
	2018	6,733	609	4,425	1,177	168	354
	2019	6,328	569	4,109	1,151	172	327
Montserrat	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	0	..	..	..	0	..
Nicaragua	2016	91	61	..	..	4	25
	2017	94	63	..	..	4	27
	2018	97	64	..	..	4	29
	2019	96	64	..	0	4	28

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
294	*19	8	26	*-1	435	38
266	*31	7	*19	..	404	36
237	*39	3	*18	..	375	33
241	*38	*3	*17	..	367	32
469	316	3	65	..	86	534
298	163	3	65	..	68	421
246	120	3	65	..	60	368
99	0	3	65	..	32	195
*3	0	0	0	0	*3	*38
*2	0	0	0	0	*2	*34
*2	0	0	0	0	*2	*34
*3	0	0	0	0	*3	*35
345	0	22	0	0	350	34
337	0	24	1	3	341	32
355	0	24	1	-2	364	34
386	0	20	2	-2	395	37
101	1	7	..	..	174	27
95	1	7	..	..	173	27
101	1	8	..	..	177	28
114	1	8	..	..	188	29
8	..	..	1	0	9	153
8	..	..	1	0	9	156
*7	..	..	*1	0	*8	*138
*7	..	..	*1	..	*8	*140
4	..	0	..	0	4	37
4	..	0	..	0	4	39
5	..	0	..	0	5	43
5	..	0	..	0	5	46
250	38	3	17	9	537	32
250	37	4	18	4	531	31
257	34	5	18	-3	547	32
303	30	4	18	29	571	32
42	..	1	..	..	182	17
44	..	1	..	..	186	17
48	..	1	..	..	192	17
43	..	1	..	..	190	17
124	17	..	..	-17	225	24
148	0	..	..	18	223	24
148	20	..	..	4	231	24
163	21	..	..	-1	241	25
130	11	9	1	-2	120	41
131	12	8	2	2	115	39
131	12	9	2	0	117	40
130	13	9	3	-2	115	39
3,530	3,151	154	38	6	7,826	63
3,935	3,066	165	34	37	7,572	61
4,472	3,081	173	35	67	7,849	62
4,309	2,844	172	33	-176	7,764	61
0	..	0	0	0	0	84
0	..	0	0	0	0	74
0	..	0	0	..	0	84
0	..	0	0	..	0	70
72	1	1	..	-3	164	26
76	1	1	..	0	168	26
72	1	1	..	*-1	167	26
77	2	1	..	2	168	26

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Panama	2016	39	13	..	..	26	..
	2017	42	13	..	..	28	..
	2018	44	13	..	..	31	..
	2019	34	12	..	..	22	..
Puerto Rico	2016	1	..	..	..	1	..
	2017	1	..	..	..	1	..
	2018	1	..	..	..	1	..
	2019	2	..	..	..	2	..
Sint Maarten (Dutch part)	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
St. Kitts-Nevis	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
St. Lucia	2016	*1	*1	..	..	..	..
	2017	*1	*1	..	..	..	..
	2018	*1	*1	..	..	0	..
	2019	*1	*1	..	..	0	..
St. Pierre-Miquelon	2016	0	0	..	..	0	..
	2017	0	0	..	..	..	..
	2018	0	0	..	..	..	..
	2019	0	0	..	..	..	..
St. Vincent-Grenadines	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Trinidad and Tobago	2016	1,360	0	195	1,165	0	..
	2017	1,367	0	197	1,170	0	..
	2018	1,435	0	174	1,260	0	..
	2019	1,444	0	164	1,280	0	..
Turks and Caicos Islands	2016	0	0	..	..	..	..
	2017	0	0	..	..	..	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
United States	2016	80,132	17,105	24,768	26,419	1,965	9,874
	2017	83,352	18,106	26,107	27,022	2,257	9,861
	2018	90,268	18,217	30,106	29,643	2,349	9,953
	2019	96,539	17,206	33,307	33,637	2,455	9,934
United States Virgin Is.	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
<b>America, South</b>	<b>2016</b>	<b>31,731</b>	<b>6,575</b>	<b>17,065</b>	<b>5,269</b>	<b>2,557</b>	<b>264</b>
	<b>2017</b>	<b>31,101</b>	<b>6,651</b>	<b>16,374</b>	<b>5,214</b>	<b>2,621</b>	<b>242</b>
	<b>2018</b>	<b>29,714</b>	<b>6,537</b>	<b>15,154</b>	<b>5,039</b>	<b>2,733</b>	<b>251</b>
	<b>2019</b>	<b>29,056</b>	<b>6,484</b>	<b>14,617</b>	<b>4,922</b>	<b>2,762</b>	<b>272</b>
Argentina	2016	3,111	78	1,389	1,417	137	*89
	2017	3,035	85	1,329	1,405	151	66
	2018	3,152	96	1,353	1,480	153	70
	2019	3,292	107	1,394	1,553	152	86
Bolivia (Plur. State of)	2016	899	27	140	725	6	..
	2017	873	26	136	703	8	..
	2018	821	*26	129	656	10	..
	2019	733	25	120	576	13	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
299	1	30	143	-6	170	42
339	1	30	173	-11	188	46
341	1	32	167	-1	186	45
403	2	34	192	0	210	49
61	..	..	..	..	62	19
46	..	..	..	..	47	15
60	..	..	..	..	61	20
68	..	..	..	..	70	24
*22	..	*2	*8	..	*12	*287
*21	..	*2	*8	..	*11	*268
*20	..	*2	*8	..	*11	*257
*21	..	*2	*8	..	*11	*256
*4	..	0	..	..	*3	*67
*4	..	0	..	..	*3	*67
*4	..	0	..	..	*4	*67
*4	..	0	..	..	*4	*68
*9	..	1	0	..	*8	*42
*9	..	1	0	..	*8	*44
*9	..	1	0	..	*8	*44
*9	..	*1	0	..	*8	*44
*1	..	..	0	..	*1	*156
*1	..	..	0	..	*1	*157
*1	..	..	0	..	*1	*146
*1	..	..	0	..	*1	*159
4	0	0	..	0	4	33
3	0	0	..	0	3	29
4	0	0	..	0	4	33
3	0	0	..	0	3	31
221	830	14	26	14	698	507
193	816	10	22	10	703	508
137	832	8	17	6	708	509
90	807	7	3	-1	718	515
*6	..	*1	..	..	*5	*130
*6	..	*1	..	..	*5	*138
*6	..	*1	..	..	*5	*138
*6	..	*1	..	..	*5	*138
24,928	13,793	1,019	839	-1,142	90,550	280
25,038	17,691	1,027	986	-1,539	90,227	278
24,446	21,056	1,042	854	-1,029	92,790	284
22,556	23,343	1,060	965	1,192	92,534	281
..	..	..	..	..	0	*1
..	..	..	..	..	0	*1
..	..	..	..	..	0	*1
..	..	..	..	..	0	*1
<b>5,877</b>	<b>13,114</b>	<b>235</b>	<b>205</b>	<b>-62</b>	<b>24,116</b>	<b>58</b>
<b>6,143</b>	<b>13,379</b>	<b>227</b>	<b>207</b>	<b>-607</b>	<b>24,037</b>	<b>57</b>
<b>6,063</b>	<b>12,278</b>	<b>238</b>	<b>218</b>	<b>-211</b>	<b>23,256</b>	<b>55</b>
<b>5,793</b>	<b>11,110</b>	<b>236</b>	<b>215</b>	<b>11</b>	<b>23,278</b>	<b>55</b>
640	255	41	28	-1	3,428	79
650	219	43	33	4	3,385	77
562	355	39	30	1	3,288	74
400	362	39	19	-21	3,293	74
43	579	4	..	-12	372	34
52	554	3	..	-15	384	34
61	498	3	..	-9	390	34
77	423	3	..	2	382	33

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Brazil	2016	11,927	3,052	6,405	806	1,492	171
	2017	12,366	3,124	6,676	905	1,491	170
	2018	12,538	3,206	6,720	855	1,587	169
	2019	12,975	3,047	7,218	877	1,658	174
Chile	2016	525	365	11	46	102	2
	2017	543	376	13	47	104	4
	2018	571	379	17	48	116	10
	2019	572	360	22	58	122	10
Colombia	2016	5,678	2,619	2,069	822	169	..
	2017	5,605	2,616	2,004	778	207	..
	2018	5,380	2,446	1,982	747	205	..
	2019	5,507	2,568	2,027	715	197	..
Ecuador	2016	1,287	23	1,176	31	57	0
	2017	1,263	24	1,137	29	73	0
	2018	1,239	22	1,116	26	75	0
	2019	1,281	22	1,146	23	89	0
Falkland Is. (Malvinas)	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Guyana	2016	7	7	..	..	0	..
	2017	7	7	..	..	0	..
	2018	5	5	..	..	0	..
	2019	4	4	..	..	0	..
Paraguay	2016	374	138	6	..	230	..
	2017	362	141	6	..	215	..
	2018	346	126	7	..	213	..
	2019	309	122	8	..	178	..
Peru	2016	971	112	233	531	94	1
	2017	925	109	233	471	110	1
	2018	923	101	238	464	119	1
	2019	964	101	250	489	122	1
Suriname	2016	39	2	35	0	3	..
	2017	40	2	34	0	3	..
	2018	40	2	35	0	4	..
	2019	40	2	35	0	3	..
Uruguay	2016	132	89	3	..	40	..
	2017	137	92	3	..	42	..
	2018	137	92	3	..	42	..
	2019	142	90	3	..	48	..
Venezuela (Bolivar. Rep.)	2016	6,780	63	5,598	892	227	..
	2017	5,945	49	4,803	875	218	..
	2018	4,563	37	3,553	763	210	..
	2019	3,238	36	2,393	631	179	..
<b>Asia</b>	<b>2016</b>	<b>263,352</b>	<b>118,033</b>	<b>85,559</b>	<b>45,589</b>	<b>7,805</b>	<b>6,365</b>
	<b>2017</b>	<b>267,395</b>	<b>121,364</b>	<b>84,204</b>	<b>46,579</b>	<b>8,458</b>	<b>6,790</b>
	<b>2018</b>	<b>277,362</b>	<b>128,418</b>	<b>84,080</b>	<b>47,906</b>	<b>9,345</b>	<b>7,614</b>
	<b>2019</b>	<b>281,061</b>	<b>132,617</b>	<b>80,236</b>	<b>49,443</b>	<b>10,243</b>	<b>8,522</b>
Afghanistan	2016	71	60	..	6	4	..
	2017	83	73	..	5	4	..
	2018	90	80	..	5	4	..
	2019	82	73	..	5	5	..
Armenia	2016	43	8	..	..	8	26
	2017	45	9	..	..	8	28
	2018	37	6	..	..	8	23
	2019	38	5	..	..	9	24

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
2,444	2,100	95	143	29	12,004	58
2,697	2,521	93	141	18	12,289	59
2,649	2,716	105	121	48	12,196	58
2,589	3,047	102	140	88	12,186	58
1,143	50	24	5	6	1,582	87
1,141	46	26	6	4	1,603	87
1,149	45	28	5	7	1,635	87
1,220	23	32	4	5	1,728	91
338	3,892	..	..	-55	2,180	45
236	4,483	..	..	-543	1,902	39
198	3,900	..	..	-194	1,872	38
243	3,696	..	..	11	2,043	41
246	929	10	12	-15	597	36
254	902	11	15	-26	614	37
269	890	11	29	-16	594	35
294	933	11	23	-19	626	36
0	..	..	..	..	1	194
0	..	..	..	..	1	173
0	..	..	..	..	1	174
1	..	..	..	..	1	172
31	0	1	..	0	37	48
31	1	1	..	-1	37	47
33	0	1	..	0	38	48
38	0	1	..	0	41	52
103	177	2	..	3	295	44
108	160	3	..	-5	313	46
121	155	3	..	1	307	44
116	117	3	..	0	304	43
464	441	42	..	-14	967	31
535	482	30	..	-38	986	31
500	414	30	19	-48	1,008	32
469	384	31	17	-47	1,048	32
22	19	*2	2	0	38	68
14	15	*2	2	..	35	61
10	15	*2	2	..	32	55
14	8	*2	*2	..	43	74
96	3	4	6	-4	219	64
90	5	4	4	-5	217	63
101	4	5	6	-1	224	65
95	11	4	7	-7	221	64
305	4,669	11	8	0	2,396	80
336	3,991	12	7	0	2,272	77
409	3,285	10	6	..	1,671	58
238	2,104	7	4	..	1,362	48
<b>112,129</b>	<b>99,458</b>	<b>3,233</b>	<b>4,286</b>	<b>-3,732</b>	<b>272,235</b>	<b>61</b>
<b>119,123</b>	<b>99,603</b>	<b>3,386</b>	<b>4,479</b>	<b>-1,482</b>	<b>280,531</b>	<b>62</b>
<b>123,692</b>	<b>102,103</b>	<b>3,576</b>	<b>4,419</b>	<b>1,597</b>	<b>289,358</b>	<b>63</b>
<b>124,520</b>	<b>98,040</b>	<b>3,613</b>	<b>4,533</b>	<b>1,948</b>	<b>297,447</b>	<b>65</b>
114	21	*1	..	0	163	5
115	28	*3	..	-4	172	5
126	31	*2	..	*-2	184	5
136	22	0	..	*8	189	5
94	4	2	..	0	130	44
101	5	2	..	1	137	46
103	6	3	..	0	131	44
112	5	3	..	1	141	48



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Azerbaijan	2016	2,429	4	1,760	658	7	..
	2017	2,308	4	1,658	639	7	..
	2018	2,349	5	1,663	675	7	..
	2019	2,475	5	1,602	862	6	..
Bahrain	2016	940	0	443	497	0	..
	2017	942	0	431	512	0	..
	2018	946	0	427	520	0	..
	2019	1,045	0	438	606	0	..
Bangladesh	2016	1,602	615	14	968	5	..
	2017	1,605	619	18	964	5	..
	2018	1,602	615	18	963	5	..
	2019	1,561	586	17	953	4	..
Bhutan	2016	79	50	..	..	29	..
	2017	79	52	..	..	28	..
	2018	78	53	..	..	25	..
	2019	85	53	..	..	32	..
Brunei Darussalam	2016	633	0	252	380	0	..
	2017	652	0	235	416	0	..
	2018	639	0	232	407	0	..
	2019	637	0	253	384	0	..
Cambodia	2016	148	139	..	..	10	..
	2017	152	142	..	..	10	..
	2018	162	144	..	..	18	..
	2019	162	148	..	..	15	..
China	2016	95,893	74,411	8,737	5,215	5,227	2,303
	2017	99,407	76,934	8,447	5,700	5,647	2,679
	2018	104,741	80,663	8,358	6,269	6,273	3,179
	2019	109,745	83,746	8,407	6,978	6,851	3,762
China, Hong Kong SAR	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
China, Macao SAR	2016	3	3	..	..	..	..
	2017	3	3	..	..	..	..
	2018	3	3	..	..	..	..
	2019	4	4	..	..	..	..
Cyprus	2016	6	1	0	0	1	3
	2017	6	1	0	1	1	3
	2018	6	1	..	1	2	3
	2019	7	1	..	1	2	3
Georgia	2016	58	21	2	0	34	1
	2017	56	20	1	0	33	1
	2018	52	14	1	0	36	1
	2019	46	11	2	0	32	1
India	2016	22,412	18,536	1,747	1,106	614	409
	2017	22,877	18,903	1,746	1,132	682	414
	2018	23,978	19,889	1,665	1,154	861	408
	2019	24,030	19,899	*1,571	*1,062	996	502
Indonesia	2016	18,149	13,314	2,028	2,345	77	384
	2017	18,253	13,406	2,072	2,247	67	460
	2018	20,501	15,580	2,101	2,288	71	461
	2019	21,267	16,505	2,097	2,137	71	456
Iran (Islamic Rep. of)	2016	16,412	*115	9,087	7,079	60	71
	2017	17,273	*126	9,369	7,641	56	81
	2018	17,030	*130	8,783	7,979	57	81
	2019	14,786	*126	6,281	8,241	61	77

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
25	1,857	8	2	-13	599	62
97	1,770	7	2	21	604	61
78	1,806	5	2	7	607	61
13	1,802	14	1	7	664	66
462	821	19	..	6	556	390
484	844	20	..	-16	579	387
485	835	21	..	-7	582	371
493	863	22	..	-16	669	408
286	5	15	5	-16	1,879	12
343	2	17	5	-18	1,943	12
336	0	18	5	-49	1,964	12
532	0	19	6	..	2,068	13
8	21	0	..	..	66	89
9	21	0	..	..	67	90
10	17	0	..	..	70	93
10	23	0	..	..	71	94
16	523	3	2	-3	124	295
19	521	3	..	-5	153	359
16	488	4	..	8	156	364
97	553	5	..	7	169	390
134	..	3	..	..	279	18
142	..	5	..	..	289	18
156	..	6	..	..	312	19
187	..	7	..	4	338	21
25,618	3,041	369	391	-2,919	120,629	85
28,464	3,211	409	412	-1,208	125,047	88
31,612	3,392	445	440	1,417	130,659	92
34,033	3,624	467	426	2,658	136,602	95
1,314	20	276	375	53	590	81
1,344	17	292	450	-2	587	80
1,363	11	302	455	6	589	80
1,291	12	273	404	17	585	79
44	..	..	3	0	44	71
46	..	..	3	1	46	74
39	..	..	3	0	40	63
38	..	..	2	0	40	63
111	1	12	12	1	91	78
113	0	13	11	1	94	80
113	..	14	11	-1	95	80
113	..	13	12	0	95	79
160	11	3	..	0	204	51
165	11	4	..	-1	206	51
165	7	5	0	2	204	51
176	2	4	0	0	215	54
16,514	2,869	*216	61	-214	35,995	27
17,906	3,254	*167	64	-252	37,550	28
18,783	3,106	*182	*68	90	39,315	29
*19,411	3,005	*175	*70	-374	40,566	30
2,174	11,028	34	14	-152	9,399	36
2,303	11,438	43	14	4	9,057	34
2,444	12,492	46	9	76	10,323	39
2,123	12,149	40	9	45	11,146	41
393	6,594	*30	84	-170	10,266	129
367	6,509	*30	58	-1	11,043	137
342	5,968	*35	58	..	11,310	138
293	3,523	37	58	0	11,460	138

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Iraq	2016	9,667	2	9,391	261	12	..
	2017	9,882	2	9,575	297	8	..
	2018	9,994	2	9,580	404	8	..
	2019	10,308	2	9,881	418	7	..
Israel	2016	305	2	4	277	6	16
	2017	320	2	3	293	6	16
	2018	329	2	3	303	6	15
	2019	336	2	4	303	13	15
Japan	2016	1,441	539	19	109	473	301
	2017	1,701	589	19	112	523	459
	2018	2,073	602	17	103	544	806
	2019	2,079	598	18	97	562	804
Jordan	2016	10	3	0	3	3	..
	2017	12	3	0	4	5	..
	2018	14	3	0	3	8	..
	2019	17	3	0	3	11	..
Kazakhstan	2016	6,753	1,917	3,324	1,468	43	..
	2017	7,471	2,094	3,671	1,663	42	..
	2018	7,337	2,040	3,847	1,410	40	..
	2019	6,984	1,883	3,853	1,206	42	..
Korea, Dem.Ppl's.Rep.	2016	891	845	..	..	46	..
	2017	646	603	..	..	43	..
	2018	558	511	..	..	46	..
	2019	606	566	..	..	40	..
Korea, Republic of	2016	2,125	258	58	13	37	1,760
	2017	2,028	288	60	20	45	1,615
	2018	1,866	267	70	18	56	1,455
	2019	1,992	244	73	17	68	1,589
Kuwait	2016	7,281	0	6,689	591	0	..
	2017	6,775	0	6,190	585	0	..
	2018	6,873	0	6,266	607	0	..
	2019	6,766	0	6,097	669	0	1
Kyrgyzstan	2016	77	28	6	1	41	..
	2017	88	28	7	1	51	..
	2018	97	36	8	1	52	..
	2019	100	40	10	1	50	..
Lao People's Dem. Rep.	2016	267	202	..	..	65	..
	2017	280	205	..	..	75	..
	2018	296	213	..	..	83	..
	2019	276	208	..	..	68	..
Lebanon	2016	7	5	..	..	1	1
	2017	*8	*5	..	..	2	*1
	2018	*8	*5	..	0	1	*1
	2019	10	5	..	0	4	1
Malaysia	2016	3,812	99	1,485	2,154	73	..
	2017	3,830	111	1,435	2,188	97	..
	2018	3,951	106	1,439	2,309	97	..
	2019	4,085	108	1,334	2,544	99	..
Maldives	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Mongolia	2016	960	918	41	..	1	..
	2017	1,312	1,273	38	..	1	..
	2018	1,396	1,362	32	..	2	..
	2019	1,409	1,373	34	..	*2	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
754	7,939	29	11	133	2,309	63
797	8,048	28	12	15	2,576	69
828	8,079	27	12	27	2,677	70
473	8,464	28	12	-16	2,292	58
891	261	40	6	-29	918	113
938	265	45	10	33	905	110
910	274	48	13	-26	930	111
938	283	49	14	16	911	107
17,662	797	280	181	-74	17,919	140
17,705	770	293	169	-52	18,225	143
17,181	778	302	178	6	17,990	141
16,671	839	258	179	38	17,437	137
396	26	4	4	2	370	39
431	39	3	3	6	392	40
383	11	3	*2	0	382	38
395	11	*3	1	*-2	399	40
348	3,786	*15	0	-60	3,360	188
336	4,306	*21	0	-53	3,533	195
457	4,697	27	1	30	3,040	166
653	4,609	20	7	-3	3,003	162
81	599	..	..	..	374	15
63	71	..	..	..	638	25
43	..	..	..	..	601	24
47	..	..	..	..	653	25
13,025	2,695	204	422	-1	11,829	232
13,252	2,799	209	409	42	11,821	231
13,558	2,967	220	382	37	11,818	231
13,256	2,905	234	334	37	11,738	229
172	5,944	32	45	-108	1,540	389
192	5,543	40	39	-127	1,471	363
173	5,610	40	39	-130	1,487	359
179	5,339	41	38	-72	1,598	380
96	10	5	..	-4	162	27
96	16	1	..	5	162	26
117	24	0	..	-2	192	30
82	26	0	..	-3	159	25
49	71	2	..	19	224	33
49	92	2	..	-12	247	36
50	102	3	..	*-10	252	36
*54	*86	*2	..	*-4	246	34
352	..	*11	*1	..	348	52
374	..	*12	*1	..	369	54
353	..	*12	1	..	348	51
353	..	*12	*1	..	350	51
2,068	2,266	103	12	-46	3,545	116
2,042	2,264	110	16	3	3,478	112
2,346	2,329	107	17	13	3,830	121
2,262	2,356	116	18	*-39	3,896	122
24	..	*1	*2	..	21	43
24	..	*1	*2	..	22	44
28	..	*1	*3	..	25	48
31	..	*1	*3	..	28	53
47	711	1	..	-3	297	97
60	851	1	..	126	394	126
64	928	2	..	12	517	163
80	945	*2	..	*2	541	168

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Myanmar	2016	1,210	468	28	670	44	..
	2017	1,180	475	25	639	40	..
	2018	1,149	495	33	581	40	0
	2019	1,214	495	19	665	34	1
Nepal	2016	430	403	..	12	15	..
	2017	438	410	..	12	17	..
	2018	445	415	..	12	18	..
	2019	457	423	..	12	22	..
Oman	2016	3,310	0	2,101	1,209	0	..
	2017	3,242	0	2,028	1,214	0	..
	2018	3,446	0	2,074	1,371	0	..
	2019	3,448	0	2,060	1,387	0	..
Other Asia	2016	454	63	1	11	33	346
	2017	355	61	6	9	32	247
	2018	412	63	7	7	32	303
	2019	475	63	12	6	41	353
Pakistan	2016	2,322	*796	201	1,147	128	50
	2017	2,333	*790	208	1,138	123	74
	2018	2,350	*798	210	1,126	110	106
	2019	2,366	*816	211	1,108	132	99
Philippines	2016	1,204	584	45	140	37	399
	2017	1,199	608	41	138	43	370
	2018	1,223	609	42	154	42	376
	2019	1,274	655	42	155	37	385
Qatar	2016	9,452	0	3,226	6,226	..	..
	2017	9,290	0	3,086	6,204	..	..
	2018	9,297	0	3,126	6,170	..	..
	2019	9,363	0	3,118	6,245	..	..
Saudi Arabia	2016	28,663	..	24,238	4,425	0	..
	2017	28,103	..	23,572	4,530	0	0
	2018	28,569	..	23,861	4,706	0	2
	2019	27,418	..	22,732	4,682	2	2
Singapore	2016	28	28	..	..	1	..
	2017	28	27	..	..	1	..
	2018	26	25	..	..	1	..
	2019	27	25	..	..	1	..
Sri Lanka	2016	169	153	..	..	17	..
	2017	167	150	..	..	17	..
	2018	175	150	..	..	25	..
	2019	*178	*158	..	..	20	..
State of Palestine	2016	10	4	..	..	0	5
	2017	8	3	..	..	0	6
	2018	8	2	..	..	0	6
	2019	10	3	..	..	0	6
Syrian Arab Republic	2016	175	0	44	127	3	..
	2017	173	0	44	126	3	..
	2018	169	0	42	125	3	..
	2019	186	0	64	120	3	..
Tajikistan	2016	144	83	1	0	60	..
	2017	*157	*94	1	0	62	..
	2018	*165	*97	1	0	66	..
	2019	170	100	1	0	69	..
Thailand	2016	3,273	1,260	893	1,092	27	0
	2017	3,107	1,158	884	1,027	38	0
	2018	3,024	1,097	867	1,009	50	0
	2019	3,125	1,136	869	1,064	55	0

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
165	536	4	..	10	825	16
167	*500	3	..	-2	845	16
279	448	3	0	-5	981	18
286	532	3	0	..	965	18
119	0	6	..	0	544	20
141	0	6	..	..	574	21
169	0	5	..	..	608	22
145	0	4	..	..	597	21
85	2,291	23	*1	7	1,073	239
95	2,182	25	*1	0	1,130	242
79	2,361	18	*2	0	1,143	237
94	2,490	27	*4	0	1,021	205
5,110	729	121	52	-31	4,692	199
5,229	717	125	49	0	4,693	198
5,140	769	128	47	-28	4,635	195
5,097	811	133	53	19	4,558	192
1,431	20	11	4	2	3,717	18
1,704	33	*11	2	*-3	3,994	19
1,531	37	*9	2	0	3,834	18
1,522	27	*11	1	..	3,849	18
1,376	233	58	2	5	2,281	22
1,487	224	71	4	-35	2,422	23
1,618	207	73	4	60	2,498	23
1,572	286	72	2	-36	2,520	23
24	7,798	76	..	117	1,485	559
5	7,473	145	..	-15	1,691	621
10	7,476	191	..	13	1,627	585
11	7,448	203	..	0	1,723	608
1,194	19,916	124	140	-300	9,977	308
1,228	19,212	135	134	-186	10,036	303
1,973	20,506	152	142	*-210	9,952	295
*1,236	18,567	*151	*136	*-329	10,129	296
7,333	4,182	*322	1,969	-23	911	161
7,858	4,335	*332	2,051	28	1,140	200
7,236	3,846	*359	2,018	-31	1,070	186
6,722	3,658	*348	1,928	-8	823	142
300	4	23	24	-49	467	22
308	0	24	23	-33	461	22
317	4	22	25	-3	444	21
329	2	22	25	1	457	21
67	0	..	..	0	77	17
68	0	..	..	..	76	16
65	0	..	..	0	74	15
71	0	..	..	..	80	16
303	32	0	17	..	429	25
339	37	0	16	..	459	27
318	35	0	15	..	437	26
249	30	0	15	..	390	23
42	6	2	..	..	178	21
36	5	1	..	..	187	21
47	12	1	..	..	199	22
51	12	2	..	..	208	22
3,303	543	175	49	8	5,800	84
3,477	591	183	47	-6	5,769	83
3,675	630	198	56	165	5,649	81
3,456	502	203	47	34	5,795	83

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Timor-Leste	2016	310	1	104	205	0	..
	2017	271	1	85	185	0	..
	2018	259	1	69	188	0	..
	2019	224	1	59	165	0	..
Turkey	2016	1,495	760	118	27	302	287
	2017	1,527	761	118	30	284	334
	2018	1,671	801	132	35	316	386
	2019	1,891	841	139	41	431	439
Turkmenistan	2016	3,230	0	510	2,720	..	..
	2017	3,223	0	477	2,745	0	..
	2018	3,331	0	452	2,879	0	..
	2019	3,399	0	442	2,956	0	..
United Arab Emirates	2016	10,293	..	8,145	2,145	0	*2
	2017	9,790	..	7,885	1,899	2	3
	2018	9,626	..	7,935	1,685	4	3
	2019	9,723	..	7,772	1,935	13	2
Uzbekistan	2016	2,111	59	119	1,909	25	..
	2017	2,141	61	126	1,926	29	..
	2018	2,310	63	132	2,094	21	..
	2019	2,286	61	137	2,064	23	..
Viet Nam	2016	2,532	1,268	657	373	235	..
	2017	2,499	1,264	587	327	321	..
	2018	2,629	1,461	524	339	305	..
	2019	2,776	1,638	484	346	308	..
Yemen	2016	66	5	42	18	1	..
	2017	71	5	54	11	1	..
	2018	74	5	64	4	2	..
	2019	113	5	102	4	2	..
<b>Europe</b>	<b>2016</b>	<b>102,674</b>	<b>21,618</b>	<b>31,055</b>	<b>32,670</b>	<b>4,241</b>	<b>13,089</b>
	<b>2017</b>	<b>104,674</b>	<b>21,746</b>	<b>31,004</b>	<b>34,543</b>	<b>4,279</b>	<b>13,102</b>
	<b>2018</b>	<b>106,872</b>	<b>22,981</b>	<b>31,318</b>	<b>34,805</b>	<b>4,607</b>	<b>13,161</b>
	<b>2019</b>	<b>107,259</b>	<b>22,332</b>	<b>31,353</b>	<b>35,692</b>	<b>4,715</b>	<b>13,168</b>
Albania	2016	82	8	45	3	26	1
	2017	68	8	41	3	16	1
	2018	81	9	39	3	31	1
	2019	71	7	43	2	19	1
Andorra	2016	1	0	..	..	0	..
	2017	1	0	..	..	0	..
	2018	1	0	..	..	0	..
	2019	*1	0	..	..	0	..
Austria	2016	511	231	50	53	167	9
	2017	513	235	46	57	166	9
	2018	486	225	44	45	162	9
	2019	498	226	43	41	179	9
Belarus	2016	166	86	73	6	1	..
	2017	180	98	74	6	2	..
	2018	170	86	76	6	2	..
	2019	177	92	77	6	3	..
Belgium	2016	639	99	15	10	32	482
	2017	628	96	18	9	36	468
	2018	486	97	17	10	42	320
	2019	656	96	18	10	51	481
Bosnia and Herzegovina	2016	199	178	..	..	20	..
	2017	194	180	..	0	14	..
	2018	237	214	..	0	24	..
	2019	226	203	..	0	23	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
7	309	0	..	..	8	7
8	270	0	..	..	9	7
8	258	0	..	..	8	6
9	224	0	..	..	10	8
4,743	307	147	36	33	5,715	72
5,205	326	152	35	79	6,139	76
4,842	250	163	38	31	6,030	73
4,840	403	189	37	-15	6,118	73
0	2,052	21	..	..	1,158	204
0	2,044	21	..	..	1,158	201
0	2,151	21	..	..	1,160	198
0	2,187	21	..	..	1,191	200
1,759	7,740	365	*345	*2	3,600	385
1,967	8,083	326	425	74	2,848	300
2,043	8,301	301	358	60	2,649	275
2,130	8,673	316	677	*-2	2,189	224
141	378	*4	..	23	1,847	59
145	429	*3	..	15	1,839	58
89	518	*4	..	-69	1,946	60
96	428	*3	..	-48	1,999	61
1,103	452	34	8	*62	3,078	33
1,195	435	41	9	92	3,117	33
1,518	322	50	12	111	3,653	38
2,003	292	56	7	22	4,401	46
94	*9	0	4	..	147	5
80	*11	0	4	..	136	5
75	*14	0	4	0	131	5
70	*22	0	5	..	155	5
<b>67,422</b>	<b>60,677</b>	<b>2,336</b>	<b>2,699</b>	<b>-774</b>	<b>105,158</b>	<b>141</b>
<b>70,248</b>	<b>62,345</b>	<b>2,525</b>	<b>2,767</b>	<b>228</b>	<b>107,057</b>	<b>143</b>
<b>68,767</b>	<b>61,478</b>	<b>2,621</b>	<b>2,593</b>	<b>-325</b>	<b>109,272</b>	<b>146</b>
<b>68,757</b>	<b>63,164</b>	<b>2,663</b>	<b>2,199</b>	<b>1,878</b>	<b>106,113</b>	<b>142</b>
61	45	0	1	5	91	31
67	28	0	2	6	100	35
54	38	0	1	5	91	32
64	37	1	1	5	91	32
8	0	0	..	..	9	116
8	0	0	..	..	9	116
9	0	0	..	..	9	122
8	0	0	..	..	9	119
1,344	450	33	1	-16	1,388	159
1,349	414	31	1	3	1,413	160
1,334	415	35	1	-6	1,374	155
1,381	336	41	1	107	1,396	156
1,534	662	5	..	-27	1,060	112
1,546	640	6	..	-1	1,081	114
1,585	609	6	..	10	1,129	119
1,558	631	8	..	15	1,081	114
3,314	1,318	62	282	-19	2,310	203
3,499	1,491	68	317	-53	2,304	202
3,679	1,459	72	393	21	2,221	193
3,689	1,601	73	347	36	2,288	198
143	55	0	..	4	282	83
146	51	0	..	7	282	84
142	67	0	..	0	312	94
132	49	0	..	6	303	92



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Bulgaria	2016	474	265	4	6	24	175
	2017	493	289	5	5	21	173
	2018	506	289	6	3	28	179
	2019	492	277	7	3	20	184
Croatia	2016	185	65	32	59	29	1
	2017	176	65	32	54	24	1
	2018	175	63	32	46	33	1
	2019	164	63	31	39	27	4
Czechia	2016	1,144	816	16	33	17	262
	2017	1,157	782	17	33	17	308
	2018	1,154	762	17	33	17	325
	2019	1,119	722	18	32	18	329
Denmark	2016	633	105	298	179	49	2
	2017	646	105	290	193	56	2
	2018	571	102	244	168	54	3
	2019	512	99	216	132	62	3
Estonia	2016	208	205	..	1	2	..
	2017	242	239	..	1	3	..
	2018	277	273	..	1	2	..
	2019	226	223	..	1	3	..
Faeroe Islands	2016	1	..	..	..	1	..
	2017	1	..	..	..	1	..
	2018	1	..	..	..	1	..
	2019	1	..	..	..	1	..
Finland	2016	737	403	5	5	68	256
	2017	753	416	12	7	71	248
	2018	812	473	11	8	69	251
	2019	796	446	13	8	67	262
France	2016	5,446	571	138	32	329	4,375
	2017	5,357	557	133	35	305	4,327
	2018	5,600	553	146	37	378	4,486
	2019	5,444	552	139	41	376	4,336
Germany	2016	4,810	2,476	287	595	499	953
	2017	4,795	2,474	287	576	499	863
	2018	4,694	2,402	289	514	624	865
	2019	4,362	2,032	283	499	691	855
Gibraltar	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Greece	2016	283	202	12	5	53	11
	2017	301	225	11	5	49	12
	2018	301	213	14	5	57	12
	2019	252	163	14	6	57	12
Guernsey	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	0	..	..	..	0	..
Hungary	2016	478	170	59	64	4	182
	2017	473	160	61	63	5	183
	2018	465	150	65	65	5	179
	2019	458	135	68	59	9	186
Iceland	2016	297	0	..	0	49	248
	2017	300	1	..	0	51	248
	2018	337	1	..	0	50	286
	2019	335	..	..	0	48	286

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
538	241	9	3	1	757	106
558	246	10	3	9	782	110
486	196	11	3	0	781	111
525	225	10	3	8	771	110
314	140	5	0	1	353	84
344	146	6	0	3	364	87
337	145	8	1	3	354	85
338	130	8	1	2	361	87
904	326	13	..	-34	1,742	164
999	316	15	..	8	1,817	171
962	288	17	..	-2	1,813	170
1,008	269	18	..	52	1,789	167
767	661	40	28	-26	697	122
675	586	41	22	-30	701	122
682	497	43	25	-16	703	122
756	462	44	31	61	669	116
110	88	2	12	-24	240	183
108	96	3	13	-1	239	182
118	115	3	12	6	259	196
117	105	3	8	6	220	166
*10	..	0	1	..	*9	*191
*11	..	0	2	..	*10	*214
*12	..	0	2	..	*11	*219
*12	..	0	2	..	*11	*221
1,063	404	27	12	-46	1,403	255
1,033	398	29	15	-47	1,392	253
1,053	391	33	14	11	1,415	256
1,038	428	36	14	-32	1,388	251
6,393	1,273	237	69	-75	10,335	155
6,622	1,351	240	73	-8	10,322	154
6,442	1,400	249	82	41	10,270	153
6,507	1,448	262	72	56	10,114	150
10,813	2,193	372	118	-29	12,968	158
11,237	2,548	411	96	-36	13,012	157
9,804	1,407	424	71	-76	12,672	152
10,063	1,364	420	57	269	12,314	147
166	..	0	156	..	9	277
184	..	0	174	..	10	286
181	..	0	170	..	11	314
187	..	0	174	2	11	332
1,549	780	38	73	-4	945	89
1,608	823	42	90	-4	958	91
1,632	869	47	92	-4	929	88
1,593	791	49	106	-16	915	87
1	..	..	..	..	1	16
1	..	..	..	..	1	17
1	..	..	..	..	1	18
1	..	..	..	..	1	12
813	213	8	..	0	1,069	110
1,014	313	10	..	50	1,114	114
1,032	381	12	..	-13	1,117	115
1,223	442	12	..	112	1,114	115
45	..	13	2	0	326	981
47	..	16	3	0	327	978
53	..	18	3	3	366	1,088
43	..	13	3	-2	363	1,072

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Ireland	2016	176	43	1	106	25	1
	2017	203	50	1	122	29	1
	2018	208	56	1	117	34	1
	2019	171	38	1	92	39	1
Isle of Man	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	*1	*1	..	..	0	..
	2019	*1	*1	..	..	0	..
Italy	2016	1,401	389	197	277	296	242
	2017	1,421	411	220	269	282	239
	2018	1,452	379	250	266	321	236
	2019	1,437	390	238	249	325	235
Jersey	2016	*1	*1	..	..	..	..
	2017	*1	*1	..	..	..	..
	2018	*1	*1	..	..	..	..
	2019	*1	*1	..	..	..	..
Kosovo	2016	84	83	..	..	1	0
	2017	75	74	..	..	1	0
	2018	76	75	..	..	1	0
	2019	77	76	..	..	1	0
Latvia	2016	102	87	2	4	10	..
	2017	108	86	2	4	16	..
	2018	119	103	3	4	9	..
	2019	118	104	3	3	8	0
Liechtenstein	2016	*1	*1	..	0	0	0
	2017	*1	*1	..	0	0	0
	2018	*1	*1	..	0	0	0
	2019	*1	*1	..	0	0	0
Lithuania	2016	77	54	7	1	6	10
	2017	85	58	7	1	7	12
	2018	83	56	8	2	6	11
	2019	83	55	8	2	7	11
Luxembourg	2016	7	5	..	1	1	0
	2017	8	5	..	1	2	0
	2018	9	6	..	1	2	0
	2019	10	7	..	1	2	0
Malta	2016	1	..	0	0	0	0
	2017	1	..	0	0	1	0
	2018	1	..	..	0	1	0
	2019	1	..	..	0	1	0
Montenegro	2016	28	21	..	..	7	..
	2017	27	23	..	..	4	..
	2018	31	23	..	..	8	..
	2019	32	25	..	..	7	..
Netherlands	2016	1,934	116	120	1,608	36	55
	2017	1,725	117	133	1,379	46	49
	2018	1,528	116	131	1,177	52	51
	2019	1,376	121	118	1,017	61	58
North Macedonia	2016	51	43	0	..	7	0
	2017	53	48	0	..	4	0
	2018	51	44	0	..	7	0
	2019	51	46	..	..	5	0
Norway	2016	8,793	77	3,905	4,286	522	3
	2017	9,036	60	3,896	4,553	523	4
	2018	8,679	61	3,628	4,473	514	4
	2019	8,188	62	3,424	4,227	472	4

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
511	74	36	7	-16	586	125
504	85	43	6	-2	575	121
506	77	46	7	3	581	121
503	69	46	6	-22	574	118
5	0	..	..	..	5	55
4	0	..	..	..	4	54
4	0	..	..	..	4	53
5	1	..	..	..	5	58
6,390	1,311	142	93	-61	6,307	104
6,615	1,407	147	97	-24	6,408	106
6,407	1,308	165	115	-18	6,289	104
6,362	1,241	170	112	55	6,221	103
2	..	..	..	..	3	29
2	..	..	..	..	3	29
2	..	..	..	..	3	28
2	..	..	..	..	3	28
31	4	0	..	-2	113	64
36	3	0	..	0	108	60
35	3	0	..	0	109	60
39	4	0	..	0	112	63
183	89	5	13	-1	179	91
176	87	6	11	-4	185	95
186	96	7	2	8	194	101
181	89	7	12	3	188	99
2	..	..	..	..	3	88
2	..	..	..	..	3	89
2	..	..	..	..	3	90
2	..	..	..	..	3	90
620	387	4	7	0	299	103
619	385	5	7	-5	313	110
599	353	5	9	-1	317	113
616	365	5	8	3	318	115
178	7	22	..	0	156	270
183	7	25	..	0	159	269
188	6	26	..	0	165	273
188	4	26	..	0	167	272
117	12	5	74	2	25	58
135	6	6	90	5	28	65
141	15	7	93	-2	29	65
146	16	7	96	-2	30	69
20	5	1	..	1	41	65
23	5	1	..	0	43	68
21	7	1	..	-1	45	72
22	7	1	..	-1	47	75
8,483	6,782	166	491	-80	3,059	180
8,552	6,611	170	482	-78	3,092	182
8,654	6,465	172	463	44	3,037	178
8,435	6,075	169	495	102	2,971	174
71	5	..	..	1	116	56
70	5	..	..	-2	119	57
69	6	..	..	2	112	54
78	9	..	..	-1	121	58
331	7,914	22	5	12	1,171	223
409	8,225	23	8	-38	1,227	232
465	7,837	24	10	23	1,249	234
504	7,535	24	9	-35	1,160	216

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Poland	2016	2,791	2,493	81	160	53	4
	2017	2,690	2,384	80	159	63	4
	2018	2,611	2,315	81	157	54	4
	2019	2,484	2,177	83	156	64	5
Portugal	2016	251	121	12	3	105	10
	2017	218	121	13	4	69	12
	2018	245	122	13	3	94	12
	2019	246	130	14	3	86	12
Republic of Moldova	2016	30	29	0	0	0	..
	2017	32	32	0	0	0	..
	2018	36	35	0	0	0	0
	2019	30	29	0	0	0	0
Romania	2016	1,045	331	170	327	95	123
	2017	1,071	340	162	358	86	126
	2018	1,053	320	160	356	93	124
	2019	1,031	315	161	344	87	123
Russian Federation	2016	57,679	9,098	23,219	22,542	667	2,155
	2017	60,017	9,627	23,173	24,323	669	2,224
	2018	62,422	10,952	23,560	24,980	692	2,239
	2019	64,239	11,011	23,795	26,439	707	2,287
Serbia	2016	446	348	41	18	39	0
	2017	438	348	40	17	33	0
	2018	418	324	39	16	39	0
	2019	426	335	38	16	37	0
Slovakia	2016	266	70	8	10	18	162
	2017	265	63	7	11	17	166
	2018	256	61	8	9	15	163
	2019	287	83	8	10	18	168
Slovenia	2016	145	63	..	1	17	63
	2017	153	67	0	1	15	69
	2018	147	64	0	2	18	63
	2019	145	62	0	1	17	64
Spain	2016	1,391	274	63	12	336	707
	2017	1,367	298	79	12	273	704
	2018	1,386	289	78	14	335	669
	2019	1,387	255	86	16	323	707
Sweden	2016	1,438	458	11	7	280	682
	2017	1,490	465	9	7	299	710
	2018	1,502	452	16	7	285	741
	2019	1,513	463	19	8	309	715
Switzerland	2016	468	101	0	5	130	232
	2017	461	102	0	5	129	224
	2018	518	100	0	5	133	279
	2019	544	103	1	6	145	289
Ukraine	2016	2,754	1,081	98	637	33	906
	2017	2,431	695	95	649	38	953
	2018	2,529	751	100	692	46	940
	2019	2,503	739	108	685	41	930
United Kingdom	2016	5,020	351	2,086	1,616	191	777
	2017	5,023	339	2,060	1,620	241	762
	2018	5,157	362	2,241	1,579	270	705
	2019	5,087	363	2,278	1,537	300	609
Oceania	2016	17,229	12,604	868	3,200	230	327
	2017	17,990	12,660	759	4,003	239	329
	2018	18,242	12,432	714	4,512	258	327
	2019	19,624	12,984	795	5,230	282	332

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
2,177	852	29	8	-111	4,190	110
2,430	710	37	11	-22	4,384	116
2,657	655	43	11	109	4,451	117
2,664	594	46	12	172	4,324	114
1,069	334	49	32	-6	910	88
1,168	337	55	33	10	951	92
1,057	271	59	34	19	919	90
1,009	240	63	40	2	910	89
85	1	1	..	0	113	28
90	1	2	..	0	118	29
94	1	2	..	0	126	31
92	0	2	..	0	119	29
559	261	11	1	-5	1,336	67
582	249	13	1	-11	1,400	71
604	256	5	1	-16	1,411	72
677	249	6	1	59	1,392	72
*995	28,124	*214	692	48	29,596	204
*1,130	28,804	238	729	669	30,706	211
*1,121	29,899	246	*497	-325	33,226	228
*981	32,733	251	96	461	31,678	217
247	60	5	1	-6	633	89
278	60	6	1	3	647	92
285	65	6	1	-5	635	91
280	56	6	1	11	633	91
635	223	2	..	-9	686	126
688	222	2	..	13	717	132
645	191	2	..	-8	716	131
691	195	2	..	75	705	129
261	122	1	5	0	278	134
275	124	1	6	3	293	141
278	125	2	9	-1	290	139
285	133	1	8	2	285	137
5,228	1,292	176	315	-104	4,941	106
5,615	1,371	192	280	-68	5,208	112
5,554	1,322	200	293	-58	5,183	111
5,420	1,208	205	301	58	5,035	108
1,533	822	35	84	53	1,977	201
1,472	886	38	98	-87	2,026	205
1,488	849	40	75	-37	2,063	207
1,288	637	38	85	39	2,002	199
722	129	73	0	3	986	118
728	127	75	0	-6	992	117
675	136	79	0	-19	997	117
715	148	80	0	8	1,023	119
1,246	54	*5	..	-19	3,960	89
1,481	74	12	..	93	3,732	84
1,421	56	..	..	-28	3,922	89
1,460	66	..	..	161	3,736	85
5,831	2,963	466	112	-185	7,496	113
5,925	3,106	500	95	-131	7,378	111
6,011	3,200	504	103	4	7,357	110
5,868	3,170	508	98	40	7,139	106
<b>2,645</b>	<b>13,191</b>	<b>224</b>	<b>38</b>	<b>-175</b>	<b>6,596</b>	<b>163</b>
<b>2,693</b>	<b>13,628</b>	<b>245</b>	<b>39</b>	<b>112</b>	<b>6,659</b>	<b>162</b>
<b>2,864</b>	<b>14,142</b>	<b>260</b>	<b>41</b>	<b>-25</b>	<b>6,688</b>	<b>161</b>
<b>2,858</b>	<b>15,168</b>	<b>272</b>	<b>49</b>	<b>260</b>	<b>6,733</b>	<b>160</b>

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
American Samoa	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Australia	2016	16,201	12,412	742	2,912	120	15
	2017	16,970	12,466	645	3,711	132	16
	2018	17,266	12,233	617	4,253	147	17
	2019	18,623	12,782	696	4,954	173	18
Cook Islands	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Fiji	2016	6	4	..	..	2	..
	2017	7	5	..	..	2	..
	2018	6	4	..	..	2	..
	2019	7	5	..	..	2	..
French Polynesia	2016	1	0	..	..	1	0
	2017	1	0	..	..	1	0
	2018	1	0	..	..	1	0
	2019	1	0	..	..	1	0
Guam	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Kiribati	2016	*1	*1	..	..	0	..
	2017	*1	*1	..	..	0	..
	2018	*1	*1	..	..	0	..
	2019	*1	*1	..	..	0	..
Marshall Islands	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Micronesia (Fed. States of)	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Nauru	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
New Caledonia	2016	1	0	0	..	1	0
	2017	2	0	0	..	2	0
	2018	2	0	0	..	1	0
	2019	2	0	0	..	2	0
New Zealand	2016	769	114	77	180	102	296
	2017	758	114	70	178	98	298
	2018	731	119	55	158	102	295
	2019	744	119	56	170	101	298
Niue	2016	0	0	..	..	0	0
	2017	0	0	..	..	0	0
	2018	0	0	..	..	0	0
	2019	0	0	..	..	0	0
Northern Mariana Islands	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
*5	..	0	0	..	*4	*76
*5	..	0	0	..	*4	*77
*5	..	0	0	..	*4	*77
*5	..	0	0	..	*4	*77
2,041	12,904	170	22	-174	5,321	219
2,091	13,353	186	22	119	5,381	219
2,230	13,893	198	23	-38	5,422	218
2,217	14,907	209	31	268	5,424	215
*1	..	0	0	..	*1	*61
*2	..	0	0	..	*1	*66
*2	..	0	0	..	*1	*67
*2	..	0	0	..	*1	*68
33	15	*1	*2	*-2	23	26
35	13	*1	*2	*-1	25	29
*39	*14	*1	*3	*1	*26	*29
*38	*15	*1	*3	0	*26	*29
12	..	..	..	0	13	48
12	..	..	..	0	13	47
13	..	..	..	0	13	47
13	..	..	..	0	13	47
..	..	..	..	..	0	1
..	..	..	..	..	0	1
..	..	..	..	..	0	1
..	..	..	..	..	0	1
1	..	0	..	..	1	12
1	..	0	..	..	2	14
*1	..	0	..	..	*2	*14
*1	..	0	..	..	*2	*13
*2	..	0	..	..	*2	*38
*2	..	0	..	..	*2	*39
*2	..	0	..	..	*2	*39
*2	..	0	..	..	*2	*39
*3	..	0	0	..	*2	*20
*3	..	0	0	..	*2	*19
*3	..	0	0	..	*2	*19
*3	..	0	0	..	*2	*19
*1	..	0	0	0	*1	*70
*1	..	0	0	..	*1	*74
*1	..	0	0	..	*1	*70
*1	..	0	0	..	*1	*68
68	..	1	0	0	67	246
66	..	1	0	-1	68	245
69	..	1	1	1	68	243
65	..	1	0	0	66	232
355	110	46	12	4	951	204
349	103	51	12	-10	952	202
361	92	54	12	8	926	195
366	95	54	13	-11	960	201
0	..	0	..	..	0	*62
0	..	0	..	..	0	*60
0	..	0	..	..	0	*64
0	..	0	..	..	0	*66
*8	..	0	*1	..	*7	*131
*9	..	0	*1	..	*8	*138
*9	..	0	*1	..	*8	*134
*9	..	0	*1	..	*8	*134



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Palau	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Papua New Guinea	2016	244	68	49	108	4	15
	2017	245	69	44	113	4	15
	2018	229	69	41	101	3	15
	2019	*240	*72	*43	*106	*3	*16
Samoa	2016	2	1	..	0	0	0
	2017	*2	*1	..	0	0	0
	2018	*2	*1	..	0	0	0
	2019	*2	*1	..	0	0	0
Solomon Islands	2016	*3	*3	..	..	0	..
	2017	*3	*3	..	..	0	..
	2018	*3	*3	..	..	0	..
	2019	*3	*3	..	..	0	..
Tonga	2016	0	0	..	..	0	..
	2017	0	0	..	..	0	..
	2018	0	0	..	..	0	..
	2019	0	0	..	..	0	..
Tuvalu	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..
Vanuatu	2016	1	1	0	..	0	..
	2017	1	1	0	..	0	..
	2018	1	1	0	..	0	..
	2019	1	1	0	..	0	..
Wallis and Futuna Is.	2016	0	..	..	..	0	..
	2017	0	..	..	..	0	..
	2018	0	..	..	..	0	..
	2019	0	..	..	..	0	..

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
*3	..	0	..	..	*3	*164
*4	..	*1	..	..	*3	*168
*4	..	*1	..	..	*3	*166
*4	..	*1	..	..	*3	*169
98	161	*3	0	-3	181	22
100	160	*3	0	4	178	21
112	144	3	0	2	192	22
*118	*151	*3	0	*3	*202	*23
4	0	1	..	0	5	26
4	0	*1	..	0	5	27
4	0	*1	..	0	5	27
5	0	*1	..	0	6	29
*5	0	0	0	..	*7	*12
*5	0	0	0	..	*7	*12
*5	0	0	0	..	*8	*12
*5	..	0	0	..	*8	*11
2	..	0	0	0	2	18
2	..	0	0	0	2	18
2	..	0	0	0	2	18
2	..	0	0	0	2	22
0	..	0	..	..	0	*10
0	..	0	..	..	0	*10
0	..	0	..	..	0	*11
0	..	0	..	..	0	*11
3	0	0	0	0	3	11
3	0	0	0	..	3	10
3	0	0	0	..	3	12
3	0	0	0	..	3	11
0	..	0	..	..	0	29
0	..	0	..	..	0	29
0	..	0	..	..	0	31
0	..	0	..	..	0	32



### Total final consumption and its components

Petajoules and Gigajoules per capita

#### Table Notes

**Total final consumption** refers to all fuel and energy that is delivered to users for both their energy and non-energy uses which do not involve a transformation process.

**Non-energy use** consists of the use of energy products as raw materials for the manufacture of products outside the scope of energy statistics, as well as for direct uses that do not involve using the products as a source of energy, nor as a transformation input. Examples are lubrication, sealing, preservation, road surfacing, and use as a solvent.

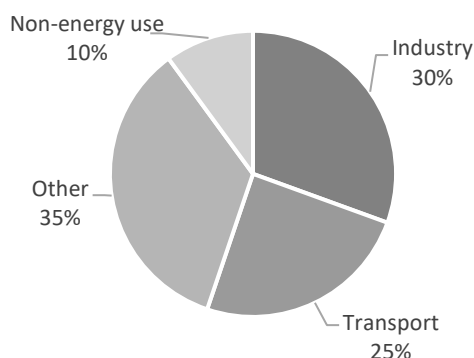
**Industry** refers to the use of energy products for energy purposes by economic units belonging to manufacturing, construction and non-fuel mining industries, namely the following: Iron and steel, Chemical and petrochemical, Non-ferrous metals, Non-metallic minerals; Transport equipment; Machinery; Mining and quarrying; Food and Tobacco; Paper, pulp and print; Wood and wood products (other than pulp and paper); Textile and leather; Construction; and Industries not elsewhere specified. It excludes the use of energy products for transport.

**Transport** refers to the consumption of fuels and electricity by any economic entity to transport goods or persons between points of departure and destination within the national territory. As such, it excludes international aviation and shipping, which are included under international marine and aviation bunkers respectively.

**Other** refers to energy consumed by consumers not classified under Industry. It includes Households, Commerce and public services, Agriculture, Forestry, Fishing, and Not elsewhere specified.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 9: World total final consumption by component, 2019**



**Figure 10: Total final consumption by region, 1990-2019**

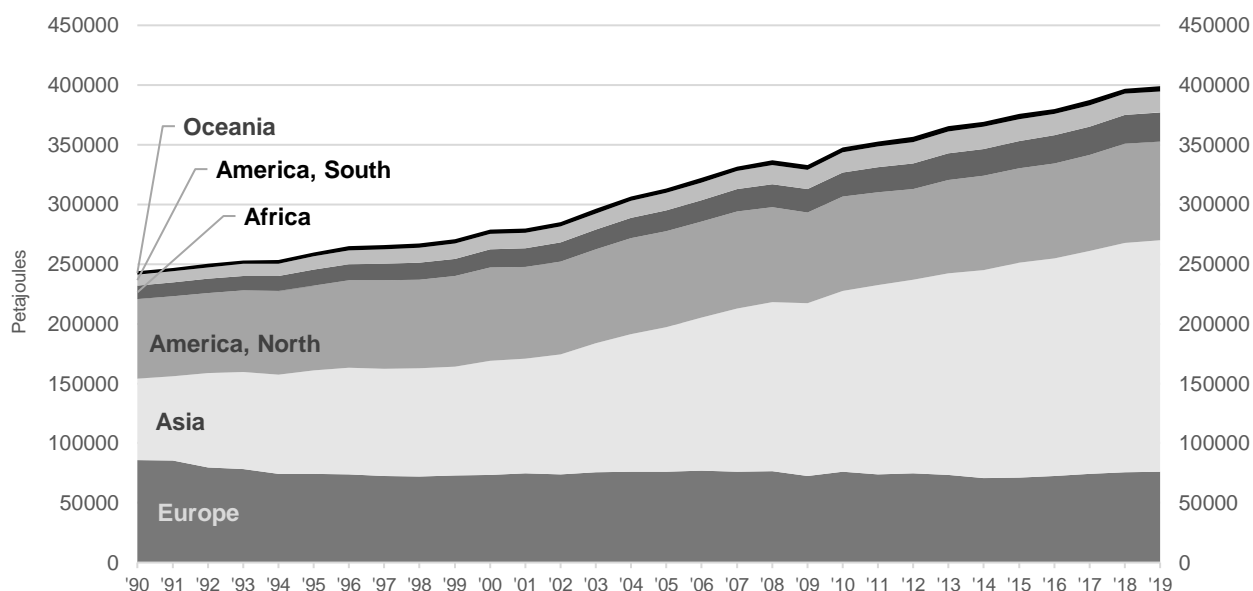


Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
<b>World</b>	<b>2016</b>	<b>380,051</b>	<b>36,674</b>	<b>115,855</b>	<b>96,757</b>	<b>130,765</b>	<b>51</b>
	<b>2017</b>	<b>387,487</b>	<b>37,891</b>	<b>117,433</b>	<b>96,496</b>	<b>135,667</b>	<b>51</b>
	<b>2018</b>	<b>397,018</b>	<b>38,894</b>	<b>121,913</b>	<b>97,809</b>	<b>138,403</b>	<b>52</b>
	<b>2019</b>	<b>399,016</b>	<b>40,139</b>	<b>121,888</b>	<b>98,358</b>	<b>138,630</b>	<b>52</b>
<b>Africa</b>	<b>2016</b>	<b>23,361</b>	<b>767</b>	<b>3,870</b>	<b>4,298</b>	<b>14,427</b>	<b>19</b>
	<b>2017</b>	<b>23,862</b>	<b>830</b>	<b>3,852</b>	<b>4,528</b>	<b>14,651</b>	<b>19</b>
	<b>2018</b>	<b>24,180</b>	<b>742</b>	<b>3,946</b>	<b>4,705</b>	<b>14,786</b>	<b>19</b>
	<b>2019</b>	<b>24,247</b>	<b>860</b>	<b>3,754</b>	<b>5,035</b>	<b>14,598</b>	<b>19</b>
Algeria	2016	1,571	165	249	632	525	39
	2017	1,591	133	270	626	563	38
	2018	1,776	209	284	634	649	42
	2019	1,776	169	303	612	692	41
Angola	2016	*401	4	56	*69	*272	*14
	2017	*389	4	38	*81	*265	*13
	2018	*392	3	40	*79	*269	*13
	2019	*415	4	45	*85	*281	*13
Benin	2016	167	..	6	81	*80	15
	2017	170	..	5	84	*82	15
	2018	183	..	3	94	*85	16
	2019	*183	0	7	82	*94	*16
Botswana	2016	58	1	13	31	14	27
	2017	59	1	12	32	14	27
	2018	60	1	11	33	14	26
	2019	60	1	12	33	14	26
Burkina Faso	2016	*153	0	*13	24	*116	*8
	2017	*161	0	*15	28	*117	*8
	2018	*168	0	*17	32	*119	*9
	2019	*176	0	*21	34	*121	*9
Burundi	2016	*56	*1	*1	*5	*49	*5
	2017	*56	*1	*1	*6	*49	*5
	2018	*58	0	*1	8	*49	*5
	2019	*58	0	*1	8	*49	*5
Cabo Verde	2016	*7	0	0	*4	*3	*13
	2017	*7	0	0	*4	*3	*13
	2018	*7	0	0	*4	*3	*13
	2019	*7	0	0	*4	*3	*13
Cameroon	2016	*311	3	16	45	*247	*13
	2017	*318	3	17	44	*254	*13
	2018	*326	3	18	43	*261	*13
	2019	*332	3	18	45	*266	*13
Central African Rep.	2016	*36	0	0	*3	*33	*8
	2017	*36	0	0	*3	*33	*8
	2018	*36	0	0	*3	*33	*8
	2019	*37	0	0	*3	*33	*8
Chad	2016	*77	0	*1	*15	*61	*5
	2017	*78	0	*1	14	*62	*5
	2018	*79	0	*1	15	*63	*5
	2019	*80	0	*2	15	*64	*5
Comoros	2016	*6	..	0	*2	*4	*8
	2017	7	..	0	*2	4	8
	2018	*7	..	0	*2	*4	*8
	2019	*7	..	0	*3	*4	*8

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Congo	2016	80	1	3	20	57	16
	2017	80	1	3	18	58	16
	2018	82	1	3	18	59	16
	2019	82	1	3	18	60	15
Côte d'Ivoire	2016	290	3	34	49	204	12
	2017	307	3	30	55	218	13
	2018	300	4	22	55	219	12
	2019	311	2	28	58	224	12
Dem. Rep. of the Congo	2016	*916	0	147	26	*742	*12
	2017	*1,053	0	167	29	*856	*13
	2018	739	0	27	29	683	9
	2019	*810	0	34	30	*746	*9
Djibouti	2016	*7	0	0	*2	*5	*8
	2017	*8	0	0	*2	*5	*8
	2018	*8	0	0	*2	*5	*8
	2019	*8	0	0	*2	*6	*8
Egypt	2016	2,879	284	838	535	1,223	30
	2017	2,867	282	806	538	1,242	30
	2018	2,852	113	975	527	1,238	29
	2019	2,620	296	777	736	810	26
Equatorial Guinea	2016	*112	0	*96	*8	*7	*92
	2017	*125	0	*109	9	*7	*99
	2018	*90	0	*75	8	*7	*69
	2019	*67	0	*51	9	*7	*50
Eritrea	2016	15	0	1	3	12	4
	2017	15	0	1	3	12	5
	2018	16	0	1	3	12	5
	2019	16	0	1	4	12	5
Eswatini	2016	*43	0	*19	6	*18	*39
	2017	39	0	15	9	15	35
	2018	40	0	16	8	16	35
	2019	42	0	17	9	16	37
Ethiopia	2016	*1,388	4	67	78	*1,239	*13
	2017	*1,422	4	69	88	*1,261	*13
	2018	*1,451	4	76	97	*1,275	*13
	2019	*1,485	4	82	105	*1,294	*13
Gabon	2016	*93	1	29	12	*52	*46
	2017	*85	1	*26	*8	*50	*41
	2018	*84	0	*25	*8	*50	*40
	2019	*85	0	*24	*10	*50	*39
Gambia	2016	*11	..	*2	*1	*8	*5
	2017	*11	..	*2	*1	*7	*5
	2018	*11	..	*2	*1	*8	*5
	2019	*11	..	*2	*1	*8	*5
Ghana	2016	295	*3	41	113	139	10
	2017	294	*3	43	103	146	10
	2018	320	*4	46	118	152	11
	2019	331	*4	48	127	152	11
Guinea	2016	*142	*1	*16	*19	*105	*12
	2017	*150	*2	*18	*23	*106	*12
	2018	*155	*2	*26	*20	*107	*12
	2019	*166	*2	*28	*28	*107	*13

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Guinea-Bissau	2016	*29	*1	0	*1	*26	*16
	2017	*29	*1	0	*1	*26	*16
	2018	*29	*1	0	*2	*27	*16
	2019	*30	*1	0	*2	*27	*15
Kenya	2016	*573	2	60	141	*371	*12
	2017	586	2	61	138	385	12
	2018	*553	3	75	128	*348	*11
	2019	540	3	56	147	334	10
Lesotho	2016	*44	0	*17	7	*19	*21
	2017	*46	0	*20	7	*19	*22
	2018	*44	0	*19	7	*18	*21
	2019	*44	0	*19	7	*18	*21
Liberia	2016	*86	0	*2	*11	*73	*19
	2017	*87	0	*2	*10	*75	*19
	2018	*88	0	*1	*8	*78	*18
	2019	*90	0	*1	*8	*80	*18
Libya	2016	484	78	76	255	74	75
	2017	467	77	72	242	76	71
	2018	464	72	68	236	88	69
	2019	456	66	63	238	88	67
Madagascar	2016	220	*3	24	18	176	9
	2017	234	*3	29	19	184	9
	2018	253	*3	30	*20	200	10
	2019	265	*2	32	*21	210	10
Malawi	2016	*65	0	*11	*11	*43	*4
	2017	*65	0	*10	*13	*42	*4
	2018	*68	0	*9	*15	*43	*4
	2019	*70	0	*10	*16	*43	*4
Mali	2016	*142	..	*7	*18	*117	*8
	2017	*144	..	*8	*19	*118	*8
	2018	*145	..	*8	*20	*117	*8
	2019	*148	..	*8	*20	*119	*8
Mauritania	2016	*45	*1	*8	*16	*21	*11
	2017	*55	*1	*12	*19	*22	*13
	2018	*61	*2	15	*22	*22	*14
	2019	*62	*3	15	*23	*22	*14
Mauritius	2016	40	1	8	21	10	32
	2017	41	1	8	22	10	33
	2018	42	1	8	23	10	33
	2019	43	1	8	23	11	34
Morocco	2016	653	21	125	232	275	18
	2017	683	21	141	240	282	19
	2018	690	19	141	247	284	19
	2019	713	23	139	258	293	19
Mozambique	2016	349	7	53	55	234	13
	2017	334	7	57	45	224	12
	2018	*337	7	59	45	*225	*11
	2019	*348	8	60	50	*231	*11
Namibia	2016	75	1	7	30	37	32
	2017	75	1	7	28	39	31
	2018	75	1	7	28	39	31
	2019	74	1	7	27	39	30

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Niger	2016	*82	0	4	11	*67	*4
	2017	*72	..	*5	11	*56	*3
	2018	*82	..	*3	*10	*69	*4
	2019	*90	..	*3	*15	*72	*4
Nigeria	2016	*5,365	65	*305	722	*4,272	*29
	2017	*5,429	57	*301	722	*4,349	*28
	2018	*5,524	61	*308	728	*4,427	*28
	2019	*5,661	58	*311	788	*4,504	*28
Rwanda	2016	*80	0	*7	*8	*65	*7
	2017	*81	0	*7	*8	*66	*7
	2018	*83	0	*7	*8	*68	*7
	2019	*91	0	*7	*14	*69	*7
Sao Tome and Principe	2016	*2	0	0	0	*1	*10
	2017	*2	0	0	0	*1	*10
	2018	*2	0	0	0	*1	*10
	2019	*2	0	0	0	*1	*10
Senegal	2016	126	..	25	40	61	8
	2017	117	..	*20	43	53	8
	2018	123	..	*24	36	63	8
	2019	129	..	*34	41	55	8
Seychelles	2016	*5	0	*1	*2	*3	*51
	2017	*5	0	*1	*2	2	*51
	2018	*5	0	*1	*3	2	*54
	2019	*5	0	*1	*2	2	*51
Sierra Leone	2016	*58	0	*2	10	*47	*8
	2017	*58	0	*2	8	*48	*8
	2018	*57	0	*2	9	*46	*7
	2019	*58	0	*1	9	*47	*7
Somalia	2016	*111	..	*2	2	*107	*8
	2017	*113	..	*2	*2	*110	*8
	2018	*116	..	*2	*2	*112	*8
	2019	*118	..	*2	*2	*115	*8
South Africa	2016	2,606	86	1,053	477	989	46
	2017	2,718	191	986	679	863	48
	2018	2,938	195	1,021	811	910	51
	2019	2,843	179	996	810	858	49
South Sudan	2016	23	..	0	13	9	2
	2017	19	..	1	10	8	2
	2018	19	..	1	10	8	2
	2019	21	..	2	11	8	2
St. Helena and Depend.	2016	0	..	..	0	0	*28
	2017	0	..	..	0	0	*16
	2018	0	..	..	0	0	*25
	2019	0	..	..	0	0	*25
Sudan	2016	*393	11	*69	*130	*183	*10
	2017	*409	*11	*70	*133	*195	*10
	2018	*407	*11	*72	*135	*189	*10
	2019	*413	*11	*73	*137	*192	*10
Togo	2016	82	0	5	9	68	11
	2017	80	..	4	12	64	10
	2018	85	..	4	14	67	11
	2019	88	..	4	15	69	11



Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Tunisia	2016	335	12	89	100	134	30
	2017	351	13	91	108	140	31
	2018	353	12	91	107	142	31
	2019	346	9	88	102	146	30
Uganda	2016	683	*1	74	41	568	17
	2017	713	0	83	43	586	17
	2018	745	*1	93	47	605	17
	2019	785	*1	110	50	624	18
United Rep. of Tanzania	2016	778	2	79	74	624	15
	2017	792	2	85	74	631	14
	2018	806	2	87	77	639	14
	2019	802	2	91	68	641	14
Zambia	2016	329	3	82	30	215	20
	2017	335	3	86	29	217	20
	2018	336	3	86	*26	222	19
	2019	342	3	79	29	231	19
Zimbabwe	2016	*383	1	28	31	*323	*27
	2017	*391	1	30	32	*328	*27
	2018	*410	1	32	41	*335	*28
	2019	*403	1	29	37	*336	*28
<b>America, North</b>	<b>2016</b>	<b>79,848</b>	<b>7,233</b>	<b>14,927</b>	<b>31,975</b>	<b>25,713</b>	<b>139</b>
	<b>2017</b>	<b>80,199</b>	<b>7,498</b>	<b>14,780</b>	<b>32,170</b>	<b>25,750</b>	<b>139</b>
	<b>2018</b>	<b>83,101</b>	<b>7,634</b>	<b>15,143</b>	<b>32,758</b>	<b>27,566</b>	<b>143</b>
	<b>2019</b>	<b>82,851</b>	<b>7,921</b>	<b>14,908</b>	<b>32,760</b>	<b>27,263</b>	<b>141</b>
Anguilla	2016	*2	..	..	*1	*1	*111
	2017	*1	..	..	*1	*1	*100
	2018	*2	..	..	*1	*1	*102
	2019	*2	..	..	*1	*1	*105
Antigua and Barbuda	2016	*4	0	0	*3	*1	*43
	2017	*4	0	0	*3	*1	*43
	2018	*4	0	0	*3	*1	*45
	2019	*4	0	0	*3	*1	*44
Aruba	2016	*7	0	..	*3	*3	*63
	2017	*7	0	..	*3	*3	*65
	2018	*7	0	..	*3	*3	*65
	2019	*7	0	..	*3	*4	*65
Bahamas	2016	*19	0	7	*4	*7	*49
	2017	*20	0	*7	*6	*7	*52
	2018	*28	0	*8	*10	*10	*72
	2019	*25	0	*8	*8	*9	*65
Barbados	2016	12	..	1	6	5	41
	2017	12	..	2	6	5	42
	2018	12	..	2	6	4	42
	2019	12	..	2	6	5	42
Belize	2016	*13	0	3	*7	4	*36
	2017	14	0	3	7	4	36
	2018	13	0	3	6	4	34
	2019	14	0	3	7	4	36
Bermuda	2016	*6	0	0	*2	*5	*99
	2017	5	0	0	*2	3	74
	2018	*6	0	0	*2	*4	*93
	2019	5	0	0	*1	4	78

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Bonaire, St Eustatius, Saba	2016	*1	0	0	0	0	*38
	2017	*1	0	0	0	0	*39
	2018	*1	0	0	0	0	*39
	2019	*1	0	0	0	0	*40
British Virgin Islands	2016	*2	..	0	*1	*1	*64
	2017	*1	..	0	*1	*1	*47
	2018	*1	..	0	*1	*1	*45
	2019	*1	..	0	*1	*1	*48
Canada	2016	8,296	976	1,913	2,706	2,701	228
	2017	8,440	881	1,940	2,790	2,828	230
	2018	8,691	879	1,955	2,890	2,967	234
	2019	8,626	801	1,972	2,883	2,971	231
Cayman Islands	2016	5	0	1	2	1	78
	2017	5	0	1	2	1	80
	2018	5	0	1	3	1	85
	2019	6	0	1	3	2	92
Costa Rica	2016	157	4	37	80	37	32
	2017	160	5	37	81	37	32
	2018	159	5	35	82	37	32
	2019	158	5	33	83	38	31
Cuba	2016	244	5	140	19	80	22
	2017	*243	4	*135	19	84	*21
	2018	240	5	137	16	82	21
	2019	247	3	143	16	85	22
Curaçao	2016	29	4	6	15	4	180
	2017	29	4	6	15	4	179
	2018	29	4	6	15	4	177
	2019	29	4	6	15	4	176
Dominica	2016	*2	..	0	*1	*1	*24
	2017	*2	..	0	*1	*1	*22
	2018	*2	..	0	*1	*1	*24
	2019	*2	..	0	*1	*1	*23
Dominican Republic	2016	249	19	61	96	74	24
	2017	247	13	65	95	73	23
	2018	254	14	61	103	75	24
	2019	283	17	76	109	81	26
El Salvador	2016	97	1	20	48	28	15
	2017	98	1	23	47	28	15
	2018	105	1	25	48	31	16
	2019	116	1	27	53	34	18
Greenland	2016	8	0	1	2	6	141
	2017	8	0	1	2	6	144
	2018	*7	0	*1	*2	*5	*126
	2019	*7	0	*1	*2	*5	*127
Grenada	2016	3	..	0	1	1	26
	2017	3	..	0	1	2	27
	2018	3	..	0	1	2	30
	2019	4	..	0	2	2	32
Guatemala	2016	398	1	38	105	255	24
	2017	*433	1	43	115	*273	*26
	2018	*441	3	39	119	*280	*26
	2019	*471	4	50	132	*286	*27

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Haiti	2016	137	1	12	20	105	13
	2017	139	0	12	20	106	13
	2018	141	1	12	20	108	13
	2019	143	0	13	20	110	13
Honduras	2016	198	0	46	60	92	21
	2017	193	0	52	64	76	20
	2018	172	0	30	64	78	18
	2019	179	1	31	68	80	18
Jamaica	2016	83	3	33	31	16	29
	2017	77	2	28	29	18	26
	2018	96	0	45	35	16	33
	2019	96	0	35	45	16	33
Mexico	2016	5,087	217	1,476	2,205	1,189	41
	2017	5,081	211	1,540	2,142	1,188	41
	2018	4,831	185	1,361	2,086	1,199	38
	2019	4,809	171	1,386	2,084	1,168	38
Montserrat	2016	0	0	0	0	0	*53
	2017	0	0	0	0	0	*48
	2018	0	0	0	0	0	*55
	2019	0	0	0	0	0	*45
Nicaragua	2016	*109	2	15	31	*61	*17
	2017	*111	1	15	33	*62	*17
	2018	*109	1	15	31	*63	*17
	2019	*109	2	14	30	*63	*17
Panama	2016	145	..	33	68	44	36
	2017	155	..	36	70	49	38
	2018	154	..	34	69	51	37
	2019	160	..	34	72	54	38
Puerto Rico	2016	62	..	8	..	54	19
	2017	49	..	6	..	43	15
	2018	59	..	8	..	51	19
	2019	58	..	7	..	51	20
Sint Maarten (Dutch part)	2016	*10	*2	*2	*5	1	*238
	2017	*9	*1	*2	*5	*1	*227
	2018	*9	*1	*2	*5	*1	*218
	2019	*9	*1	*2	*5	*1	*216
St. Kitts-Nevis	2016	*2	0	0	*1	*1	*38
	2017	*2	0	0	*1	*1	*37
	2018	*2	0	0	*1	*1	*38
	2019	*2	0	0	*1	*1	*38
St. Lucia	2016	5	0	0	3	2	29
	2017	6	0	0	3	2	31
	2018	6	0	0	3	2	31
	2019	6	0	0	3	2	31
St. Pierre-Miquelon	2016	*1	..	..	0	0	*99
	2017	*1	..	..	0	0	*101
	2018	*1	..	..	0	0	*88
	2019	*1	..	..	0	0	*104
St. Vincent-Grenadines	2016	*3	0	0	*2	1	*25
	2017	*2	0	0	*1	1	*22
	2018	*3	0	0	*2	1	*26
	2019	*3	0	0	*2	*1	*23

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Trinidad and Tobago	2016	486	372	54	42	19	353
	2017	495	380	54	42	19	358
	2018	490	385	52	35	18	352
	2019	517	407	53	38	18	370
Turks and Caicos Islands	2016	*3	0	..	*2	1	*82
	2017	*3	0	..	*2	1	*93
	2018	*3	0	..	*2	1	*87
	2019	*3	0	..	*2	*1	*86
United States	2016	63,961	5,627	11,019	26,404	20,911	198
	2017	64,140	5,990	10,769	26,560	20,821	197
	2018	67,012	6,148	11,308	27,093	22,462	205
	2019	66,735	6,501	11,011	27,062	22,161	203
United States Virgin Is.	2016	*2	..	*1	..	*1	*22
	2017	*2	..	*1	..	*1	*17
	2018	*2	..	*1	..	*1	*18
	2019	*2	..	*1	..	*1	*19
<b>America, South</b>	<b>2016</b>	<b>17,984</b>	<b>947</b>	<b>5,574</b>	<b>6,874</b>	<b>4,588</b>	<b>43</b>
	<b>2017</b>	<b>18,078</b>	<b>925</b>	<b>5,602</b>	<b>6,968</b>	<b>4,585</b>	<b>43</b>
	<b>2018</b>	<b>17,766</b>	<b>808</b>	<b>5,502</b>	<b>6,832</b>	<b>4,623</b>	<b>42</b>
	<b>2019</b>	<b>17,728</b>	<b>867</b>	<b>5,323</b>	<b>6,960</b>	<b>4,578</b>	<b>42</b>
Argentina	2016	2,421	125	533	815	949	56
	2017	2,439	136	525	857	920	56
	2018	2,348	130	529	800	889	53
	2019	2,329	132	540	794	863	52
Bolivia (Plur. State of)	2016	259	2	57	142	58	23
	2017	269	2	57	151	58	24
	2018	277	2	57	158	60	24
	2019	288	13	57	159	59	25
Brazil	2016	9,716	592	3,380	3,710	2,035	47
	2017	9,912	602	3,424	3,738	2,149	48
	2018	9,736	560	3,280	3,687	2,209	46
	2019	9,823	564	3,202	3,808	2,250	47
Chile	2016	1,108	24	445	367	272	61
	2017	1,121	23	421	380	296	61
	2018	1,172	31	442	393	306	63
	2019	1,180	36	441	400	304	62
Colombia	2016	1,370	81	319	532	437	28
	2017	1,281	66	317	527	371	26
	2018	1,302	41	339	545	377	26
	2019	1,380	81	350	573	376	27
Ecuador	2016	470	..	68	247	154	28
	2017	490	..	72	262	156	29
	2018	495	..	83	251	160	29
	2019	499	..	80	255	163	29
Falkland Is. (Malvinas)	2016	0	..	0	0	0	167
	2017	0	..	0	0	0	150
	2018	0	..	0	0	0	149
	2019	0	..	0	0	0	147
Guyana	2016	29	0	7	11	11	38
	2017	29	0	7	10	11	37
	2018	29	0	6	11	12	37
	2019	31	2	5	12	13	40

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Paraguay	2016	258	2	75	101	81	38
	2017	273	2	75	113	83	40
	2018	283	2	78	120	83	41
	2019	280	2	76	118	83	40
Peru	2016	785	11	223	340	211	25
	2017	804	13	225	361	205	26
	2018	805	12	227	363	203	25
	2019	833	12	243	374	204	26
Suriname	2016	23	0	5	7	10	40
	2017	24	0	5	9	10	42
	2018	24	0	5	9	10	42
	2019	25	0	5	9	11	43
Uruguay	2016	200	3	83	54	60	58
	2017	203	4	85	56	59	59
	2018	203	5	86	51	61	59
	2019	205	5	87	55	58	59
Venezuela (Bolivar. Rep.)	2016	1,344	107	379	549	309	45
	2017	1,233	77	387	503	266	42
	2018	1,092	24	371	444	254	38
	2019	855	21	237	404	194	30
<b>Asia</b>	<b>2016</b>	<b>182,109</b>	<b>20,408</b>	<b>72,406</b>	<b>33,065</b>	<b>56,231</b>	<b>41</b>
	<b>2017</b>	<b>186,978</b>	<b>20,703</b>	<b>73,913</b>	<b>31,897</b>	<b>60,465</b>	<b>41</b>
	<b>2018</b>	<b>191,919</b>	<b>21,295</b>	<b>77,959</b>	<b>32,258</b>	<b>60,406</b>	<b>42</b>
	<b>2019</b>	<b>193,789</b>	<b>22,209</b>	<b>77,743</b>	<b>32,279</b>	<b>61,559</b>	<b>42</b>
Afghanistan	2016	*155	*7	*38	*46	*65	*4
	2017	*163	*5	*43	*54	*60	*5
	2018	*175	*5	*48	61	*62	*5
	2019	*180	*5	*48	62	*64	*5
Armenia	2016	92	1	13	26	52	31
	2017	97	1	14	27	54	33
	2018	94	2	13	30	49	32
	2019	105	*2	13	34	56	35
Azerbaijan	2016	378	35	61	92	190	39
	2017	376	45	43	109	178	38
	2018	399	52	42	120	185	40
	2019	454	55	64	119	216	45
Bahrain	2016	262	69	89	51	53	184
	2017	262	70	85	53	53	175
	2018	274	73	92	55	56	175
	2019	290	76	98	53	63	177
Bangladesh	2016	1,422	56	344	144	879	9
	2017	1,505	54	378	159	914	9
	2018	1,540	47	389	174	931	10
	2019	1,624	62	462	168	931	10
Bhutan	2016	*65	*1	9	6	*49	*88
	2017	*67	*1	10	7	*50	*90
	2018	*69	*1	11	7	*49	*91
	2019	*69	*1	10	7	*51	*91
Brunei Darussalam	2016	55	19	5	19	13	132
	2017	75	20	23	19	13	177
	2018	77	12	32	19	14	180
	2019	65	25	8	18	13	150

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Cambodia	2016	237	1	54	63	118	15
	2017	248	1	59	68	120	15
	2018	266	1	65	74	127	16
	2019	285	1	74	80	131	17
China	2016	77,720	8,170	38,425	10,065	21,061	55
	2017	78,934	8,043	38,396	10,586	21,909	56
	2018	82,463	8,542	40,559	10,955	22,407	58
	2019	82,666	9,227	39,869	10,889	22,681	58
China, Hong Kong SAR	2016	328	1	*30	*88	210	45
	2017	340	2	*32	*96	210	47
	2018	336	2	*32	*94	209	46
	2019	340	1	*32	*96	211	46
China, Macao SAR	2016	37	2	2	6	27	60
	2017	37	2	2	6	26	59
	2018	34	2	2	6	23	53
	2019	33	2	2	6	23	52
Cyprus	2016	64	2	9	28	26	55
	2017	67	2	10	29	27	57
	2018	66	2	10	29	26	56
	2019	68	2	10	29	28	57
Georgia	2016	185	13	28	64	79	46
	2017	188	14	32	58	83	47
	2018	186	15	33	57	81	46
	2019	194	18	31	59	85	48
India	2016	26,758	1,479	11,951	*4,278	9,050	20
	2017	28,000	1,388	12,719	1,997	11,896	21
	2018	28,091	1,420	12,994	2,481	11,196	21
	2019	28,465	*1,567	13,195	2,180	11,523	21
Indonesia	2016	5,941	403	1,562	1,337	2,639	23
	2017	6,005	401	1,609	1,368	2,626	23
	2018	6,665	416	2,636	1,195	2,419	25
	2019	7,002	519	2,848	1,093	2,542	26
Iran (Islamic Rep. of)	2016	7,936	1,076	1,854	1,869	3,137	100
	2017	8,369	1,259	1,930	2,129	3,051	104
	2018	8,430	1,299	1,996	2,026	3,108	103
	2019	8,473	1,285	2,021	2,013	3,154	102
Iraq	2016	775	15	149	352	259	21
	2017	843	26	156	400	261	22
	2018	932	27	176	467	262	24
	2019	966	28	178	478	283	25
Israel	2016	623	73	112	243	195	77
	2017	649	79	121	249	200	79
	2018	644	79	117	250	198	77
	2019	661	73	123	252	213	78
Japan	2016	12,126	1,450	3,492	3,018	4,166	95
	2017	12,294	1,513	3,515	2,994	4,272	96
	2018	11,987	1,415	3,530	2,958	4,084	94
	2019	11,749	1,404	3,442	2,906	3,998	93
Jordan	2016	267	11	41	130	85	28
	2017	283	10	41	137	95	29
	2018	279	6	39	138	95	28
	2019	276	3	31	145	97	27

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Kazakhstan	2016	1,733	*45	868	*229	591	97
	2017	1,858	46	943	242	628	103
	2018	1,748	*50	638	264	795	95
	2019	1,711	*54	540	248	869	92
Korea, Dem.Ppl's.Rep.	2016	328	..	197	20	112	13
	2017	584	7	355	56	165	23
	2018	549	7	331	53	158	21
	2019	599	8	364	58	169	23
Korea, Republic of	2016	7,557	2,139	2,025	1,464	1,929	148
	2017	7,743	2,250	2,045	1,495	1,954	152
	2018	7,701	2,176	2,086	1,475	1,964	150
	2019	7,688	2,254	1,993	1,538	1,903	150
Kuwait	2016	682	127	197	198	159	172
	2017	715	124	213	210	168	176
	2018	700	128	180	222	171	169
	2019	703	112	195	224	172	167
Kyrgyzstan	2016	146	1	18	48	79	24
	2017	149	0	18	48	82	24
	2018	176	*8	21	49	98	28
	2019	144	*1	18	38	88	23
Lao People's Dem. Rep.	2016	*124	0	*16	41	*66	*18
	2017	*124	0	*17	42	*65	*18
	2018	*126	0	*18	43	*65	*18
	2019	135	0	22	*43	69	19
Lebanon	2016	*227	4	*31	*93	*99	*34
	2017	*242	4	*34	*97	*108	*35
	2018	*224	4	*33	*90	*97	*33
	2019	*224	2	*31	*95	97	*33
Malaysia	2016	2,290	369	648	894	378	75
	2017	2,493	506	703	868	415	80
	2018	2,554	528	764	871	391	81
	2019	2,727	587	833	904	403	85
Maldives	2016	*15	0	*1	*12	*3	*33
	2017	*16	0	*1	*12	*3	*32
	2018	*19	0	*1	*14	*3	*36
	2019	*21	0	*1	*16	*4	*40
Mongolia	2016	221	..	25	19	178	72
	2017	372	..	26	20	326	120
	2018	419	..	29	21	368	132
	2019	446	..	32	26	387	138
Myanmar	2016	*717	17	81	82	*536	*14
	2017	*718	23	74	64	*557	*13
	2018	*862	11	142	118	*591	*16
	2019	*845	21	151	90	*583	*16
Nepal	2016	*539	2	50	50	*437	*20
	2017	*571	3	56	63	*450	*21
	2018	*600	5	66	69	*460	*21
	2019	*590	8	57	60	*465	*21
Oman	2016	851	101	263	174	312	190
	2017	878	117	290	173	299	188
	2018	984	157	254	170	403	204
	2019	1,000	151	258	168	423	201

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Other Asia	2016	2,952	905	1,006	529	513	125
	2017	2,936	893	1,006	524	513	124
	2018	2,966	931	1,020	509	506	125
	2019	2,870	850	1,001	513	506	121
Pakistan	2016	2,973	*188	900	702	1,184	15
	2017	3,158	221	972	778	1,187	15
	2018	3,203	217	1,042	750	1,194	15
	2019	3,148	217	979	725	1,226	15
Philippines	2016	1,423	55	311	500	556	14
	2017	1,506	68	331	518	590	14
	2018	1,518	60	314	536	609	14
	2019	1,543	48	305	556	634	14
Qatar	2016	809	199	331	181	97	305
	2017	814	198	321	185	110	299
	2018	800	200	324	162	*114	288
	2019	854	201	365	168	*120	302
Saudi Arabia	2016	6,590	1,324	1,608	1,942	*1,717	203
	2017	6,291	1,280	1,596	1,737	1,679	190
	2018	6,639	1,472	2,047	1,409	*1,712	197
	2019	*6,526	*1,305	*1,605	1,894	*1,723	*190
Singapore	2016	764	301	270	91	103	135
	2017	1,043	528	312	100	103	183
	2018	834	320	304	105	104	145
	2019	803	286	305	104	108	138
Sri Lanka	2016	393	*4	96	148	145	19
	2017	382	*1	86	150	145	18
	2018	377	3	91	135	148	18
	2019	*391	3	*95	138	*155	*18
State of Palestine	2016	69	1	3	32	32	15
	2017	68	1	4	32	31	14
	2018	66	2	4	30	31	14
	2019	70	1	4	30	35	14
Syrian Arab Republic	2016	252	28	54	85	84	14
	2017	273	30	58	95	91	16
	2018	260	29	56	89	87	15
	2019	230	26	50	77	78	13
Tajikistan	2016	165	1	26	18	120	19
	2017	164	1	31	16	116	18
	2018	172	1	28	17	126	19
	2019	180	1	33	19	127	19
Thailand	2016	4,057	948	1,343	1,020	747	59
	2017	4,134	945	1,346	1,110	733	60
	2018	4,194	1,017	1,322	1,117	738	60
	2019	4,283	976	1,404	1,145	758	62
Timor-Leste	2016	7	0	..	5	2	6
	2017	6	0	..	4	2	5
	2018	7	0	..	4	2	5
	2019	7	1	..	4	2	5
Turkey	2016	4,040	337	1,065	1,126	1,512	51
	2017	4,338	206	1,312	1,177	1,643	53
	2018	4,243	197	1,318	1,187	1,541	52
	2019	4,301	223	1,234	1,190	1,654	52



Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Turkmenistan	2016	755	..	58	182	515	133
	2017	757	..	58	182	517	131
	2018	759	..	58	182	519	130
	2019	777	..	58	182	537	131
United Arab Emirates	2016	*2,624	*350	*1,406	485	*383	*280
	2017	*2,311	*279	*1,120	528	384	*244
	2018	*2,291	*286	*1,062	529	414	*238
	2019	2,605	*480	1,211	502	412	267
Uzbekistan	2016	1,229	*9	*415	199	606	39
	2017	1,235	*13	*393	213	616	39
	2018	1,241	*14	272	238	717	38
	2019	1,280	*18	301	250	711	39
Viet Nam	2016	2,059	72	813	535	639	22
	2017	2,210	22	963	578	648	23
	2018	2,593	54	1,307	566	665	27
	2019	3,017	22	1,721	536	737	31
Yemen	2016	93	0	12	38	42	3
	2017	88	0	13	37	38	3
	2018	90	0	14	39	37	3
	2019	105	1	18	47	39	4
<b>Europe</b>	<b>2016</b>	<b>72,504</b>	<b>7,008</b>	<b>17,916</b>	<b>18,899</b>	<b>28,680</b>	<b>97</b>
	<b>2017</b>	<b>74,093</b>	<b>7,643</b>	<b>18,117</b>	<b>19,248</b>	<b>29,085</b>	<b>99</b>
	<b>2018</b>	<b>75,736</b>	<b>8,126</b>	<b>18,180</b>	<b>19,546</b>	<b>29,884</b>	<b>101</b>
	<b>2019</b>	<b>76,081</b>	<b>7,991</b>	<b>18,985</b>	<b>19,608</b>	<b>29,496</b>	<b>102</b>
Albania	2016	81	6	12	32	32	28
	2017	89	3	15	35	35	31
	2018	82	2	14	30	36	28
	2019	81	2	13	30	36	28
Andorra	2016	9	0	0	5	4	112
	2017	9	0	0	5	4	112
	2018	9	0	0	5	4	117
	2019	9	0	0	5	4	114
Austria	2016	1,199	76	348	372	404	137
	2017	1,208	68	350	377	413	137
	2018	1,194	76	346	381	391	134
	2019	1,211	86	341	384	400	135
Belarus	2016	772	106	166	160	340	82
	2017	791	105	173	166	347	84
	2018	831	124	180	175	352	88
	2019	799	112	177	173	336	85
Belgium	2016	1,745	319	470	384	571	154
	2017	1,723	315	463	379	566	151
	2018	1,746	329	475	380	562	152
	2019	1,697	305	456	378	558	147
Bosnia and Herzegovina	2016	152	3	32	50	67	45
	2017	149	3	35	53	60	45
	2018	181	4	36	52	89	54
	2019	180	5	30	56	89	54
Bulgaria	2016	419	21	112	139	147	59
	2017	426	20	116	141	149	60
	2018	427	21	114	143	149	61
	2019	423	19	112	145	147	60

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Croatia	2016	296	23	44	86	143	70
	2017	308	23	48	92	144	74
	2018	301	21	49	90	141	72
	2019	306	25	49	94	138	74
Czechia	2016	1,056	70	268	272	446	99
	2017	1,136	119	280	281	456	107
	2018	1,126	120	279	283	444	106
	2019	1,130	121	276	288	446	106
Denmark	2016	583	10	91	183	299	102
	2017	584	10	94	184	296	102
	2018	584	10	96	186	291	101
	2019	571	8	93	183	285	99
Estonia	2016	123	4	20	33	65	94
	2017	124	5	21	34	65	94
	2018	127	5	21	35	66	96
	2019	125	5	20	36	64	94
Faeroe Islands	2016	8	0	1	1	6	172
	2017	9	0	1	1	7	196
	2018	10	0	1	1	7	198
	2019	9	0	1	2	7	195
Finland	2016	1,075	62	446	177	389	196
	2017	1,077	61	453	179	384	196
	2018	1,096	61	472	181	382	198
	2019	1,078	61	462	178	377	195
France	2016	6,590	566	1,248	1,962	2,813	99
	2017	6,549	597	1,184	1,977	2,792	98
	2018	6,400	563	1,183	1,938	2,716	95
	2019	6,345	569	1,154	1,939	2,684	94
Germany	2016	9,447	908	2,357	2,432	3,750	115
	2017	9,562	971	2,388	2,469	3,735	116
	2018	9,401	927	2,409	2,400	3,665	113
	2019	9,348	923	2,331	2,431	3,663	112
Gibraltar	2016	8	1	..	6	1	238
	2017	9	1	..	7	1	253
	2018	9	1	..	7	1	275
	2019	10	1	..	8	1	293
Greece	2016	695	25	129	250	290	65
	2017	687	37	116	247	288	65
	2018	664	38	115	250	260	63
	2019	675	39	109	257	270	64
Guernsey	2016	1	..	..	..	1	20
	2017	1	..	..	..	1	21
	2018	1	..	..	..	1	20
	2019	1	..	..	..	1	20
Hungary	2016	807	81	169	181	377	83
	2017	845	95	180	191	379	87
	2018	845	97	186	204	359	87
	2019	848	92	188	215	352	88
Iceland	2016	123	5	56	14	48	370
	2017	125	5	58	15	47	373
	2018	133	7	59	15	52	395
	2019	129	6	55	15	53	379

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Ireland	2016	461	12	87	171	190	98
	2017	461	11	90	170	189	97
	2018	481	10	96	172	203	100
	2019	479	11	96	173	199	98
Isle of Man	2016	2	..	1	..	2	28
	2017	2	..	0	..	2	28
	2018	2	..	0	..	2	27
	2019	2	..	1	..	2	28
Italy	2016	4,962	264	1,054	1,521	2,124	82
	2017	5,006	332	1,048	1,466	2,160	82
	2018	5,008	300	1,038	1,512	2,158	83
	2019	4,959	296	1,049	1,524	2,089	82
Jersey	2016	6	..	*1	2	3	59
	2017	6	..	*1	2	3	57
	2018	6	..	*2	2	3	59
	2019	6	..	*2	2	3	56
Kosovo	2016	62	2	12	16	32	35
	2017	66	2	13	17	33	37
	2018	64	2	12	18	32	36
	2019	66	2	13	18	33	37
Latvia	2016	160	4	31	44	80	81
	2017	167	4	33	46	84	86
	2018	174	4	38	47	85	90
	2019	169	4	36	47	83	89
Liechtenstein	2016	3	..	..	..	3	79
	2017	3	..	..	..	3	80
	2018	3	..	..	..	3	80
	2019	3	..	..	..	3	80
Lithuania	2016	254	44	41	79	90	88
	2017	271	51	45	83	92	95
	2018	276	47	46	88	94	99
	2019	279	50	47	91	91	101
Luxembourg	2016	151	2	28	82	40	261
	2017	154	1	26	84	43	261
	2018	160	2	27	90	42	265
	2019	163	2	26	93	43	264
Malta	2016	20	0	2	8	9	45
	2017	21	0	2	9	9	47
	2018	22	0	2	10	9	49
	2019	23	1	2	11	10	53
Montenegro	2016	30	1	5	9	15	48
	2017	32	2	6	10	15	51
	2018	32	2	6	11	14	52
	2019	34	2	6	11	15	54
Netherlands	2016	2,430	539	594	444	853	143
	2017	2,476	573	598	457	849	145
	2018	2,456	539	590	468	859	144
	2019	2,398	506	582	468	843	140
North Macedonia	2016	85	6	15	29	35	41
	2017	85	3	14	30	37	41
	2018	82	2	16	31	34	40
	2019	86	2	17	33	33	41

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Norway	2016	867	97	247	213	310	165
	2017	866	104	253	199	311	164
	2018	877	105	256	197	319	164
	2019	869	107	256	191	315	162
Poland	2016	2,959	241	620	791	1,307	78
	2017	3,142	256	669	913	1,305	83
	2018	3,172	241	690	953	1,289	84
	2019	3,142	238	696	973	1,236	83
Portugal	2016	683	49	184	241	208	66
	2017	694	51	190	245	208	67
	2018	683	31	191	247	214	67
	2019	709	49	193	253	213	69
Republic of Moldova	2016	105	1	8	29	66	26
	2017	110	2	9	29	71	27
	2018	118	3	11	30	75	29
	2019	112	2	10	30	70	28
Romania	2016	953	51	243	243	416	48
	2017	992	47	251	261	433	50
	2018	1,013	45	260	267	440	52
	2019	1,029	51	262	278	438	53
Russian Federation	2016	18,854	2,558	5,584	3,970	6,742	130
	2017	19,825	2,908	5,610	4,034	7,273	136
	2018	21,464	3,539	5,487	4,254	8,184	147
	2019	22,293	3,459	6,518	4,177	8,139	153
Serbia	2016	372	35	86	85	165	53
	2017	383	36	93	88	166	54
	2018	380	31	97	90	162	54
	2019	377	29	89	97	161	54
Slovakia	2016	434	41	142	104	147	80
	2017	467	46	148	119	154	86
	2018	476	53	158	118	147	87
	2019	477	42	149	120	166	87
Slovenia	2016	210	6	52	80	73	101
	2017	213	6	54	82	71	103
	2018	214	7	55	84	68	103
	2019	210	7	55	82	66	101
Spain	2016	3,465	208	754	1,291	1,212	74
	2017	3,543	206	816	1,338	1,183	76
	2018	3,633	218	838	1,374	1,202	78
	2019	3,612	224	827	1,391	1,170	77
Sweden	2016	1,394	91	467	309	527	142
	2017	1,401	104	468	310	519	141
	2018	1,375	91	467	303	513	138
	2019	1,365	96	467	298	504	136
Switzerland	2016	794	19	150	242	384	95
	2017	785	19	150	239	376	93
	2018	764	19	145	242	358	90
	2019	764	18	144	242	360	89
Ukraine	2016	2,187	121	634	394	1,038	49
	2017	2,122	104	639	416	963	48
	2018	2,195	111	699	415	970	50
	2019	2,111	115	682	433	880	48

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
United Kingdom	2016	5,413	328	903	1,763	2,419	82
	2017	5,388	337	916	1,768	2,366	81
	2018	5,441	320	917	1,765	2,439	81
	2019	5,369	300	892	1,755	2,422	80
<b>Oceania</b>	<b>2016</b>	<b>4,244</b>	<b>312</b>	<b>1,162</b>	<b>1,645</b>	<b>1,126</b>	<b>105</b>
	<b>2017</b>	<b>4,277</b>	<b>293</b>	<b>1,168</b>	<b>1,685</b>	<b>1,132</b>	<b>104</b>
	<b>2018</b>	<b>4,317</b>	<b>289</b>	<b>1,182</b>	<b>1,709</b>	<b>1,137</b>	<b>104</b>
	<b>2019</b>	<b>4,321</b>	<b>292</b>	<b>1,176</b>	<b>1,716</b>	<b>1,138</b>	<b>103</b>
American Samoa	2016	*3	0	*1	*1	*1	*55
	2017	*3	0	*1	*1	*1	*57
	2018	*3	0	*1	*1	*1	*57
	2019	*3	0	*1	*1	*1	*57
Australia	2016	3,397	236	912	1,375	874	140
	2017	3,419	223	916	1,399	880	139
	2018	3,465	227	931	1,419	888	139
	2019	3,433	219	911	1,422	882	136
Cook Islands	2016	*1	..	..	*1	0	*49
	2017	*1	..	..	*1	0	*53
	2018	*1	..	..	*1	0	*53
	2019	*1	..	..	*1	0	*55
Fiji	2016	*20	0	*7	*9	4	*22
	2017	*22	0	*8	*9	4	*25
	2018	*23	0	*8	*10	4	*26
	2019	*23	0	*8	*10	4	*26
French Polynesia	2016	10	0	..	7	3	38
	2017	10	0	..	7	3	37
	2018	10	0	..	7	3	37
	2019	10	0	..	7	3	37
Guam	2016	6	..	..	..	6	35
	2017	6	..	..	..	6	35
	2018	6	..	..	..	6	34
	2019	6	..	..	..	6	34
Kiribati	2016	*1	0	0	0	*1	*10
	2017	*1	0	0	0	*1	*12
	2018	*1	0	0	0	*1	*12
	2019	*1	0	0	0	*1	*11
Marshall Islands	2016	*2	..	0	*1	0	*29
	2017	*2	..	0	*1	0	*29
	2018	*2	..	0	*1	0	*29
	2019	*2	..	0	*1	0	*30
Micronesia (Fed. States of)	2016	*1	0	0	*1	0	*13
	2017	*1	0	0	*1	0	*13
	2018	*1	0	0	*1	0	*13
	2019	*1	0	0	*1	0	*13
Nauru	2016	0	0	0	0	0	*44
	2017	*1	0	0	0	0	*48
	2018	*1	0	0	0	0	*47
	2019	*1	0	0	0	0	*47
New Caledonia	2016	41	7	21	9	3	148
	2017	42	7	22	9	3	151
	2018	43	6	23	9	4	152
	2019	42	6	23	9	4	148

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
New Zealand	2016	608	68	187	206	148	131
	2017	614	62	186	219	147	130
	2018	602	55	180	224	143	127
	2019	631	66	192	226	146	132
Niue	2016	0	..	0	0	0	*47
	2017	0	..	0	0	0	*46
	2018	0	..	0	0	0	*47
	2019	0	..	0	0	0	*49
Northern Mariana Islands	2016	*3	..	..	*2	*1	*61
	2017	*4	..	..	*3	*1	*71
	2018	*4	..	..	*2	*1	*65
	2019	*4	..	..	*2	*1	*65
Palau	2016	*2	0	0	*2	0	*120
	2017	*2	0	0	*2	0	*124
	2018	2	0	0	2	0	123
	2019	*2	0	0	*2	0	*125
Papua New Guinea	2016	*133	..	33	24	*75	*16
	2017	*134	..	34	24	*76	*16
	2018	*137	..	38	23	*76	*16
	2019	*144	..	*40	*24	*80	*16
Samoa	2016	4	0	0	2	2	23
	2017	*5	0	0	*2	*2	*24
	2018	*5	0	0	*2	*2	*24
	2019	*5	0	0	*2	*2	*26
Solomon Islands	2016	*7	0	0	*3	*4	*11
	2017	*7	0	0	*3	*4	*11
	2018	*7	0	0	*3	*4	*10
	2019	*7	0	0	*3	*4	*10
Tonga	2016	*1	0	..	*1	0	*14
	2017	*2	0	..	*1	0	*15
	2018	*1	0	..	*1	0	*14
	2019	*2	0	..	*2	0	*18
Tuvalu	2016	0	..	..	0	0	6
	2017	0	..	..	0	0	6
	2018	0	..	..	0	0	*7
	2019	0	..	..	0	0	*7
Vanuatu	2016	*3	0	0	*1	*1	*10
	2017	*2	0	0	*1	*1	*9
	2018	*3	0	0	*2	*1	*10
	2019	*3	0	0	*2	*1	*10
Wallis and Futuna Is.	2016	0	..	..	0	0	*19
	2017	0	..	..	0	0	*19
	2018	0	..	..	0	0	*20
	2019	0	..	..	0	0	*21



## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

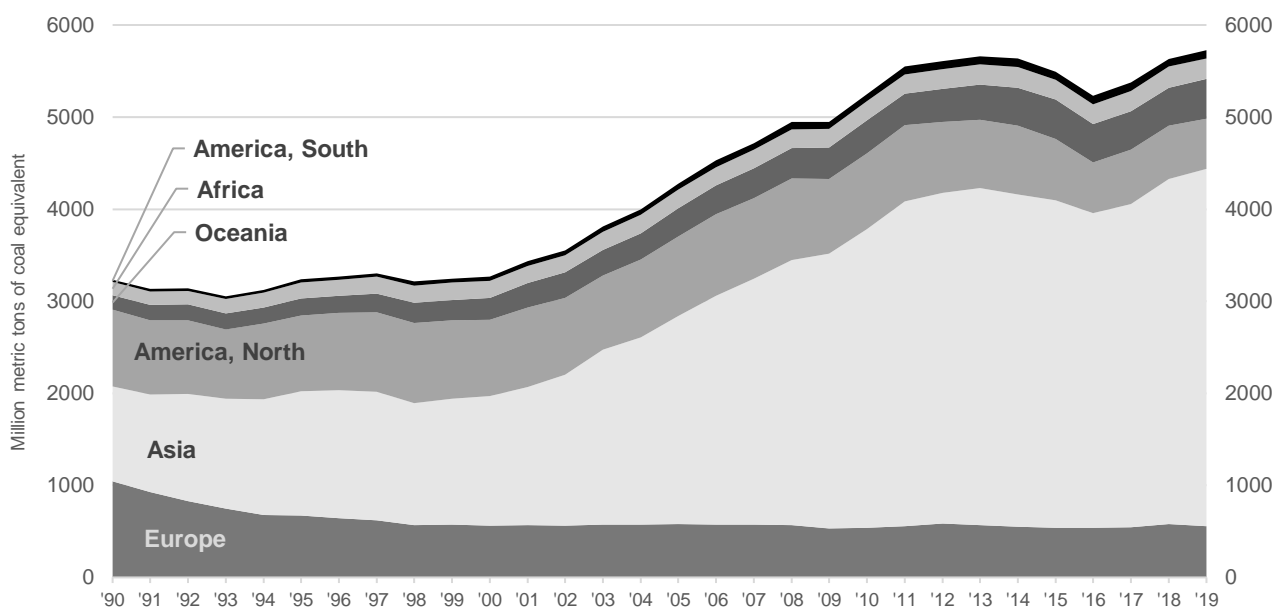
### Table Notes

**Production** includes hard coal, brown coal, oil shale and peat. Production from other sources of hard coal and brown coal is also included, representing recovered slurries, middlings, and other low-grade coal products which cannot be classified according to type of coal and which includes coal recovered from waste piles and other waste receptacles.

**Imports, Exports and Changes in stocks** refer to hard coal, brown coal, oil shale, peat, coke oven coke, gas coke, coal tar, patent fuel, brown coal briquettes, peat products and other coal products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

Figure 11: Production of coal by region, 1990-2019





**Table 4**

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>5,228,977</b>	<b>1,100,146</b>	<b>1,176,768</b>	<b>-168,624</b>	<b>5,320,979</b>	<b>713</b>
	<b>2017</b>	<b>5,374,118</b>	<b>1,162,597</b>	<b>1,247,047</b>	<b>-79,450</b>	<b>5,369,119</b>	<b>711</b>
	<b>2018</b>	<b>5,630,643</b>	<b>1,196,949</b>	<b>1,321,862</b>	<b>8,822</b>	<b>5,496,908</b>	<b>720</b>
	<b>2019</b>	<b>5,726,211</b>	<b>1,210,234</b>	<b>1,288,690</b>	<b>108,049</b>	<b>5,539,706</b>	<b>718</b>
<b>Africa</b>	<b>2016</b>	<b>214,357</b>	<b>12,379</b>	<b>70,349</b>	<b>-3,107</b>	<b>159,493</b>	<b>132</b>
	<b>2017</b>	<b>220,906</b>	<b>16,017</b>	<b>83,830</b>	<b>-4,152</b>	<b>157,245</b>	<b>126</b>
	<b>2018</b>	<b>228,028</b>	<b>21,156</b>	<b>90,832</b>	<b>1,874</b>	<b>156,478</b>	<b>123</b>
	<b>2019</b>	<b>224,670</b>	<b>21,652</b>	<b>74,095</b>	<b>458</b>	<b>171,769</b>	<b>131</b>
Algeria	2016	..	75	..	75	0	0
	2017	..	290	..	-30	319	8
	2018	..	493	..	-42	535	13
	2019	..	428	..	-12	440	10
Benin	2016	..	70	..	..	70	6
	2017	..	67	..	..	67	6
	2018	..	105	..	105	0	0
	2019	..	90	..	..	90	8
Botswana	2016	1,508	..	165	*-3	1,346	623
	2017	1,787	..	184	..	1,603	727
	2018	1,999	..	255	..	1,743	773
	2019	1,700	..	245	..	1,455	631
Burundi	2016	5	9	..	..	14	1
	2017	7	1	..	..	8	1
	2018	6	0	..	..	6	1
	2019	8	9	..	..	17	1
Egypt	2016	..	668	*61	0	607	6
	2017	..	2,595	*143	..	2,452	25
	2018	..	4,863	..	-39	4,902	50
	2019	..	3,972	156	..	3,816	38
Eswatini	2016	139	72	*139	*-10	82	73
	2017	160	54	160	..	54	48
	2018	114	54	114	..	54	47
	2019	103	67	103	..	67	58
Ethiopia	2016	2	463	..	..	465	4
	2017	2	511	..	..	512	5
	2018	2	368	..	..	370	3
	2019	2	398	..	..	400	4
Kenya	2016	..	432	..	..	432	9
	2017	..	408	..	..	408	8
	2018	..	610	..	..	610	12
	2019	..	539	..	..	539	10
Lesotho	2016	..	*519	..	..	*519	*250
	2017	..	*616	..	..	*616	*295
	2018	..	*558	..	..	*558	*265
	2019	..	*555	..	..	*555	*261
Madagascar	2016	..	340	..	..	340	14
	2017	..	483	..	..	483	19
	2018	..	420	..	..	420	16
	2019	..	473	..	..	473	18
Malawi	2016	38	37	7	..	68	4
	2017	*42	34	*7	..	*69	*4
	2018	*44	42	*8	..	*77	*4
	2019	*48	32	*9	..	*71	*4

Table 4

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mauritius	2016	..	815	..	168	647	512
	2017	..	1,267	..	594	673	532
	2018	..	1,136	..	497	639	504
	2019	..	1,039	..	451	588	463
Morocco	2016	..	6,340	..	221	6,119	172
	2017	..	6,420	..	59	6,361	176
	2018	..	7,976	..	619	7,357	201
	2019	..	9,535	..	14	9,522	257
Mozambique	2016	5,039	..	7,291	*-2,271	19	1
	2017	10,772	..	15,956	-5,193	9	0
	2018	14,719	..	14,220	476	24	1
	2019	9,928	..	9,968	-58	17	1
Namibia	2016	..	26	..	..	26	11
	2017	..	33	..	..	33	14
	2018	..	17	..	7	10	4
	2019	..	26	..	7	19	8
Niger	2016	135	..	..	0	135	6
	2017	127	..	..	0	127	6
	2018	122	..	..	..	122	5
	2019	123	..	..	..	123	5
Nigeria	2016	46	..	..	..	46	0
	2017	45	..	..	..	45	0
	2018	42	..	..	..	42	0
	2019	48	..	..	..	48	0
Rwanda	2016	*2	..	..	..	*2	0
	2017	*3	..	..	..	*3	0
	2018	*5	..	..	..	*5	0
	2019	*7	..	..	..	*7	*1
Senegal	2016	..	455	..	..	455	30
	2017	..	542	..	..	542	35
	2018	..	852	..	..	852	54
	2019	..	787	..	..	787	48
South Africa	2016	205,416	1,957	62,455	..	144,918	2,578
	2017	204,095	2,587	67,262	..	139,420	2,446
	2018	206,349	3,560	76,054	..	133,855	2,316
	2019	208,402	3,626	63,405	..	148,624	2,538
United Rep. of Tanzania	2016	243	..	..	..	243	5
	2017	496	..	..	..	496	9
	2018	553	..	..	..	553	10
	2019	627	..	..	..	627	11
Zambia	2016	277	*50	*2	..	325	20
	2017	672	*50	*2	..	720	43
	2018	990	*50	*2	..	1,038	60
	2019	840	*50	*2	..	888	50
Zimbabwe	2016	1,507	50	229	-1,287	2,615	186
	2017	2,697	60	115	417	2,225	156
	2018	3,083	52	179	250	2,706	187
	2019	2,834	25	207	56	2,596	177
<b>America, North</b>	<b>2016</b>	<b>549,460</b>	<b>25,675</b>	<b>76,441</b>	<b>-36,077</b>	<b>534,771</b>	<b>934</b>
	<b>2017</b>	<b>586,784</b>	<b>26,306</b>	<b>106,667</b>	<b>-14,773</b>	<b>521,195</b>	<b>903</b>
	<b>2018</b>	<b>577,525</b>	<b>24,404</b>	<b>123,727</b>	<b>-22,768</b>	<b>500,971</b>	<b>861</b>
	<b>2019</b>	<b>542,429</b>	<b>27,146</b>	<b>107,786</b>	<b>27,391</b>	<b>434,398</b>	<b>740</b>

Table 4

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bahamas	2016	..	*1	..	..	*1	*4
	2017	..	*1	..	..	*1	*4
	2018	..	*1	..	..	*1	*4
	2019	..	*1	..	..	*1	*4
Bermuda	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	1
	2019	..	0	..	..	0	1
Canada	2016	41,707	6,756	26,047	-2,401	24,818	682
	2017	44,264	7,775	26,542	-152	25,649	698
	2018	41,806	7,832	27,556	1,556	20,526	554
	2019	41,234	8,528	29,728	374	19,661	526
Costa Rica	2016	..	0	..	..	0	0
	2017	..	6	..	..	6	1
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	0
Cuba	2016	..	3	..	..	3	0
	2017	..	4	..	..	4	0
	2018	..	5	..	..	5	0
	2019	..	2	..	..	2	0
Dominican Republic	2016	..	988	..	34	954	92
	2017	..	1,105	..	-5	1,109	106
	2018	..	1,112	..	21	1,090	103
	2019	..	1,062	..	-20	1,083	101
El Salvador	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Guatemala	2016	..	2,016	..	239	1,777	107
	2017	..	1,609	..	135	1,475	87
	2018	..	1,780	..	39	1,741	101
	2019	..	2,504	..	805	1,700	97
Honduras	2016	..	57	..	..	57	6
	2017	..	1	..	..	1	0
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Jamaica	2016	..	86	..	1	86	30
	2017	..	85	..	12	72	25
	2018	..	93	..	17	77	26
	2019	..	77	..	-12	89	30
Mexico	2016	9,943	8,053	2	308	17,686	143
	2017	9,401	9,819	99	1,010	18,111	145
	2018	8,593	8,924	48	-104	17,573	139
	2019	7,071	9,241	5	-540	16,847	132
Panama	2016	..	276	..	..	276	68
	2017	..	77	..	..	77	19
	2018	..	193	..	..	193	46
	2019	..	789	..	..	789	186
United States	2016	497,810	7,437	50,392	-34,257	489,112	1,514
	2017	533,119	5,823	80,026	-15,773	474,689	1,460
	2018	527,126	4,463	96,123	-24,297	459,763	1,406
	2019	494,124	4,939	78,053	26,786	394,224	1,198

Table 4

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>America, South</b>	<b>2016</b>	<b>90,472</b>	<b>31,290</b>	<b>80,120</b>	<b>-1,686</b>	<b>43,327</b>	<b>104</b>
	<b>2017</b>	<b>89,060</b>	<b>33,167</b>	<b>98,407</b>	<b>-19,092</b>	<b>42,912</b>	<b>102</b>
	<b>2018</b>	<b>82,766</b>	<b>32,984</b>	<b>80,763</b>	<b>-6,563</b>	<b>41,550</b>	<b>98</b>
	<b>2019</b>	<b>87,341</b>	<b>31,250</b>	<b>76,502</b>	<b>-486</b>	<b>42,575</b>	<b>100</b>
Argentina	2016	20	1,554	8	-13	1,581	36
	2017	17	1,486	0	-110	1,613	37
	2018	51	1,666	2	72	1,642	37
	2019	88	955	50	186	807	18
Bolivia (Plur. State of)	2016	..	5	..	..	5	0
	2017	..	8	..	..	8	1
	2018	..	7	..	..	7	1
	2019	..	8	..	..	8	1
Brazil	2016	3,766	19,532	..	485	22,813	111
	2017	2,759	21,563	..	204	24,118	116
	2018	2,757	21,539	..	758	23,539	112
	2019	3,090	19,056	..	75	22,070	105
Chile	2016	1,448	9,464	641	91	10,179	559
	2017	1,403	9,554	579	-79	10,456	566
	2018	1,286	9,356	272	176	10,194	544
	2019	813	10,730	53	-201	11,690	617
Colombia	2016	84,046	0	78,590	-1,864	7,321	152
	2017	84,081	0	97,083	-18,538	5,536	113
	2018	78,263	0	79,746	-6,653	5,170	104
	2019	82,767	0	75,459	363	6,945	138
Falkland Is. (Malvinas)	2016	*2	..	..	..	*2	*778
	2017	2	..	..	..	2	529
	2018	2	..	..	..	2	502
	2019	2	..	..	..	2	482
Guyana	2016	..	0	..	0	0	0
	2017	..	0	14	-14	0	0
	2018	..	2	0	2	0	0
	2019	..	19	..	0	19	24
Paraguay	2016	..	2	..	..	2	0
	2017	..	1	..	..	1	0
	2018	..	5	..	..	5	1
	2019	..	2	..	..	2	0
Peru	2016	251	730	154	-384	1,211	39
	2017	278	553	326	-554	1,059	34
	2018	198	408	581	-917	943	29
	2019	170	480	591	-911	970	30
Uruguay	2016	..	2	..	..	2	1
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Venezuela (Bolivar. Rep.)	2016	939	..	728	..	211	7
	2017	521	..	405	..	117	4
	2018	209	..	162	..	47	2
	2019	411	..	349	..	62	2
<b>Asia</b>	<b>2016</b>	<b>3,413,732</b>	<b>824,907</b>	<b>411,597</b>	<b>-107,481</b>	<b>3,934,522</b>	<b>879</b>
	<b>2017</b>	<b>3,513,194</b>	<b>872,759</b>	<b>417,538</b>	<b>-49,312</b>	<b>4,017,728</b>	<b>889</b>
	<b>2018</b>	<b>3,746,851</b>	<b>908,612</b>	<b>450,843</b>	<b>32,276</b>	<b>4,172,343</b>	<b>915</b>
	<b>2019</b>	<b>3,885,321</b>	<b>949,482</b>	<b>454,044</b>	<b>55,620</b>	<b>4,325,140</b>	<b>940</b>

**Table 4**

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Afghanistan	2016	1,495	*193	709	..	979	28
	2017	1,929	*195	957	..	1,167	32
	2018	2,152	*195	1,048	..	1,300	35
	2019	1,883	*195	744	..	1,334	35
Armenia	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	2	..	..	2	1
	2019	..	4	..	..	4	1
Azerbaijan	2016	..	1	..	-1	2	0
	2017	..	2	..	0	2	0
	2018	..	1	..	..	1	0
	2019	..	1	..	0	1	0
Bangladesh	2016	729	1,559	..	..	2,289	14
	2017	829	1,866	..	..	2,695	17
	2018	659	2,424	..	..	3,083	19
	2019	659	4,996	..	..	5,655	35
Bhutan	2016	104	..	0	..	104	141
	2017	142	..	17	..	126	168
	2018	164	..	24	..	141	187
	2019	163	..	23	..	140	184
Brunei Darussalam	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	163	..	..	163	376
Cambodia	2016	..	1,105	..	..	1,105	70
	2017	29	1,279	..	..	1,307	82
	2018	17	1,371	..	..	1,389	85
	2019	18	1,713	..	133	1,598	97
China	2016	2,415,315	160,992	16,054	-105,199	2,665,452	1,885
	2017	2,496,752	169,202	13,579	-47,675	2,700,050	1,900
	2018	2,622,819	171,719	12,957	23,843	2,757,738	1,932
	2019	2,729,792	185,641	10,600	61,684	2,843,149	1,983
China, Hong Kong SAR	2016	..	10,042	0	478	9,565	1,320
	2017	..	9,450	..	490	8,960	1,226
	2018	..	9,793	..	592	9,201	1,248
	2019	..	9,028	..	217	8,812	1,185
Cyprus	2016	..	0	..	0	0	0
	2017	..	15	..	10	4	4
	2018	..	19	..	0	20	17
	2019	..	29	..	4	24	20
Georgia	2016	172	245	1	34	382	95
	2017	156	289	14	0	430	107
	2018	81	406	3	32	452	113
	2019	10	386	2	27	367	92
India	2016	384,883	176,775	1,085	-7,385	567,959	429
	2017	385,495	193,663	930	-8,617	586,845	438
	2018	412,754	220,142	755	2,907	629,234	465
	2019	410,951	229,249	621	-12,873	652,452	477
Indonesia	2016	402,358	3,959	326,101	-364	80,581	308
	2017	407,258	4,694	344,127	346	67,479	255
	2018	485,069	5,323	379,789	-875	111,478	416
	2019	514,671	5,812	383,507	3,206	133,770	494

Table 4

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Iran (Islamic Rep. of)	2016	1,056	345	99	1	1,302	16
	2017	1,452	440	114	1	1,777	22
	2018	1,570	607	305	..	1,872	23
	2019	1,446	491	532	-2	1,408	17
Israel	2016	57	7,465	..	-331	7,853	968
	2017	61	7,240	..	202	7,099	861
	2018	56	6,557	..	-220	6,833	815
	2019	55	7,118	..	384	6,788	797
Japan	2016	942	166,550	1,024	77	166,392	1,302
	2017	1,105	170,090	1,229	-79	170,046	1,334
	2018	764	168,184	1,456	62	167,430	1,316
	2019	614	165,738	1,591	-33	164,794	1,299
Jordan	2016	..	324	..	..	324	34
	2017	..	221	..	..	221	23
	2018	..	301	..	..	301	30
	2019	..	299	..	..	299	30
Kazakhstan	2016	65,346	778	16,506	-1,121	50,738	2,846
	2017	71,376	876	18,635	-1,669	55,286	3,058
	2018	69,537	1,189	17,288	-212	53,649	2,929
	2019	64,165	1,250	15,634	460	49,322	2,659
Korea, Dem.Ppl's.Rep.	2016	27,262	1,284	20,435	..	8,112	321
	2017	18,994	794	2,414	..	17,374	683
	2018	15,856	128	..	..	15,984	626
	2019	17,724	124	..	..	17,848	695
Korea, Republic of	2016	1,097	116,238	..	812	116,523	2,286
	2017	983	116,667	..	-198	117,848	2,306
	2018	754	114,014	..	-222	114,989	2,247
	2019	718	114,377	..	563	114,533	2,236
Kyrgyzstan	2016	959	567	204	37	1,284	211
	2017	969	648	268	97	1,251	202
	2018	1,241	585	433	-91	1,484	235
	2019	1,347	354	584	-38	1,155	180
Lao People's Dem. Rep.	2016	4,993	..	..	659	4,335	633
	2017	5,070	..	77	-411	5,404	777
	2018	5,351	..	136	*-349	5,564	788
	2019	5,158	..	*181	*-149	5,126	715
Lebanon	2016	..	*236	..	..	*236	*35
	2017	..	*236	..	..	*236	*35
	2018	..	*236	..	..	*236	*34
	2019	..	*236	..	..	*236	*34
Malaysia	2016	2,175	24,447	22	-178	26,779	873
	2017	2,692	27,401	547	-82	29,628	953
	2018	2,389	29,633	0	305	31,717	1,006
	2019	2,493	29,760	191	..	32,061	1,003
Mongolia	2016	31,123	0	22,902	-131	8,352	2,733
	2017	43,242	2	27,750	4,289	11,205	3,598
	2018	46,279	2	30,619	364	15,298	4,826
	2019	46,670	53	31,124	..	15,599	4,837
Myanmar	2016	436	..	13	..	424	8
	2017	585	..	0	..	585	11
	2018	1,225	..	..	..	1,225	23
	2019	1,482	..	..	..	1,482	27

Table 4

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Nepal	2016	19	967	..	..	986	36
	2017	20	1,109	..	..	1,129	41
	2018	22	1,613	..	..	1,635	58
	2019	23	1,268	..	..	1,291	45
Other Asia	2016	..	57,984	1	-547	58,530	2,478
	2017	..	59,969	45	208	59,716	2,522
	2018	..	55,528	25	-729	56,232	2,370
	2019	..	56,962	20	1,146	55,796	2,347
Pakistan	2016	2,406	6,623	..	..	9,029	44
	2017	2,538	12,908	..	..	15,445	74
	2018	2,874	14,796	..	..	17,670	83
	2019	3,470	15,490	..	..	18,961	88
Philippines	2016	8,453	15,061	5,134	-273	18,654	180
	2017	8,997	17,003	4,636	-956	22,320	212
	2018	8,864	19,979	3,797	1,541	23,505	220
	2019	10,369	21,080	7,525	-1,250	25,174	233
Singapore	2016	..	609	1	..	609	108
	2017	..	1,284	1	..	1,283	225
	2018	..	683	1	..	682	118
	2019	..	654	0	..	654	113
Sri Lanka	2016	..	2,405	..	323	2,082	99
	2017	..	2,527	..	*370	2,157	102
	2018	..	2,166	..	82	2,084	98
	2019	..	2,389	..	164	2,224	104
Syrian Arab Republic	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Tajikistan	2016	1,117	8	0	..	1,125	130
	2017	1,491	6	4	..	1,492	168
	2018	1,609	6	37	..	1,578	173
	2019	1,713	22	16	..	1,719	184
Thailand	2016	6,151	20,375	31	4,474	22,022	319
	2017	5,864	21,101	41	3,512	23,412	338
	2018	5,357	23,276	76	5,939	22,619	326
	2019	5,046	20,394	53	2,045	23,342	335
Turkey	2016	22,139	33,623	179	777	54,805	687
	2017	22,403	35,587	204	435	57,351	707
	2018	23,637	34,970	184	-45	58,468	710
	2019	24,898	34,726	183	-514	59,955	719
United Arab Emirates	2016	..	2,630	0	..	2,630	281
	2017	..	3,042	1	..	3,041	321
	2018	..	2,744	0	..	2,743	285
	2019	..	2,539	1	..	2,539	260
Uzbekistan	2016	1,955	468	0	-155	2,578	82
	2017	2,036	481	0	87	2,430	76
	2018	2,111	757	0	-648	3,517	108
	2019	2,056	851	0	-118	3,025	92
Viet Nam	2016	30,988	10,937	1,098	534	40,293	430
	2017	30,727	12,372	1,950	329	40,820	432
	2018	33,637	19,159	1,911	..	50,886	533
	2019	37,726	35,971	914	564	72,219	749

Table 4

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Yemen	2016	..	107	..	..	107	4
	2017	..	102	..	..	102	4
	2018	..	103	..	..	103	4
	2019	..	118	..	..	118	4
<b>Europe</b>	<b>2016</b>	<b>541,655</b>	<b>204,376</b>	<b>177,895</b>	<b>-13,795</b>	<b>581,930</b>	<b>780</b>
	<b>2017</b>	<b>543,603</b>	<b>212,813</b>	<b>190,132</b>	<b>3,534</b>	<b>562,750</b>	<b>753</b>
	<b>2018</b>	<b>582,266</b>	<b>207,932</b>	<b>223,070</b>	<b>6,444</b>	<b>560,684</b>	<b>749</b>
	<b>2019</b>	<b>554,056</b>	<b>178,337</b>	<b>213,311</b>	<b>16,813</b>	<b>502,269</b>	<b>670</b>
Albania	2016	2	70	..	..	72	25
	2017	32	92	21	..	103	36
	2018	68	111	1	..	177	61
	2019	22	100	..	..	122	42
Andorra	2016	..	0	..	..	0	*1
	2017	..	0	..	..	0	*1
	2018	..	0	..	..	0	*1
	2019	..	0	..	..	0	*1
Austria	2016	0	4,132	37	-219	4,314	493
	2017	..	4,480	40	-4	4,444	504
	2018	..	3,874	42	-98	3,930	442
	2019	..	3,932	36	-125	4,021	449
Belarus	2016	465	676	62	-101	1,180	125
	2017	654	694	176	-44	1,216	129
	2018	777	1,392	746	183	1,240	131
	2019	767	3,430	2,773	110	1,314	139
Belgium	2016	62	4,113	76	-231	4,330	381
	2017	56	4,212	105	-205	4,368	382
	2018	76	4,616	76	234	4,382	382
	2019	79	4,534	126	142	4,345	377
Bosnia and Herzegovina	2016	5,029	1,340	462	33	5,874	1,735
	2017	5,160	1,442	386	232	5,984	1,785
	2018	5,227	1,520	621	83	6,043	1,818
	2019	4,861	1,606	502	382	5,583	1,691
Bulgaria	2016	7,309	822	4	-34	8,160	1,141
	2017	8,135	832	5	193	8,768	1,235
	2018	7,535	842	10	260	8,107	1,150
	2019	6,974	573	12	-11	7,546	1,078
Croatia	2016	..	949	..	19	930	221
	2017	..	565	..	4	560	134
	2018	..	478	..	-44	522	126
	2019	..	641	..	40	602	146
Czechia	2016	23,034	4,165	4,284	-947	23,863	2,247
	2017	21,832	4,222	3,308	-112	22,857	2,148
	2018	20,999	4,151	2,843	-254	22,560	2,115
	2019	19,194	4,130	2,283	610	20,430	1,911
Denmark	2016	..	2,403	17	-434	2,819	494
	2017	..	2,564	0	351	2,212	386
	2018	..	2,520	15	51	2,453	426
	2019	..	1,957	37	665	1,254	217
Estonia	2016	4,895	21	19	-832	5,728	4,351
	2017	5,935	34	29	-132	6,072	4,602
	2018	6,885	33	13	288	6,617	5,002
	2019	4,995	41	20	64	4,952	3,736



Table 4

### Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Finland	2016	1,029	3,994	89	-1,271	6,205	1,129
	2017	1,044	3,872	135	-1,143	5,923	1,075
	2018	2,588	4,077	105	552	6,008	1,088
	2019	1,499	3,247	200	-466	5,011	906
France	2016	..	12,318	79	-895	13,133	196
	2017	..	14,453	5	305	14,142	211
	2018	..	13,234	48	128	13,058	194
	2019	..	10,416	6	-78	10,489	156
Germany	2016	56,750	56,663	1,985	1,187	110,241	1,341
	2017	56,346	48,289	2,112	608	101,915	1,233
	2018	53,737	43,257	2,082	-3,546	98,459	1,184
	2019	40,598	40,254	2,132	1,826	76,894	921
Greece	2016	5,675	272	..	-295	6,242	588
	2017	6,525	327	..	-29	6,881	651
	2018	6,107	335	..	-78	6,520	620
	2019	4,411	290	..	135	4,566	436
Hungary	2016	2,089	1,624	514	-27	3,226	331
	2017	1,833	1,798	376	44	3,211	330
	2018	1,816	1,795	303	77	3,231	333
	2019	1,419	1,522	318	-16	2,639	273
Iceland	2016	..	142	..	..	142	429
	2017	..	142	..	..	142	424
	2018	..	161	..	0	161	478
	2019	..	152	..	..	152	448
Ireland	2016	970	1,683	14	-386	3,025	644
	2017	1,063	1,829	15	220	2,655	559
	2018	1,145	1,284	6	332	2,091	434
	2019	558	298	4	-626	1,478	303
Italy	2016	0	15,663	370	-396	15,689	258
	2017	..	13,706	338	36	13,332	220
	2018	..	12,683	357	131	12,196	201
	2019	..	9,411	283	-130	9,258	153
Kosovo	2016	2,343	2	5	-71	2,411	1,357
	2017	2,017	4	4	-9	2,026	1,131
	2018	2,039	3	2	-9	2,049	1,140
	2019	2,146	3	7	-7	2,149	1,198
Latvia	2016	1	54	5	-8	59	30
	2017	1	56	5	-7	59	30
	2018	2	67	9	-8	68	35
	2019	3	66	4	7	58	30
Lithuania	2016	7	229	2	-23	257	89
	2017	10	271	2	5	274	96
	2018	11	269	1	-12	291	104
	2019	12	281	1	18	274	99
Luxembourg	2016	..	75	..	..	75	130
	2017	..	65	..	..	65	109
	2018	..	60	..	..	60	100
	2019	..	61	..	..	61	99
Montenegro	2016	439	2	13	..	428	682
	2017	464	2	30	..	435	693
	2018	523	2	31	-21	515	820
	2019	566	2	39	2	526	838

Table 4

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Netherlands	2016	..	14,263	98	-61	14,226	838
	2017	..	13,450	191	90	13,169	774
	2018	..	11,899	103	-15	11,811	692
	2019	..	9,511	136	201	9,174	537
North Macedonia	2016	1,065	161	0	-18	1,243	597
	2017	1,218	130	0	-33	1,381	663
	2018	1,143	168	1	75	1,235	593
	2019	1,229	175	0	-64	1,468	705
Norway	2016	784	1,047	874	-125	1,082	206
	2017	126	1,148	72	-9	1,211	229
	2018	144	1,120	108	-20	1,176	220
	2019	116	1,111	76	7	1,145	213
Poland	2016	74,742	7,181	14,535	-3,943	71,330	1,878
	2017	71,156	11,214	12,362	-1,740	71,749	1,890
	2018	68,685	16,161	10,685	2,869	71,292	1,880
	2019	63,729	14,384	9,827	4,694	63,591	1,678
Portugal	2016	..	4,160	..	94	4,066	394
	2017	..	4,869	..	259	4,610	448
	2018	..	3,810	..	-42	3,852	376
	2019	..	2,186	..	396	1,790	175
Republic of Moldova	2016	..	84	..	-22	106	26
	2017	..	172	..	21	151	37
	2018	..	122	..	6	116	29
	2019	..	125	..	-14	138	34
Romania	2016	6,051	1,481	1	-13	7,543	381
	2017	6,383	1,429	1	84	7,727	393
	2018	5,740	1,287	2	-194	7,220	370
	2019	5,611	1,562	0	101	7,071	365
Russian Federation	2016	298,801	*20,001	152,746	1,216	164,840	1,135
	2017	317,480	*24,602	168,843	7,695	165,544	1,138
	2018	361,269	*24,127	*203,710	6,648	175,039	1,201
	2019	360,965	*20,522	192,147	7,013	182,326	1,250
Serbia	2016	10,287	913	20	-92	11,272	1,593
	2017	10,309	980	23	16	11,250	1,598
	2018	9,442	1,113	21	-215	10,749	1,534
	2019	9,751	1,148	24	130	10,745	1,540
Slovakia	2016	870	3,912	69	-140	4,853	892
	2017	638	4,312	67	49	4,834	887
	2018	522	4,507	56	141	4,831	886
	2019	508	3,716	119	208	3,897	714
Slovenia	2016	1,170	216	0	-7	1,393	671
	2017	1,333	283	..	-6	1,622	781
	2018	1,288	306	..	-22	1,616	778
	2019	1,258	312	..	39	1,532	737
Spain	2016	1,052	11,558	428	-2,507	14,689	315
	2017	1,611	15,931	299	-923	18,166	389
	2018	1,261	13,617	432	-1,371	15,817	339
	2019	..	7,907	1,398	-469	6,978	149
Sweden	2016	181	3,204	27	409	2,949	300
	2017	161	2,826	29	29	2,929	296
	2018	228	2,932	9	11	3,141	315
	2019	151	2,816	47	81	2,840	283

Table 4

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Switzerland	2016	..	162	..	-1	163	19
	2017	..	156	0	-1	157	19
	2018	..	115	0	-31	145	17
	2019	..	114	0	-16	130	15
Ukraine	2016	32,979	15,168	657	815	46,675	1,044
	2017	19,481	18,561	711	573	36,759	826
	2018	20,801	19,723	78	141	40,304	911
	2019	20,652	18,912	64	2,138	37,362	849
United Kingdom	2016	3,573	9,455	401	-4,470	17,098	258
	2017	2,601	8,801	443	-2,886	13,845	207
	2018	2,207	10,160	554	212	11,600	173
	2019	1,982	6,890	688	-175	8,360	124
<b>Oceania</b>	<b>2016</b>	<b>419,301</b>	<b>1,521</b>	<b>360,366</b>	<b>-6,480</b>	<b>66,935</b>	<b>1,655</b>
	<b>2017</b>	<b>420,571</b>	<b>1,535</b>	<b>350,472</b>	<b>4,345</b>	<b>67,289</b>	<b>1,641</b>
	<b>2018</b>	<b>413,208</b>	<b>1,862</b>	<b>352,628</b>	<b>-2,440</b>	<b>64,882</b>	<b>1,561</b>
	<b>2019</b>	<b>432,394</b>	<b>2,367</b>	<b>362,952</b>	<b>8,253</b>	<b>63,556</b>	<b>1,509</b>
Australia	2016	416,972	233	359,145	-6,325	64,385	2,654
	2017	418,210	270	349,288	4,599	64,594	2,627
	2018	410,631	435	351,384	-2,579	62,260	2,501
	2019	429,801	581	361,528	8,383	60,472	2,399
New Caledonia	2016	..	960	..	45	914	3,335
	2017	..	927	..	-105	1,033	3,725
	2018	..	995	..	54	941	3,362
	2019	..	912	..	-24	936	3,312
New Zealand	2016	2,329	328	1,222	-200	1,636	351
	2017	2,361	338	1,184	-148	1,662	353
	2018	2,577	432	1,244	84	1,680	354
	2019	2,593	874	1,424	-105	2,148	449





### Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

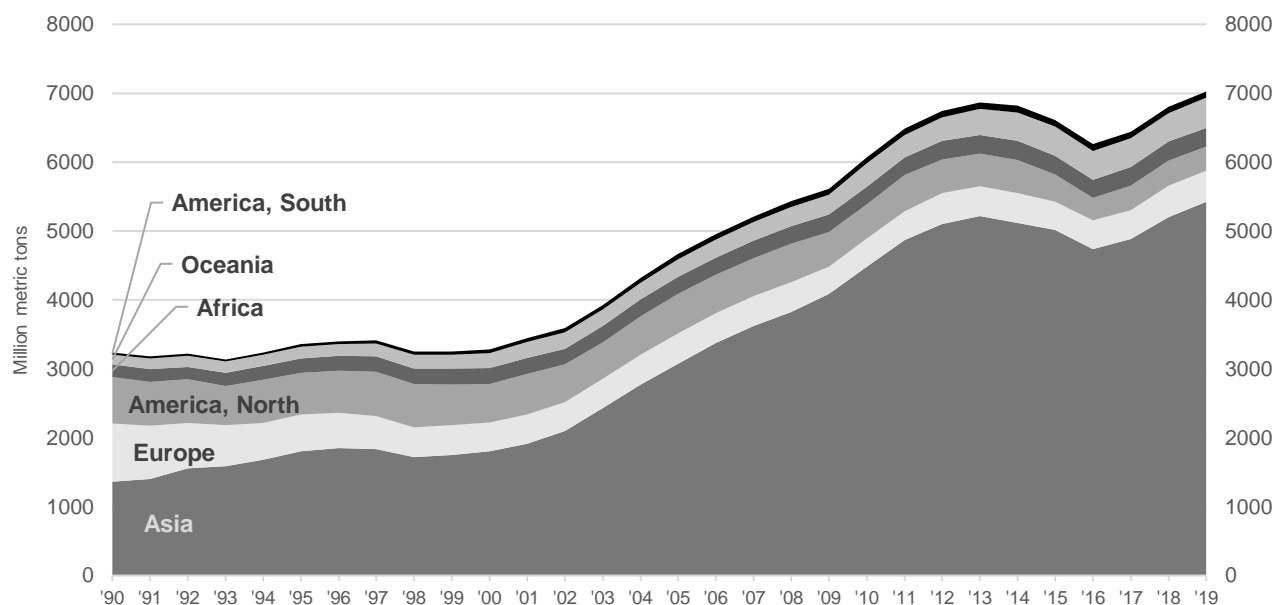
#### Table Notes

**Production** includes production from other sources as defined in the previous table.

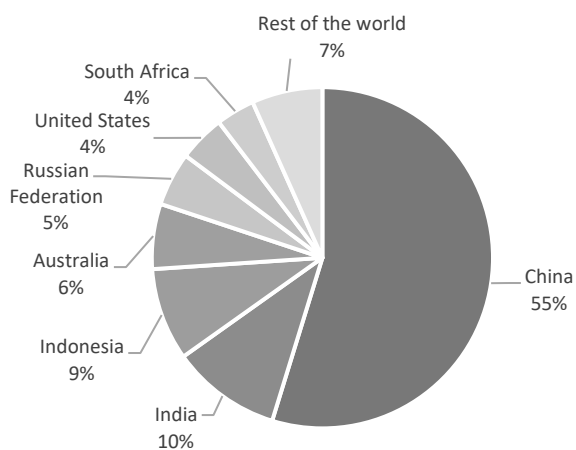
Data for China include brown coal.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 12: Production of hard coal by region, 1990-2019**



**Figure 13: Major hard coal producing countries, 2019**



**Figure 14: Major hard coal consuming countries, 2019**

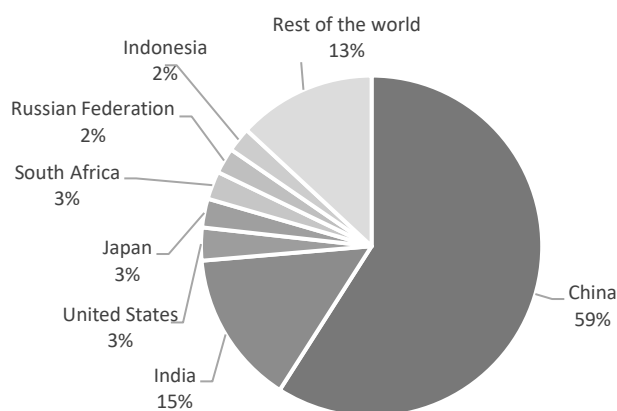


Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>6,261,555</b>	<b>1,238,291</b>	<b>1,277,098</b>	<b>-187,775</b>	<b>6,410,523</b>	<b>859</b>
	<b>2017</b>	<b>6,443,172</b>	<b>1,310,139</b>	<b>1,350,648</b>	<b>-82,660</b>	<b>6,485,322</b>	<b>859</b>
	<b>2018</b>	<b>6,802,449</b>	<b>1,355,531</b>	<b>1,431,304</b>	<b>22,927</b>	<b>6,703,749</b>	<b>878</b>
	<b>2019</b>	<b>7,023,953</b>	<b>1,377,465</b>	<b>1,415,353</b>	<b>118,438</b>	<b>6,867,627</b>	<b>890</b>
<b>Africa</b>	<b>2016</b>	<b>264,044</b>	<b>12,663</b>	<b>85,541</b>	<b>-3,448</b>	<b>194,615</b>	<b>161</b>
	<b>2017</b>	<b>271,114</b>	<b>16,634</b>	<b>101,031</b>	<b>-4,481</b>	<b>191,198</b>	<b>154</b>
	<b>2018</b>	<b>279,234</b>	<b>21,964</b>	<b>110,108</b>	<b>2,143</b>	<b>188,947</b>	<b>148</b>
	<b>2019</b>	<b>276,082</b>	<b>22,601</b>	<b>89,919</b>	<b>521</b>	<b>208,243</b>	<b>159</b>
Algeria	2016	..	0	..	0	0	0
	2017	..	0	..	-5	5	0
	2018	..	12	..	4	8	0
	2019	..	8	..	-9	17	0
Benin	2016	..	80	..	..	80	7
	2017	..	76	..	..	76	7
	2018	..	120	..	120	0	0
	2019	..	102	..	..	102	9
Botswana	2016	1,874	..	205	*-3	1,672	774
	2017	2,220	..	229	..	1,991	903
	2018	2,482	..	317	..	2,165	960
	2019	2,111	..	304	..	1,807	784
Burundi	2016	..	10	..	..	10	1
	2017	..	1	..	..	1	0
	2018	..	0	..	..	0	0
	2019	..	10	..	..	10	1
Egypt	2016	..	387	..	..	387	4
	2017	..	2,792	..	..	2,792	29
	2018	..	5,403	..	..	5,403	55
	2019	..	4,513	..	..	4,513	45
Eswatini	2016	158	82	*158	*-11	93	83
	2017	182	61	182	..	61	54
	2018	129	61	129	..	61	54
	2019	117	76	117	..	76	66
Ethiopia	2016	2	526	..	..	528	5
	2017	2	580	..	..	582	5
	2018	2	418	..	..	420	4
	2019	2	453	..	..	455	4
Kenya	2016	..	491	..	..	491	10
	2017	..	463	..	..	463	9
	2018	..	693	..	..	693	13
	2019	..	612	..	..	612	12
Lesotho	2016	..	*590	..	..	*590	*284
	2017	..	*700	..	..	*700	*335
	2018	..	*634	..	..	*634	*301
	2019	..	*630	..	..	*630	*296
Madagascar	2016	..	386	..	..	386	16
	2017	..	549	..	..	549	21
	2018	..	451	..	..	451	17
	2019	..	511	..	..	511	19
Malawi	2016	43	42	8	..	77	4
	2017	*48	39	*8	..	*79	*4
	2018	*50	48	*10	..	*88	*5
	2019	*55	36	*10	..	*81	*4

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mauritius	2016	..	926	..	191	734	582
	2017	..	1,431	..	671	760	601
	2018	..	1,283	..	561	722	570
	2019	..	1,173	..	509	664	523
Morocco	2016	..	6,724	..	234	6,490	182
	2017	..	6,809	..	63	6,746	187
	2018	..	8,459	..	657	7,803	213
	2019	..	10,113	..	15	10,099	273
Mozambique	2016	5,462	..	7,903	*-2,462	21	1
	2017	11,746	..	17,399	-5,663	10	0
	2018	16,095	..	15,549	520	26	1
	2019	10,878	..	10,923	-64	19	1
Namibia	2016	..	34	..	..	34	14
	2017	..	42	..	..	42	17
	2018	..	22	..	9	13	5
	2019	..	34	..	9	25	10
Niger	2016	247	..	..	0	247	12
	2017	233	..	..	0	233	11
	2018	224	..	..	..	224	10
	2019	226	..	..	..	226	10
Nigeria	2016	52	..	..	..	52	0
	2017	51	..	..	..	51	0
	2018	48	..	..	..	48	0
	2019	55	..	..	..	55	0
Senegal	2016	..	514	..	..	514	34
	2017	..	613	..	..	613	40
	2018	..	963	..	..	963	61
	2019	..	890	..	..	890	55
South Africa	2016	253,966	1,850	77,216	..	178,600	3,178
	2017	252,343	2,446	83,163	..	171,626	3,010
	2018	255,054	3,366	94,005	..	164,415	2,845
	2019	257,853	3,429	78,450	..	182,832	3,122
United Rep. of Tanzania	2016	276	..	..	..	276	5
	2017	563	..	..	..	563	10
	2018	628	..	..	..	628	11
	2019	712	..	..	..	712	12
Zambia	2016	328	..	..	..	328	20
	2017	797	..	..	..	797	47
	2018	1,174	..	..	..	1,174	68
	2019	996	..	..	..	996	56
Zimbabwe	2016	1,636	21	50	-1,397	3,004	214
	2017	2,928	33	50	453	2,458	173
	2018	3,348	30	98	272	3,008	208
	2019	3,076	11	115	61	2,911	199
<b>America, North</b>	<b>2016</b>	<b>327,054</b>	<b>22,187</b>	<b>82,167</b>	<b>-26,181</b>	<b>293,255</b>	<b>512</b>
	<b>2017</b>	<b>356,058</b>	<b>22,924</b>	<b>111,092</b>	<b>-11,198</b>	<b>279,088</b>	<b>483</b>
	<b>2018</b>	<b>362,114</b>	<b>20,786</b>	<b>129,978</b>	<b>-10,608</b>	<b>263,530</b>	<b>453</b>
	<b>2019</b>	<b>347,107</b>	<b>24,064</b>	<b>113,820</b>	<b>21,774</b>	<b>235,576</b>	<b>402</b>
Bermuda	2016	..	0	..	..	0	0
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	0



Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Canada	2016	27,761	5,047	30,382	-2,938	5,364	147
	2017	31,221	6,075	30,967	531	5,798	158
	2018	32,394	6,303	32,047	1,875	4,775	129
	2019	33,942	7,065	34,649	296	6,062	162
Costa Rica	2016	..	1	..	..	1	0
	2017	..	7	..	..	7	1
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	0
Cuba	2016	..	2	..	..	2	0
	2017	..	4	..	..	4	0
	2018	..	4	..	..	4	0
	2019	..	1	..	..	1	0
Dominican Republic	2016	..	1,122	..	39	1,084	104
	2017	..	1,255	..	-5	1,260	120
	2018	..	1,263	..	24	1,238	117
	2019	..	1,207	..	-23	1,230	115
Guatemala	2016	..	2,045	..	242	1,803	109
	2017	..	1,633	..	137	1,496	88
	2018	..	1,807	..	40	1,767	102
	2019	..	2,542	..	817	1,725	98
Honduras	2016	..	58	..	..	58	6
	2017	..	1	..	..	1	0
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Jamaica	2016	..	98	..	1	98	34
	2017	..	96	..	14	82	28
	2018	..	106	..	19	87	30
	2019	..	87	..	-14	101	34
Mexico	2016	4,437	6,656	2	3	11,088	90
	2017	4,605	8,178	3	-915	13,695	110
	2018	3,930	7,271	5	111	11,085	88
	2019	3,303	8,085	5	-121	11,504	90
Panama	2016	..	313	..	..	313	78
	2017	..	87	..	..	87	21
	2018	..	219	..	..	219	52
	2019	..	897	..	..	897	211
United States	2016	294,856	6,845	51,783	-23,527	273,445	847
	2017	320,232	5,588	80,122	-10,959	256,657	790
	2018	325,790	3,813	97,926	-12,677	244,354	747
	2019	309,862	4,180	79,166	20,820	214,056	650
<b>America, South</b>	<b>2016</b>	<b>101,236</b>	<b>33,283</b>	<b>85,068</b>	<b>-1,328</b>	<b>50,779</b>	<b>122</b>
	<b>2017</b>	<b>98,614</b>	<b>34,794</b>	<b>104,344</b>	<b>-20,650</b>	<b>49,714</b>	<b>118</b>
	<b>2018</b>	<b>91,855</b>	<b>34,477</b>	<b>84,805</b>	<b>-7,451</b>	<b>48,977</b>	<b>116</b>
	<b>2019</b>	<b>91,860</b>	<b>33,273</b>	<b>75,720</b>	<b>-673</b>	<b>50,086</b>	<b>117</b>
Argentina	2016	24	1,602	9	-16	1,633	38
	2017	20	1,510	0	-131	1,661	38
	2018	60	1,696	2	86	1,668	38
	2019	105	933	59	221	758	17
Bolivia (Plur. State of)	2016	..	6	..	..	6	1
	2017	..	10	..	..	10	1
	2018	..	8	..	..	8	1
	2019	..	9	..	..	9	1

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Brazil	2016	7,006	19,503	..	860	25,649	124
	2017	4,819	21,207	..	162	25,864	124
	2018	4,838	20,986	..	409	25,415	121
	2019	5,410	18,859	..	51	24,218	115
Chile	2016	2,525	11,585	870	281	12,959	712
	2017	2,425	11,595	914	-131	13,237	717
	2018	2,257	11,463	422	220	13,077	698
	2019	1,427	13,107	..	-296	14,830	783
Colombia	2016	90,512	0	83,326	-2,007	9,193	191
	2017	90,549	0	102,689	-19,964	7,824	160
	2018	84,284	0	83,593	-7,165	7,856	158
	2019	84,343	0	74,696	370	9,277	184
Paraguay	2016	..	2	..	..	2	0
	2017	..	1	..	..	1	0
	2018	..	5	..	..	5	1
	2019	..	2	..	..	2	0
Peru	2016	269	585	165	-446	1,135	37
	2017	301	471	353	-586	1,005	32
	2018	216	319	633	-1,001	903	28
	2019	181	364	630	-1,019	933	29
Venezuela (Bolivar. Rep.)	2016	900	..	698	..	202	7
	2017	500	..	388	..	112	4
	2018	200	..	155	..	45	2
	2019	394	..	334	..	60	2
<b>Asia</b>	<b>2016</b>	<b>4,734,523</b>	<b>959,217</b>	<b>452,662</b>	<b>-135,424</b>	<b>5,376,503</b>	<b>1,201</b>
	<b>2017</b>	<b>4,884,668</b>	<b>1,012,438</b>	<b>461,639</b>	<b>-56,157</b>	<b>5,491,623</b>	<b>1,215</b>
	<b>2018</b>	<b>5,198,049</b>	<b>1,060,210</b>	<b>495,060</b>	<b>35,905</b>	<b>5,727,294</b>	<b>1,256</b>
	<b>2019</b>	<b>5,422,958</b>	<b>1,114,182</b>	<b>524,074</b>	<b>70,063</b>	<b>5,943,003</b>	<b>1,292</b>
Afghanistan	2016	1,698	..	733	..	965	27
	2017	2,191	..	1,014	..	1,177	32
	2018	2,445	..	1,117	..	1,328	36
	2019	2,139	1	772	..	1,368	36
Armenia	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	4	..	..	4	1
Azerbaijan	2016	..	1	..	-1	2	0
	2017	..	2	..	0	2	0
	2018	..	1	..	..	1	0
	2019	..	1	..	0	1	0
Bangladesh	2016	1,022	2,184	..	..	3,206	20
	2017	1,161	2,614	..	..	3,775	24
	2018	923	3,395	..	..	4,318	27
	2019	923	6,997	..	..	7,920	49
Bhutan	2016	118	..	0	..	118	160
	2017	162	..	19	..	143	191
	2018	187	..	27	..	160	212
	2019	185	..	26	..	159	209
China	2016	3,410,604	255,553	8,790	-127,576	3,784,943	2,677
	2017	3,523,562	270,933	8,088	-48,390	3,834,797	2,699
	2018	3,697,736	282,098	4,936	26,418	3,948,480	2,766
	2019	3,846,330	299,770	6,030	84,700	4,055,370	2,828

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
China, Hong Kong SAR	2016	..	11,161	0	531	10,630	1,468
	2017	..	10,503	..	545	9,958	1,363
	2018	..	10,884	..	658	10,226	1,387
	2019	..	10,035	..	241	9,794	1,317
Cyprus	2016	..	0	..	0	0	0
	2017	..	17	..	11	5	4
	2018	..	22	..	-1	23	19
	2019	..	32	..	5	28	23
Georgia	2016	..	104	0	9	95	24
	2017	..	162	0	18	144	36
	2018	..	258	..	32	226	56
	2019	..	254	..	9	245	61
India	2016	657,868	190,953	1,773	-11,924	858,972	649
	2017	675,400	208,273	1,503	-15,905	898,075	671
	2018	728,720	235,240	1,313	4,401	958,246	708
	2019	730,873	248,537	1,047	-23,791	1,002,154	733
Indonesia	2016	456,000	3,564	369,576	-456	90,444	346
	2017	461,000	4,352	389,538	355	75,459	285
	2018	548,000	5,358	429,061	-1,030	125,327	468
	2019	616,167	6,770	459,136	3,774	160,027	591
Iran (Islamic Rep. of)	2016	1,115	334	103	..	1,346	17
	2017	1,521	362	68	..	1,815	22
	2018	1,646	302	228	..	1,720	21
	2019	1,515	170	193	..	1,492	18
Israel	2016	..	8,795	..	-390	9,185	1,133
	2017	..	8,516	..	237	8,279	1,004
	2018	..	7,721	..	-259	7,980	952
	2019	..	8,417	..	454	7,963	935
Japan	2016	1,288	189,434	2	..	190,720	1,493
	2017	1,328	191,103	3	..	192,428	1,509
	2018	964	188,548	32	..	189,480	1,490
	2019	775	186,892	4	..	187,664	1,479
Jordan	2016	..	326	..	..	326	34
	2017	..	196	..	..	196	20
	2018	..	264	..	..	264	26
	2019	..	260	..	..	260	26
Kazakhstan	2016	97,324	24	23,789	-1,974	75,532	4,236
	2017	106,199	4	26,986	-2,053	81,270	4,495
	2018	101,086	441	23,877	-448	78,097	4,263
	2019	98,593	288	22,615	786	75,480	4,069
Korea, Dem.Ppl's.Rep.	2016	28,305	1,240	22,586	..	6,959	275
	2017	19,739	706	2,671	..	17,774	699
	2018	16,478	..	..	..	16,478	645
	2019	18,419	19	..	..	18,438	718
Korea, Republic of	2016	1,726	127,892	..	1,277	128,341	2,517
	2017	1,486	129,113	..	-300	130,899	2,562
	2018	1,140	125,750	..	-335	127,225	2,486
	2019	1,086	127,380	..	851	127,615	2,491
Kyrgyzstan	2016	248	794	250	-119	911	150
	2017	247	926	208	44	921	149
	2018	324	819	394	2	747	118
	2019	329	488	568	-39	288	45

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Lao People's Dem. Rep.	2016	139	..	..	..	139	20
	2017	133	..	..	..	133	19
	2018	143	..	..	..	143	20
	2019	161	..	..	..	161	23
Lebanon	2016	..	*250	..	..	*250	*37
	2017	..	*250	..	..	*250	*37
	2018	..	*250	..	..	*250	*36
	2019	..	*250	..	..	*250	*36
Malaysia	2016	2,415	27,146	24	-198	29,735	969
	2017	2,989	30,426	607	-91	32,899	1,058
	2018	2,653	32,904	0	339	35,218	1,117
	2019	2,768	33,045	212	..	35,601	1,114
Mongolia	2016	28,851	1	23,680	-54	5,225	1,710
	2017	41,362	2	28,553	4,416	8,395	2,696
	2018	44,386	2	31,472	388	12,528	3,952
	2019	44,822	54	32,192	..	12,685	3,933
Myanmar	2016	550	..	16	..	534	10
	2017	737	..	0	..	737	14
	2018	1,544	..	..	..	1,544	29
	2019	1,867	..	..	..	1,867	35
Nepal	2016	22	1,128	..	..	1,150	42
	2017	24	1,294	..	..	1,318	48
	2018	25	1,882	..	..	1,907	68
	2019	27	1,479	..	..	1,507	53
Other Asia	2016	..	53,100	1	-918	54,017	2,287
	2017	..	55,287	1	-122	55,407	2,340
	2018	..	54,947	1	-574	55,519	2,340
	2019	..	55,582	1	1,056	54,524	2,293
Pakistan	2016	3,749	7,021	..	..	10,770	53
	2017	3,954	13,684	..	..	17,638	85
	2018	4,478	15,686	..	..	20,164	95
	2019	5,407	16,422	..	..	21,829	101
Singapore	2016	..	692	1	..	691	122
	2017	..	1,458	1	..	1,458	255
	2018	..	776	1	..	775	135
	2019	..	743	0	..	743	128
Sri Lanka	2016	..	2,405	..	323	2,082	99
	2017	..	2,527	..	*370	2,157	102
	2018	..	2,166	..	82	2,084	98
	2019	..	2,389	..	164	2,224	104
Tajikistan	2016	1,275	10	0	..	1,285	148
	2017	1,707	6	5	..	1,708	192
	2018	1,842	7	43	..	1,805	198
	2019	1,964	19	18	..	1,965	211
Thailand	2016	..	22,581	34	4,972	17,575	255
	2017	..	23,262	45	3,805	19,412	280
	2018	..	25,739	84	6,448	19,207	277
	2019	..	22,463	59	2,176	20,228	291
Turkey	2016	1,313	36,216	61	444	37,024	464
	2017	1,234	38,251	100	506	38,879	479
	2018	1,102	38,329	85	-200	39,546	480
	2019	1,206	38,141	57	-997	40,288	483

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
United Arab Emirates	2016	..	2,782	0	..	2,782	297
	2017	..	3,214	1	..	3,212	339
	2018	..	2,870	0	..	2,870	298
	2019	..	2,671	1	..	2,670	273
Uzbekistan	2016	160	206	0	-37	403	13
	2017	124	203	0	-15	342	11
	2018	181	580	..	-17	778	24
	2019	242	707	..	-30	979	30
Viet Nam	2016	38,735	13,199	1,243	667	50,024	534
	2017	38,409	14,677	2,229	411	50,446	533
	2018	42,047	22,856	2,388	..	62,515	654
	2019	47,158	43,770	1,143	705	89,080	923
Yemen	2016	..	122	..	..	122	4
	2017	..	116	..	..	116	4
	2018	..	117	..	..	117	4
	2019	..	134	..	..	134	5
<b>Europe</b>	<b>2016</b>	<b>420,736</b>	<b>209,754</b>	<b>181,172</b>	<b>-14,481</b>	<b>463,798</b>	<b>621</b>
	<b>2017</b>	<b>416,826</b>	<b>222,126</b>	<b>192,462</b>	<b>4,967</b>	<b>441,524</b>	<b>591</b>
	<b>2018</b>	<b>458,944</b>	<b>216,669</b>	<b>228,159</b>	<b>5,660</b>	<b>441,795</b>	<b>590</b>
	<b>2019</b>	<b>450,673</b>	<b>182,022</b>	<b>217,447</b>	<b>17,821</b>	<b>397,427</b>	<b>530</b>
Albania	2016	4	81	..	..	85	30
	2017	46	107	30	..	123	43
	2018	98	129	2	..	224	78
	2019	31	116	..	..	148	51
Andorra	2016	..	0	..	..	0	*2
	2017	..	0	..	..	0	*2
	2018	..	0	..	..	0	*1
	2019	..	0	..	..	0	*2
Austria	2016	..	3,282	0	-249	3,531	404
	2017	..	3,387	1	5	3,381	383
	2018	..	3,087	3	-144	3,228	363
	2019	..	3,078	0	-48	3,126	349
Belarus	2016	..	724	36	70	618	65
	2017	..	762	167	-49	644	68
	2018	..	1,652	854	153	645	68
	2019	..	4,015	3,243	23	749	79
Belgium	2016	14	3,531	65	-223	3,703	326
	2017	16	3,427	81	-210	3,572	313
	2018	16	3,832	46	232	3,570	311
	2019	13	3,707	85	120	3,515	305
Bosnia and Herzegovina	2016	..	1,302	0	64	1,238	366
	2017	..	1,361	0	91	1,270	379
	2018	..	1,457	..	0	1,457	438
	2019	..	1,531	..	180	1,351	409
Bulgaria	2016	52	762	0	-87	901	126
	2017	41	898	0	15	924	130
	2018	334	836	..	166	1,004	142
	2019	303	558	..	-96	958	137
Croatia	2016	..	1,045	..	25	1,020	242
	2017	..	590	..	5	584	140
	2018	..	499	..	-50	549	132
	2019	..	710	..	51	658	159

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Czechia	2016	7,015	3,565	3,516	-824	7,888	743
	2017	5,601	3,844	2,414	-108	7,138	671
	2018	4,562	3,809	1,954	-140	6,557	615
	2019	3,540	3,780	1,435	357	5,529	517
Denmark	2016	..	2,886	21	-522	3,387	593
	2017	..	3,074	..	423	2,651	462
	2018	..	2,756	17	54	2,685	467
	2019	..	2,387	46	817	1,525	264
Estonia	2016	..	23	..	-4	27	21
	2017	..	45	..	-3	48	36
	2018	..	44	..	-6	50	38
	2019	..	49	..	-2	50	38
Finland	2016	..	4,012	..	-522	4,534	825
	2017	..	3,970	..	-445	4,415	801
	2018	..	4,109	..	-32	4,141	750
	2019	..	3,152	..	-146	3,298	596
France	2016	..	12,566	..	-1,036	13,602	203
	2017	..	14,956	..	96	14,859	222
	2018	..	13,364	..	181	13,183	196
	2019	..	10,225	..	-116	10,340	153
Germany	2016	4,078	57,757	278	1,067	60,490	736
	2017	3,836	50,486	222	552	53,548	648
	2018	2,761	44,816	202	-3,322	50,697	610
	2019	0	40,993	462	1,979	38,552	462
Greece	2016	..	312	..	-21	333	31
	2017	..	411	..	35	376	36
	2018	..	379	..	-55	434	41
	2019	..	327	..	15	311	30
Hungary	2016	..	1,384	..	-17	1,401	144
	2017	..	1,545	..	27	1,518	156
	2018	..	1,542	..	41	1,501	155
	2019	..	1,366	..	-16	1,382	143
Iceland	2016	..	125	..	..	125	376
	2017	..	127	..	..	127	380
	2018	..	149	..	..	149	441
	2019	..	150	..	..	150	441
Ireland	2016	..	1,951	10	-338	2,279	485
	2017	..	2,068	12	187	1,869	393
	2018	..	1,449	..	161	1,288	267
	2019	..	315	..	-260	574	118
Italy	2016	0	16,577	0	-337	16,914	279
	2017	..	15,226	0	40	15,186	250
	2018	..	14,149	3	170	13,976	230
	2019	..	10,261	..	-165	10,426	172
Kosovo	2016	..	2	0	..	2	1
	2017	..	2	..	..	2	1
	2018	..	1	..	..	1	1
	2019	..	1	..	..	1	0
Latvia	2016	..	67	6	-10	71	36
	2017	..	68	6	-8	70	36
	2018	..	82	10	-7	78	41
	2019	..	79	5	7	67	35

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Lithuania	2016	..	225	0	-21	246	85
	2017	..	272	..	22	250	88
	2018	..	262	..	-3	265	95
	2019	..	285	..	24	261	95
Luxembourg	2016	..	81	..	..	81	140
	2017	..	68	..	..	68	114
	2018	..	63	..	..	63	105
	2019	..	64	..	..	64	104
Netherlands	2016	..	16,350	..	-127	16,477	970
	2017	..	14,871	..	188	14,683	863
	2018	..	13,024	..	-58	13,082	767
	2019	..	10,367	..	187	10,180	595
North Macedonia	2016	..	27	0	-3	29	14
	2017	..	33	0	0	33	16
	2018	..	101	1	10	91	44
	2019	..	81	0	-2	84	40
Norway	2016	818	660	912	-146	712	136
	2017	131	781	75	5	832	157
	2018	150	746	113	-10	793	149
	2019	121	794	79	7	829	154
Poland	2016	70,783	8,279	9,076	-4,732	74,718	1,967
	2017	65,975	12,803	7,036	-2,043	73,785	1,944
	2018	63,857	19,195	4,857	3,360	74,834	1,973
	2019	62,081	16,623	4,373	5,558	68,774	1,815
Portugal	2016	..	4,911	..	110	4,801	465
	2017	..	5,712	..	304	5,408	526
	2018	..	4,497	..	-50	4,546	443
	2019	..	2,575	..	469	2,106	206
Republic of Moldova	2016	..	99	..	-26	125	31
	2017	..	200	..	24	176	43
	2018	..	144	..	7	137	34
	2019	..	147	..	-16	163	40
Romania	2016	..	157	0	21	136	7
	2017	..	194	0	4	190	10
	2018	..	186	..	6	180	9
	2019	..	161	..	-4	164	8
Russian Federation	2016	292,862	*21,723	165,835	698	148,052	1,019
	2017	312,811	*26,722	181,022	9,643	148,868	1,023
	2018	358,614	*26,065	*219,125	7,430	158,124	1,085
	2019	357,564	*21,923	205,394	6,905	167,189	1,146
Serbia	2016	..	179	0	-10	189	27
	2017	..	151	..	1	150	21
	2018	..	260	..	-2	262	37
	2019	..	253	..	-4	257	37
Slovakia	2016	..	3,557	..	-109	3,666	674
	2017	..	3,808	..	4	3,804	698
	2018	..	3,962	..	42	3,920	719
	2019	..	3,344	..	92	3,252	596
Slovenia	2016	..	13	0	2	11	5
	2017	..	11	..	0	11	5
	2018	..	10	..	-1	11	5
	2019	..	11	..	0	11	5

Table 5

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Spain	2016	1,070	13,830	453	-3,365	17,812	382
	2017	1,161	19,089	264	-1,235	21,221	455
	2018	771	15,773	276	-2,668	18,936	406
	2019	..	8,586	1,525	-580	7,641	163
Sweden	2016	..	3,100	0	427	2,673	272
	2017	..	2,731	..	130	2,601	263
	2018	..	2,718	..	-78	2,796	280
	2019	..	2,368	..	-51	2,419	241
Switzerland	2016	..	47	..	-4	51	6
	2017	..	52	0	-2	53	6
	2018	..	15	0	-38	53	6
	2019	..	29	0	-19	48	6
Ukraine	2016	39,862	15,648	520	1,142	53,848	1,204
	2017	24,167	19,778	636	645	42,664	959
	2018	25,202	21,387	63	140	46,386	1,048
	2019	24,854	21,082	61	2,571	43,304	984
United Kingdom	2016	4,178	8,914	444	-5,374	18,022	272
	2017	3,041	8,497	495	-3,378	14,421	216
	2018	2,580	10,121	634	168	11,899	177
	2019	2,166	6,529	740	-16	7,971	118
<b>Oceania</b>	<b>2016</b>	<b>413,961</b>	<b>1,186</b>	<b>390,488</b>	<b>-6,913</b>	<b>31,572</b>	<b>781</b>
	<b>2017</b>	<b>415,891</b>	<b>1,222</b>	<b>380,080</b>	<b>4,859</b>	<b>32,174</b>	<b>785</b>
	<b>2018</b>	<b>412,253</b>	<b>1,425</b>	<b>383,194</b>	<b>-2,722</b>	<b>33,206</b>	<b>799</b>
	<b>2019</b>	<b>435,273</b>	<b>1,323</b>	<b>394,374</b>	<b>8,931</b>	<b>33,291</b>	<b>790</b>
Australia	2016	412,756	30	389,301	-6,884	30,369	1,252
	2017	414,679	103	378,938	5,003	30,841	1,254
	2018	410,934	228	381,944	-2,807	32,025	1,286
	2019	433,982	182	392,934	9,126	32,104	1,274
New Caledonia	2016	..	1,082	..	51	1,031	3,759
	2017	..	1,045	..	-119	1,164	4,199
	2018	..	1,122	..	61	1,061	3,790
	2019	..	1,028	..	-27	1,056	3,733
New Zealand	2016	1,205	74	1,187	-80	172	37
	2017	1,212	74	1,142	-25	170	36
	2018	1,319	75	1,250	24	120	25
	2019	1,291	112	1,440	-168	131	27



Table 6

**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2018**

Importers	Exporters					
	World	Australia	Canada	China	Colombia	Indonesia
Austria	3,087	190	..	..	22	..
Belgium	3,832	1,189	..	..	17	..
Brazil	20,986	5,805	855	..	*2,578	..
Canada	6,303	..	..	..	1,234	..
Chile	11,463	1,027	194	..	8,202	..
China	282,098	88,712	3,129	..	334	37,612
China, Hong Kong SAR	10,884	306	123	..	..	8,889
Denmark	2,756	..	..	..	247	..
Finland	4,109	130	600	..	5	..
France	13,364	3,794	91	18	1,565	..
Germany	44,816	5,162	1,552	10	3,786	..
India	235,240	48,170	4,453	44	509	103,346
Israel	7,721	..	..	..	..	..
Italy	14,149	436	210	..	2,847	859
Japan	188,548	118,027	3,207	1,549	822	30,987
Korea, Republic of	125,750	47,555	9,108	2,357	2,431	30,168
Malaysia	32,904	6,215	81	144	88	*24,298
Mexico	7,271	..	..	4	5,531	..
Morocco	8,459	..	..	..	71	..
Netherlands	13,024	2,160	129	9	1,097	72
Pakistan	15,686	..	59	5	100	3,399
Poland	19,195	1,478	214	3	1,460	18
Portugal	4,497	..	45	..	3,684	..
Russian Federation	26,065	..	..	..	45	..
Slovakia	3,962	..	364	..	35	..
Spain	15,773	1,334	73	11	3,421	4,494
Thailand	25,739	3,805	..	..	5	19,994
Turkey	38,329	2,048	445	32	18,946	..
Ukraine	21,387	80	360	..	..	..
United Kingdom	10,121	630	..	4	635	..
United States	3,813	..	618	22	2,290	721

**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2018**

Exporters					
Kazakhstan	Mongolia	Mozambique	Russian Federation	South Africa	United States
..	..	167	214	..	508
..	..	..	1,531	198	762
..	..	614	2,607	734	7,793
..	..	..	120	..	4,921
..	..	..	..	..	2,037
..	*31,472	..	26,220	..	2,036
..	..	..	1,362	..	..
..	..	..	1,878	526	45
..	..	..	2,713	..	634
..	..	405	4,209	830	1,915
87	..	789	19,037	1,044	9,747
..	..	6,852	4,321	33,986	15,509
..	..	..	..	..	..
623	..	..	5,079	296	3,521
..	..	..	19,471	155	8,426
..	..	613	22,828	5,371	4,869
..	..	..	2,069	8	1
..	..	..	8	..	1,706
..	..	..	3,911	484	3,888
187	..	236	5,032	107	3,863
..	..	776	494	9,565	174
504	..	552	13,006	..	1,535
..	..	..	71	..	692
18,070	..	..	..	..	..
..	..	393	1,532	..	213
..	..	..	3,645	890	1,457
..	..	..	549	..	456
..	..	132	12,339	1,596	2,694
421	..	..	15,009	245	4,370
..	..	..	4,694	118	3,573
..	..	..	72	43	..

Table 6

**International trade of hard coal**  
**(Principal importers/exporters)**

Thousand metric tons

**2019**

Importers	Exporters					
	World	Australia	Canada	China	Colombia	Indonesia
Austria	3,078	191	..	..	1	..
Belgium	3,707	1,188	29	..	..	..
Brazil	18,859	4,310	756	1	*3,274	..
Canada	7,065	..	..	..	745	..
Chile	13,107	1,036	215	..	8,747	..
China	299,770	87,719	3,323	..	1,689	47,842
China, Hong Kong SAR	10,035	78	..	..	..	7,886
Denmark	2,387	..	..	..	56	..
Finland	3,152	..	463	..	15	..
France	10,225	3,498	55	1	876	..
Germany	40,993	4,771	1,263	9	1,870	..
India	248,537	50,870	4,943	207	517	122,143
Israel	8,417	..	..	..	..	..
Italy	10,261	498	206	..	1,754	59
Japan	186,892	115,561	4,910	1,808	612	32,643
Korea, Republic of	127,380	45,798	11,338	1,722	4,435	24,660
Malaysia	33,045	7,862	..	481	54	..
Mexico	8,085	133	..	3	5,899	..
Morocco	10,113	..	..	..	70	..
Netherlands	10,367	2,101	..	5	575	266
Pakistan	16,422	..	..	13	..	3,034
Poland	16,623	2,117	66	3	1,192	..
Portugal	2,575	..	..	..	1,790	..
Russian Federation	21,923	..	..	..	42	..
Slovakia	3,344	..	295	..	105	..
Spain	8,586	827	..	10	1,150	2,270
Thailand	22,463	3,823	..	1	164	10,366
Turkey	38,141	2,905	754	..	18,295	80
Ukraine	21,082	413	..	..	525	76
United Kingdom	6,529	423	..	7	1,078	..
United States	4,180	..	661	49	2,928	424

### International trade of hard coal (Principal importers/exporters)

Thousand metric tons

**2019**

Exporters					
Kazakhstan	Mongolia	Mozambique	Russian Federation	South Africa	United States
..	..	54	348	..	620
..	..	..	1,472	186	676
..	..	532	2,613	487	6,886
..	..	..	153	..	6,141
..	..	..	81	..	989
150	*32,192	..	29,176	..	1,181
..	..	..	1,131	..	..
..	..	..	2,099	80	60
..	..	..	2,008	..	653
66	..	282	2,745	1,177	1,390
1,169	..	571	19,140	803	8,584
..	..	5,741	7,461	39,496	12,044
..	..	..	..	..	..
513	..	..	4,407	72	2,403
162	..	..	21,440	372	8,716
..	..	467	25,557	3,414	3,365
..	..	..	2,056	7	3
..	..	..	1,423	..	611
..	..	..	5,883	578	2,988
..	..	184	4,269	155	2,669
..	..	50	51	12,154	..
867	..	393	10,734	222	821
..	..	..	166	..	615
*18,737	..	..	..	..	..
..	..	365	1,314	..	424
..	..	..	2,739	502	653
..	..	..	915	..	1
2	..	109	13,544	1,046	1,325
876	..	..	14,452	..	4,462
64	..	..	2,421	158	1,769
..	..	..	62	22	..



### Production, trade and supply of brown coal and oil shale

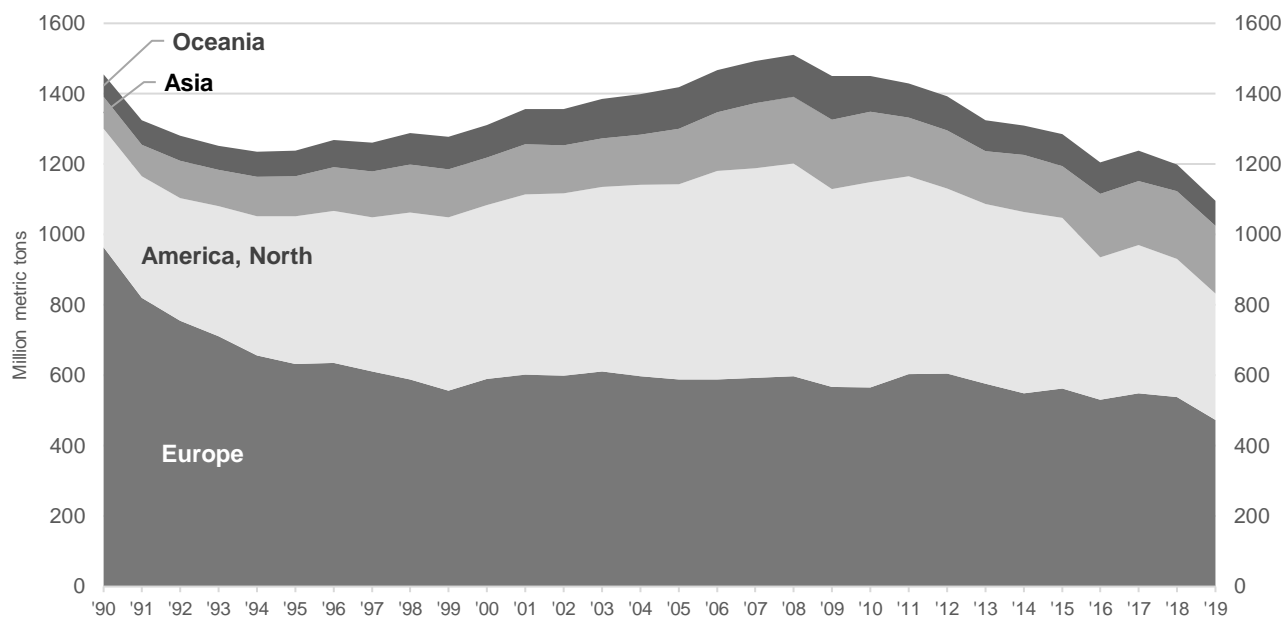
Thousand metric tons and kilograms per capita

#### Table Notes

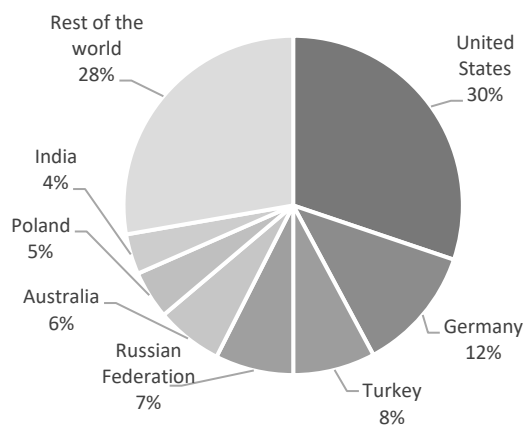
Data refer to brown coal and oil shale.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 15: Production of brown coal and oil shale by region, 1990-2019**



**Figure 16: Major brown coal producing countries, 2019**



**Figure 17: Major brown coal consuming countries, 2019**

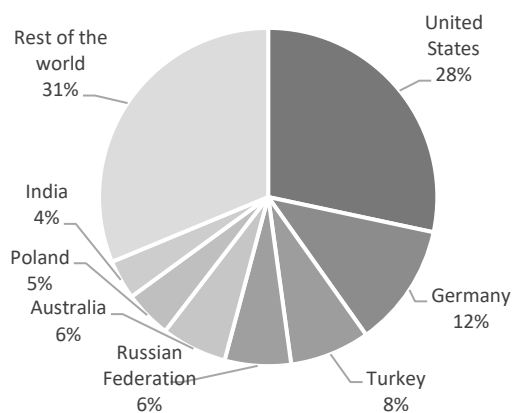


Table 7

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>1,204,600</b>	<b>52,664</b>	<b>19,158</b>	<b>-21,713</b>	<b>1,259,820</b>	<b>169</b>
	<b>2017</b>	<b>1,238,076</b>	<b>58,395</b>	<b>27,646</b>	<b>-10,451</b>	<b>1,279,276</b>	<b>169</b>
	<b>2018</b>	<b>1,198,598</b>	<b>61,518</b>	<b>28,765</b>	<b>-19,356</b>	<b>1,250,708</b>	<b>164</b>
	<b>2019</b>	<b>1,096,294</b>	<b>63,719</b>	<b>33,341</b>	<b>15,036</b>	<b>1,111,635</b>	<b>144</b>
<b>America, North</b>	<b>2016</b>	<b>405,533</b>	<b>4,986</b>	<b>2,994</b>	<b>-18,794</b>	<b>426,319</b>	<b>744</b>
	<b>2017</b>	<b>420,591</b>	<b>5,049</b>	<b>7,968</b>	<b>-6,865</b>	<b>424,537</b>	<b>735</b>
	<b>2018</b>	<b>392,265</b>	<b>4,891</b>	<b>7,265</b>	<b>-20,004</b>	<b>409,895</b>	<b>704</b>
	<b>2019</b>	<b>358,555</b>	<b>4,238</b>	<b>6,024</b>	<b>11,615</b>	<b>345,154</b>	<b>588</b>
Canada	2016	31,499	1,272	101	-92	32,762	900
	2017	30,937	1,404	135	-669	32,875	895
	2018	25,101	1,292	291	95	26,007	701
	2019	22,039	926	128	412	22,425	599
Mexico	2016	8,130	1,624	..	450	9,304	75
	2017	7,171	2,178	..	2,874	6,475	52
	2018	6,971	2,010	..	-321	9,302	74
	2019	5,626	1,417	..	-622	7,665	60
United States	2016	365,904	2,090	2,893	-19,152	384,253	1,190
	2017	382,483	1,467	7,833	-9,070	385,187	1,185
	2018	360,193	1,589	6,974	-19,778	374,586	1,145
	2019	330,890	1,895	5,896	11,825	315,064	957
<b>Asia</b>	<b>2016</b>	<b>179,465</b>	<b>41,503</b>	<b>9,207</b>	<b>2,094</b>	<b>209,667</b>	<b>47</b>
	<b>2017</b>	<b>181,901</b>	<b>47,150</b>	<b>9,277</b>	<b>-1,618</b>	<b>221,393</b>	<b>49</b>
	<b>2018</b>	<b>191,514</b>	<b>50,729</b>	<b>9,122</b>	<b>1,548</b>	<b>231,573</b>	<b>51</b>
	<b>2019</b>	<b>192,369</b>	<b>52,934</b>	<b>13,908</b>	<b>-463</b>	<b>231,858</b>	<b>50</b>
Brunei Darussalam	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	341	..	..	341	787
Cambodia	2016	..	1,629	..	..	1,629	103
	2017	42	1,884	..	..	1,926	120
	2018	25	2,021	..	..	2,046	126
	2019	27	2,524	..	196	2,355	143
Georgia	2016	297	..	2	9	286	71
	2017	268	..	2	2	264	66
	2018	138	..	2	-2	138	34
	2019	15	..	1	11	4	1
India	2016	45,230	19	5	-2,074	47,318	36
	2017	46,255	10	4	327	45,934	34
	2018	44,283	19	40	1,538	42,724	32
	2019	42,103	54	93	177	41,887	31
Israel	2016	423	..	..	..	423	52
	2017	449	..	..	..	449	54
	2018	415	..	..	..	415	49
	2019	403	..	..	..	403	47
Kazakhstan	2016	5,750	1	2,204	177	3,370	189
	2017	6,095	..	2,231	-554	4,418	244
	2018	6,561	0	2,757	5	3,799	207
	2019	5,929	0	2,698	36	3,195	172
Korea, Dem.Ppl's.Rep.	2016	2,755	..	..	..	2,755	109
	2017	1,921	..	..	..	1,921	76
	2018	1,602	..	..	..	1,602	63
	2019	1,791	..	..	..	1,791	70

Table 7

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Korea, Republic of	2016	..	6,569	..	..	6,569	129
	2017	..	9,769	..	..	9,769	191
	2018	..	9,828	..	..	9,828	192
	2019	..	9,449	..	..	9,449	184
Kyrgyzstan	2016	1,603	5	91	225	1,292	213
	2017	1,624	3	272	139	1,216	196
	2018	2,071	4	367	-185	1,893	300
	2019	2,277	14	448	-26	1,869	291
Lao People's Dem. Rep.	2016	13,097	..	..	1,771	11,326	1,654
	2017	13,440	..	209	-1,116	14,347	2,063
	2018	15,903	..	413	*-1,061	16,551	2,344
	2019	15,264	..	*550	*-454	15,168	2,116
Mongolia	2016	6,672	..	97	-160	6,735	2,203
	2017	6,783	..	408	58	6,317	2,029
	2018	7,015	..	507	-20	6,529	2,060
	2019	6,977	..	137	..	6,840	2,121
Other Asia	2016	..	12,565	..	494	12,071	511
	2017	..	12,362	..	511	11,851	501
	2018	..	11,606	..	-340	11,946	504
	2019	..	11,751	..	265	11,485	483
Philippines	2016	11,211	20,030	6,809	-362	24,794	239
	2017	11,932	22,268	6,149	-1,269	29,320	279
	2018	11,755	26,301	5,035	2,044	30,976	290
	2019	13,751	27,692	9,980	-1,658	33,122	306
Tajikistan	2016	50	..	..	..	50	6
	2017	53	1	..	..	54	6
	2018	65	1	..	..	66	7
	2019	65	9	..	..	74	8
Thailand	2016	16,979	55	..	92	16,942	246
	2017	16,259	193	..	163	16,289	235
	2018	14,852	226	..	491	14,587	210
	2019	14,078	383	..	375	14,086	202
Turkey	2016	71,691	..	..	2,184	69,507	871
	2017	72,864	..	1	-72	72,935	899
	2018	82,835	..	1	353	82,481	1,002
	2019	85,883	..	1	811	85,071	1,020
Uzbekistan	2016	3,707	630	0	-263	4,600	146
	2017	3,915	660	0	193	4,383	137
	2018	3,993	722	0	-1,275	5,990	184
	2019	3,806	717	0	-197	4,720	143
<b>Europe</b>	<b>2016</b>	<b>530,354</b>	<b>5,797</b>	<b>6,957</b>	<b>-4,833</b>	<b>534,027</b>	<b>715</b>
	<b>2017</b>	<b>549,089</b>	<b>5,804</b>	<b>10,358</b>	<b>-1,784</b>	<b>546,319</b>	<b>731</b>
	<b>2018</b>	<b>538,751</b>	<b>5,373</b>	<b>12,351</b>	<b>-990</b>	<b>532,763</b>	<b>712</b>
	<b>2019</b>	<b>473,840</b>	<b>5,585</b>	<b>13,400</b>	<b>3,806</b>	<b>462,219</b>	<b>617</b>
Austria	2016	..	79	0	0	79	9
	2017	..	76	0	..	76	9
	2018	..	80	0	..	79	9
	2019	..	68	0	..	68	8
Belgium	2016	65	5	1	2	67	6
	2017	53	14	7	8	53	5
	2018	78	3	1	-3	83	7
	2019	87	1	1	-5	92	8



Table 7

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bosnia and Herzegovina	2016	13,644	87	258	-326	13,799	4,075
	2017	14,084	98	239	-186	14,129	4,216
	2018	14,505	106	195	262	14,154	4,258
	2019	13,377	117	163	489	12,842	3,890
Bulgaria	2016	31,231	0	17	213	31,001	4,335
	2017	34,277	1	22	583	33,672	4,741
	2018	30,263	..	43	54	30,166	4,278
	2019	28,040	..	50	76	27,914	3,988
Croatia	2016	..	44	..	-6	50	12
	2017	..	49	..	..	49	12
	2018	..	36	..	..	36	9
	2019	..	31	..	..	31	7
Czechia	2016	38,528	138	855	-405	38,216	3,599
	2017	39,306	205	941	-91	38,661	3,633
	2018	39,204	185	838	-243	38,794	3,637
	2019	37,486	62	685	670	36,193	3,386
Estonia	2016	17,057	..	..	-2,837	19,894	15,111
	2017	21,625	..	..	-272	21,897	16,596
	2018	21,883	..	..	985	20,898	15,797
	2019	15,877	..	..	233	15,644	11,801
France	2016	..	99	..	-8	107	2
	2017	..	61	..	11	50	1
	2018	..	67	..	-9	77	1
	2019	..	55	..	-4	59	1
Germany	2016	171,547	26	0	532	171,041	2,081
	2017	171,286	30	..	102	171,214	2,071
	2018	166,258	21	..	-920	167,199	2,011
	2019	131,314	24	..	-113	131,451	1,574
Greece	2016	32,638	0	..	-1,592	34,230	3,225
	2017	37,731	0	..	-330	38,061	3,601
	2018	36,489	..	..	-180	36,669	3,485
	2019	27,375	..	..	754	26,621	2,542
Hungary	2016	9,216	178	211	3	9,180	941
	2017	7,972	207	2	34	8,143	837
	2018	7,898	189	3	-91	8,175	842
	2019	6,847	144	4	74	6,913	714
Italy	2016	..	130	..	..	130	2
	2017	..	11	..	..	11	0
	2018	..	2	..	..	2	0
	2019	..	1	..	..	1	0
Kosovo	2016	8,801	2	18	-267	9,052	5,092
	2017	7,575	9	14	-33	7,603	4,245
	2018	7,661	9	9	-32	7,693	4,281
	2019	8,063	11	27	-26	8,073	4,499
Lithuania	2016	..	0	0	-1	1	0
	2017	..	3	..	0	3	1
	2018	..	2	..	0	1	0
	2019	..	..	..	-1	1	0
Montenegro	2016	1,398	5	42	..	1,361	2,170
	2017	1,475	5	97	..	1,383	2,204
	2018	1,596	5	94	-65	1,573	2,505
	2019	1,605	5	111	6	1,494	2,379

Table 7

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Netherlands	2016	..	38	..	0	38	2
	2017	..	51	..	0	51	3
	2018	..	48	..	0	48	3
	2019	..	10	..	0	10	1
North Macedonia	2016	5,152	192	2	-72	5,414	2,602
	2017	5,094	127	2	-153	5,372	2,580
	2018	4,995	112	0	287	4,820	2,314
	2019	5,477	146	1	-277	5,900	2,832
Poland	2016	60,246	289	212	-67	60,390	1,590
	2017	61,161	328	256	49	61,184	1,612
	2018	58,571	276	287	-24	58,583	1,545
	2019	50,329	290	148	10	50,461	1,332
Romania	2016	22,980	854	3	-46	23,877	1,206
	2017	25,752	669	2	201	26,219	1,334
	2018	23,647	588	6	-724	24,953	1,279
	2019	21,652	882	0	315	22,218	1,147
Russian Federation	2016	73,485	2,296	5,272	1,079	69,430	478
	2017	74,886	2,321	8,701	-1,662	70,168	482
	2018	80,478	2,160	10,796	25	71,817	493
	2019	81,886	2,338	12,116	1,674	70,434	483
Serbia	2016	38,440	336	66	-282	38,992	5,510
	2017	39,806	488	74	42	40,178	5,708
	2018	37,649	369	80	-560	38,498	5,495
	2019	38,881	378	94	517	38,648	5,539
Slovakia	2016	1,847	494	..	-79	2,420	445
	2017	1,834	556	..	41	2,349	431
	2018	1,502	595	..	43	2,054	377
	2019	1,465	507	..	45	1,927	353
Slovenia	2016	3,349	372	..	-27	3,748	1,807
	2017	3,356	372	..	-14	3,742	1,802
	2018	3,217	411	..	-51	3,678	1,770
	2019	3,143	418	..	97	3,464	1,666
Spain	2016	730	..	..	-650	1,380	30
	2017	1,816	..	..	-114	1,930	41
	2018	1,630	..	..	250	1,380	30
	2019	..	..	..	-729	729	16
Switzerland	2016	..	133	..	3	130	16
	2017	..	123	..	1	122	14
	2018	..	110	..	3	107	13
	2019	..	97	..	1	96	11
Ukraine	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	1,228	..	..	2	1,226	28
	2019	935	..	..	..	935	21
<b>Oceania</b>	<b>2016</b>	<b>89,248</b>	<b>379</b>	<b>0</b>	<b>-180</b>	<b>89,807</b>	<b>2,221</b>
	<b>2017</b>	<b>86,494</b>	<b>392</b>	<b>44</b>	<b>-184</b>	<b>87,027</b>	<b>2,122</b>
	<b>2018</b>	<b>76,068</b>	<b>526</b>	<b>28</b>	<b>90</b>	<b>76,476</b>	<b>1,840</b>
	<b>2019</b>	<b>71,530</b>	<b>962</b>	<b>10</b>	<b>79</b>	<b>72,404</b>	<b>1,719</b>
Australia	2016	87,587	..	..	..	87,587	3,610
	2017	84,788	..	..	..	84,788	3,449
	2018	74,156	..	..	..	74,156	2,978
	2019	69,787	..	..	..	69,787	2,769

**Table 7****Production, trade and supply of brown coal and oil shale**

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
New Zealand	2016	1,661	379	0	-180	2,220	476
	2017	1,706	392	44	-184	2,239	476
	2018	1,912	526	28	90	2,320	489
	2019	1,743	962	10	79	2,617	547





### Production, trade and supply of coke

Thousand metric tons and kilograms per capita

#### Table Notes

Data comprise coal tar, gas coke and coke oven coke.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

Figure 18: Per capita supply of coke by region, 2019

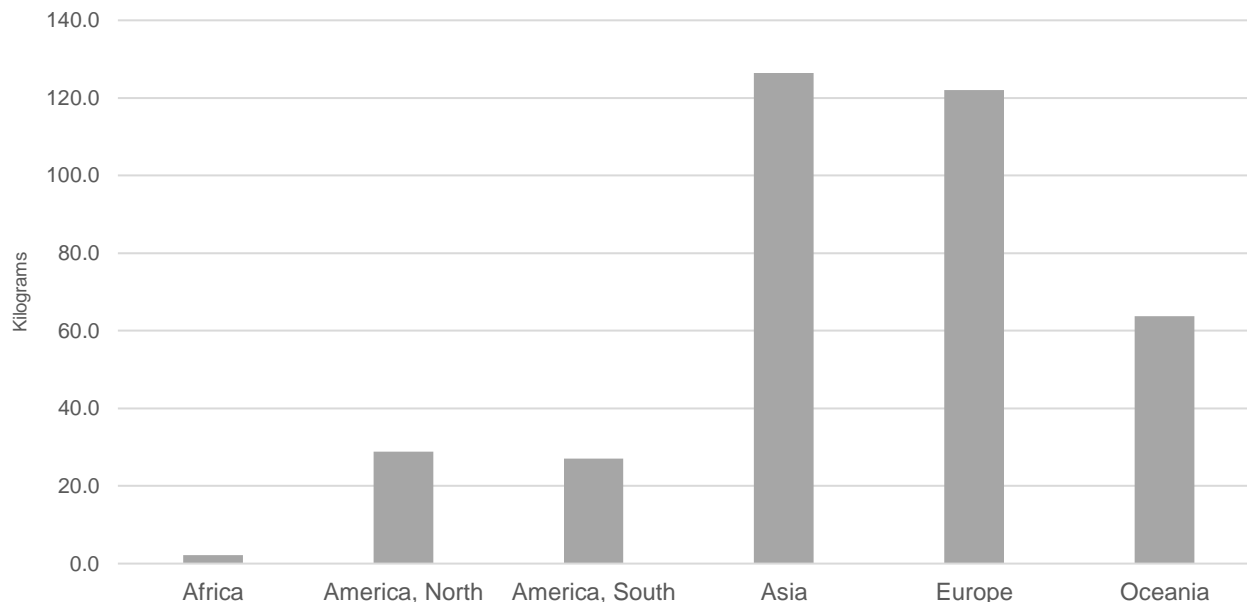


Figure 19: Major coke producing countries, 2019

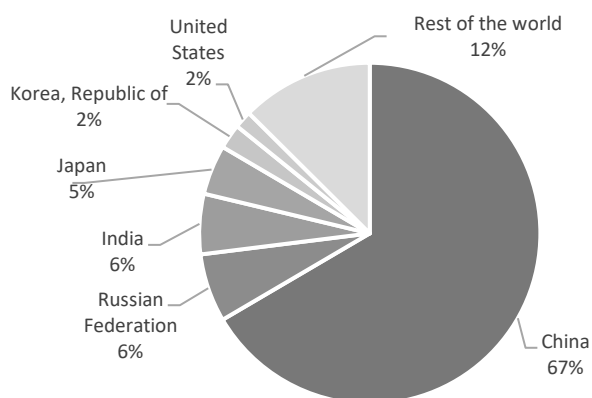


Figure 20: Major coke consuming countries, 2019

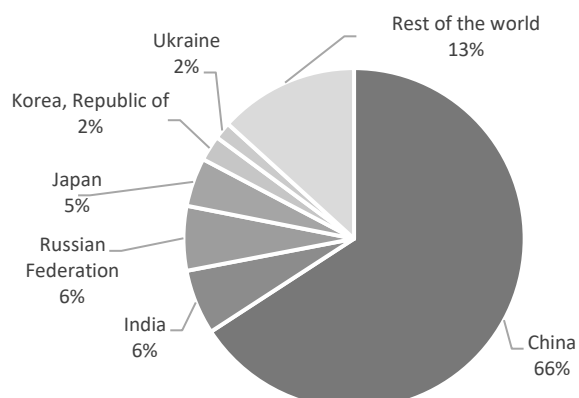


Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>655,674</b>	<b>26,868</b>	<b>28,400</b>	<b>-15,771</b>	<b>669,913</b>	<b>90</b>
	<b>2017</b>	<b>636,531</b>	<b>27,090</b>	<b>27,583</b>	<b>-13,750</b>	<b>649,788</b>	<b>86</b>
	<b>2018</b>	<b>672,247</b>	<b>28,240</b>	<b>29,619</b>	<b>6,319</b>	<b>664,550</b>	<b>87</b>
	<b>2019</b>	<b>710,628</b>	<b>25,151</b>	<b>26,338</b>	<b>2,577</b>	<b>706,864</b>	<b>92</b>
<b>Africa</b>	<b>2016</b>	<b>2,695</b>	<b>515</b>	<b>281</b>	<b>78</b>	<b>2,851</b>	<b>2</b>
	<b>2017</b>	<b>2,089</b>	<b>538</b>	<b>236</b>	<b>-26</b>	<b>2,416</b>	<b>2</b>
	<b>2018</b>	<b>2,794</b>	<b>716</b>	<b>106</b>	<b>-90</b>	<b>3,495</b>	<b>3</b>
	<b>2019</b>	<b>2,618</b>	<b>529</b>	<b>288</b>	<b>-3</b>	<b>2,863</b>	<b>2</b>
Algeria	2016	..	78	..	78	0	0
	2017	..	301	..	-26	327	8
	2018	..	500	..	-48	548	13
	2019	..	437	..	-3	440	10
Egypt	2016	*222	*353	*66	0	*509	*5
	2017	*518	*153	*154	..	*517	*5
	2018	296	*116	..	-42	454	5
	2019	509	..	168	..	342	3
Madagascar	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	*24	..	..	*24	*1
	2019	..	*24	..	..	*24	*1
South Africa	2016	2,166	..	..	..	2,166	39
	2017	1,390	..	..	..	1,390	24
	2018	2,281	..	..	..	2,281	39
	2019	1,880	..	..	..	1,880	32
Zambia	2016	..	*52	*2	..	*50	*3
	2017	..	*52	*2	..	*50	*3
	2018	..	*52	*2	..	*50	*3
	2019	..	*52	*2	..	*50	*3
Zimbabwe	2016	307	32	213	..	126	9
	2017	181	32	80	..	132	9
	2018	217	24	104	..	138	10
	2019	229	16	118	..	127	9
<b>America, North</b>	<b>2016</b>	<b>14,411</b>	<b>2,554</b>	<b>951</b>	<b>-583</b>	<b>16,597</b>	<b>29</b>
	<b>2017</b>	<b>15,333</b>	<b>2,453</b>	<b>1,201</b>	<b>-260</b>	<b>16,845</b>	<b>29</b>
	<b>2018</b>	<b>16,299</b>	<b>2,414</b>	<b>1,127</b>	<b>-290</b>	<b>17,876</b>	<b>31</b>
	<b>2019</b>	<b>15,162</b>	<b>2,624</b>	<b>917</b>	<b>-37</b>	<b>16,906</b>	<b>29</b>
Bermuda	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	1
	2019	..	0	..	..	0	0
Canada	2016	2,194	1,236	44	172	3,214	88
	2017	2,203	1,211	5	-241	3,650	99
	2018	2,520	1,101	39	-105	3,687	99
	2019	2,428	1,298	39	-115	3,802	102
Cuba	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	*1	..	..	*1	0
El Salvador	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0

Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mexico	2016	1,462	1,109	..	..	2,571	21
	2017	1,384	1,187	99	..	2,472	20
	2018	1,254	1,205	44	..	2,415	19
	2019	1,059	1,219	..	..	2,278	18
United States	2016	10,755	207	907	-755	10,810	33
	2017	11,746	53	1,097	-19	10,721	33
	2018	12,525	106	1,044	-185	11,772	36
	2019	11,675	105	878	78	10,824	33
<b>America, South</b>	<b>2016</b>	<b>12,085</b>	<b>1,233</b>	<b>1,919</b>	<b>-16</b>	<b>11,416</b>	<b>27</b>
	<b>2017</b>	<b>13,524</b>	<b>1,603</b>	<b>2,574</b>	<b>96</b>	<b>12,457</b>	<b>30</b>
	<b>2018</b>	<b>14,499</b>	<b>1,918</b>	<b>3,129</b>	<b>582</b>	<b>12,705</b>	<b>30</b>
	<b>2019</b>	<b>13,380</b>	<b>1,433</b>	<b>3,199</b>	<b>63</b>	<b>11,551</b>	<b>27</b>
Argentina	2016	617	..	..	..	617	14
	2017	716	..	..	..	716	16
	2018	792	..	..	..	792	18
	2019	541	..	..	..	541	12
Brazil	2016	9,233	1,107	..	23	10,317	50
	2017	9,837	1,538	..	113	11,262	54
	2018	10,159	1,839	..	532	11,466	55
	2019	9,260	1,307	..	47	10,520	50
Chile	2016	418	0	146	-72	344	19
	2017	386	0	52	-3	337	18
	2018	410	..	31	49	329	18
	2019	391	1	52	-31	371	20
Colombia	2016	1,817	..	1,773	..	44	1
	2017	2,585	..	2,522	..	63	1
	2018	3,138	..	3,099	..	40	1
	2019	3,188	..	3,147	..	40	1
Guyana	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	19	..	..	19	25
Peru	2016	..	126	0	33	93	3
	2017	..	65	0	-14	79	3
	2018	..	79	0	1	78	2
	2019	..	105	0	47	58	2
<b>Asia</b>	<b>2016</b>	<b>529,925</b>	<b>10,281</b>	<b>11,575</b>	<b>-15,464</b>	<b>544,096</b>	<b>122</b>
	<b>2017</b>	<b>510,811</b>	<b>10,530</b>	<b>9,941</b>	<b>-13,820</b>	<b>525,220</b>	<b>116</b>
	<b>2018</b>	<b>556,685</b>	<b>11,363</b>	<b>11,589</b>	<b>5,396</b>	<b>551,063</b>	<b>121</b>
	<b>2019</b>	<b>583,096</b>	<b>8,767</b>	<b>8,762</b>	<b>1,650</b>	<b>581,451</b>	<b>126</b>
Afghanistan	2016	*66	*200	*66	..	*200	*6
	2017	*67	*203	*67	..	*203	*6
	2018	*67	*203	*67	..	*203	*5
	2019	*67	*203	*67	..	*203	*5
China	2016	449,115	1	10,119	-15,290	454,286	321
	2017	431,684	10	8,079	-13,780	437,395	308
	2018	447,514	91	9,758	5,268	432,579	303
	2019	472,958	523	6,523	1,622	465,337	325
Georgia	2016	..	147	0	21	126	31
	2017	..	135	13	-18	140	35
	2018	..	162	..	3	159	40
	2019	..	145	..	12	133	33



Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
India	2016	12,503	4,346	89	..	16,760	13
	2017	11,330	4,585	108	..	15,807	12
	2018	*37,665	*4,931	*25	..	*42,571	*31
	2019	*40,623	*2,875	*22	..	*43,476	*32
Indonesia	2016	2,931	548	0	..	3,479	13
	2017	*2,795	523	0	..	*3,318	*13
	2018	*3,214	*170	0	..	*3,384	*13
	2019	*433	*160	0	..	*593	*2
Iran (Islamic Rep. of)	2016	1,199	26	1	1	1,223	15
	2017	1,317	122	51	1	1,387	17
	2018	1,400	354	91	..	1,663	20
	2019	1,192	354	361	-2	1,187	14
Japan	2016	33,957	2,035	1,027	77	34,888	273
	2017	33,401	1,273	1,232	-80	33,522	263
	2018	33,492	1,595	1,437	62	33,587	264
	2019	33,462	708	1,595	-33	32,608	257
Jordan	2016	..	28	..	..	28	3
	2017	..	44	..	..	44	5
	2018	..	64	..	..	64	6
	2019	..	65	..	..	65	6
Kazakhstan	2016	2,872	835	29	20	3,658	205
	2017	2,989	952	48	..	3,894	215
	2018	2,916	933	67	77	3,705	202
	2019	2,668	1,059	34	-49	3,742	202
Korea, Dem.Ppl's.Rep.	2016	..	200	..	..	200	8
	2017	..	179	..	..	179	7
	2018	..	133	..	..	133	5
	2019	..	112	..	..	112	4
Korea, Republic of	2016	16,572	340	..	..	16,912	332
	2017	16,600	335	..	..	16,934	331
	2018	17,468	324	..	..	17,792	348
	2019	16,762	308	..	..	17,070	333
Other Asia	2016	6,226	201	0	-7	6,434	272
	2017	6,056	274	46	-8	6,292	266
	2018	6,345	300	24	1	6,620	279
	2019	6,175	260	19	39	6,376	268
Philippines	2016	..	336	..	..	336	3
	2017	..	294	..	..	294	3
	2018	..	307	..	..	307	3
	2019	..	267	..	..	267	2
Syrian Arab Republic	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Thailand	2016	..	30	..	-36	66	1
	2017	..	88	..	30	58	1
	2018	..	18	..	-43	61	1
	2019	..	19	..	-50	69	1
Turkey	2016	4,374	590	135	-250	5,079	64
	2017	4,463	834	126	35	5,136	63
	2018	4,477	814	118	29	5,144	62
	2019	4,422	666	141	111	4,836	58

Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
United Arab Emirates	2016	..	1	0	..	1	0
	2017	..	2	0	..	2	0
	2018	..	25	0	..	25	3
	2019	..	5	0	..	5	0
Uzbekistan	2016	..	23	..	..	23	1
	2017	..	23	0	..	23	1
	2018	..	29	..	..	29	1
	2019	..	46	..	..	46	1
Viet Nam	2016	110	393	108	..	395	4
	2017	110	655	173	..	592	6
	2018	2,127	909	1	..	3,035	32
	2019	4,334	993	0	..	5,327	55
<b>Europe</b>	<b>2016</b>	<b>93,189</b>	<b>12,095</b>	<b>12,919</b>	<b>214</b>	<b>92,151</b>	<b>123</b>
	<b>2017</b>	<b>91,476</b>	<b>11,781</b>	<b>13,157</b>	<b>260</b>	<b>89,839</b>	<b>120</b>
	<b>2018</b>	<b>78,801</b>	<b>11,594</b>	<b>13,093</b>	<b>721</b>	<b>76,581</b>	<b>102</b>
	<b>2019</b>	<b>93,479</b>	<b>11,349</b>	<b>12,516</b>	<b>903</b>	<b>91,409</b>	<b>122</b>
Austria	2016	1,394	929	39	20	2,264	259
	2017	1,397	1,167	40	-9	2,532	287
	2018	1,359	823	41	44	2,097	236
	2019	1,365	951	38	-80	2,359	263
Belarus	2016	..	54	..	4	50	5
	2017	..	57	..	-5	62	7
	2018	..	56	..	1	55	6
	2019	..	47	..	-4	51	5
Belgium	2016	1,248	465	7	-19	1,725	152
	2017	1,236	507	14	-1	1,731	152
	2018	1,252	508	26	4	1,729	151
	2019	1,253	585	38	26	1,774	154
Bosnia and Herzegovina	2016	880	17	377	92	428	126
	2017	855	58	306	216	391	117
	2018	945	38	566	-12	429	129
	2019	907	46	455	26	472	143
Bulgaria	2016	..	97	..	-3	100	14
	2017	..	62	..	0	62	9
	2018	..	61	..	-1	62	9
	2019	..	62	..	0	62	9
Croatia	2016	..	30	..	1	29	7
	2017	..	31	..	0	32	8
	2018	..	30	..	-1	31	7
	2019	..	28	..	-3	31	8
Czechia	2016	2,396	844	550	2	2,688	253
	2017	2,676	522	646	23	2,529	238
	2018	2,738	529	636	-25	2,656	249
	2019	2,536	465	593	-7	2,415	226
Denmark	2016	..	11	..	-1	12	2
	2017	..	12	..	0	12	2
	2018	..	14	..	2	13	2
	2019	..	9	..	-1	10	2
Estonia	2016	13	..	13	0	0	0
	2017	19	..	19	..	0	0
	2018	14	..	13	1	0	0
	2019	23	..	20	3	0	0

Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Finland	2016	921	323	91	83	1,070	195
	2017	900	255	137	42	976	177
	2018	899	311	107	38	1,065	193
	2019	874	322	202	84	910	164
France	2016	3,227	370	83	91	3,423	51
	2017	3,356	494	6	219	3,625	54
	2018	3,346	608	50	-39	3,942	59
	2019	3,255	631	6	36	3,844	57
Germany	2016	9,387	2,388	715	0	11,060	135
	2017	9,392	2,297	842	30	10,817	131
	2018	9,361	2,301	838	9	10,815	130
	2019	7,786	1,903	761	..	8,928	107
Hungary	2016	929	39	459	-9	518	53
	2017	999	110	374	9	726	75
	2018	997	96	303	56	734	76
	2019	932	45	317	-15	675	70
Iceland	2016	..	25	..	..	25	75
	2017	..	22	..	..	22	65
	2018	..	21	..	0	21	63
	2019	..	11	..	..	11	31
Italy	2016	1,806	985	374	-100	2,517	41
	2017	1,717	684	342	2	2,056	34
	2018	1,860	654	361	-14	2,167	36
	2019	1,759	582	292	12	2,037	34
Lithuania	2016	..	16	..	0	16	6
	2017	..	16	..	-1	17	6
	2018	..	19	..	0	19	7
	2019	..	17	..	0	17	6
Luxembourg	2016	..	1	..	..	1	2
	2017	..	1	..	..	1	1
	2018	..	0	..	..	0	1
	2019	..	1	..	..	1	1
Netherlands	2016	2,108	71	101	50	2,028	119
	2017	2,036	110	197	-81	2,030	119
	2018	2,060	107	106	39	2,022	119
	2019	2,054	104	140	33	1,985	116
North Macedonia	2016	..	1	0	-1	2	1
	2017	..	5	0	4	1	1
	2018	..	0	0	0	0	0
	2019	..	1	..	0	1	0
Norway	2016	..	426	..	15	411	78
	2017	..	411	..	-14	425	80
	2018	..	416	0	-11	428	80
	2019	..	360	0	0	359	67
Poland	2016	10,101	125	7,355	-45	2,916	77
	2017	9,790	211	6,855	-93	3,240	85
	2018	9,849	214	6,948	140	2,974	78
	2019	9,277	189	6,526	217	2,724	72
Portugal	2016	..	13	..	1	12	1
	2017	..	12	..	0	12	1
	2018	..	9	..	0	9	1
	2019	..	9	..	0	10	1

Table 8

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Romania	2016	..	808	..	-21	829	42
	2017	..	761	0	34	726	37
	2018	..	721	0	-26	748	38
	2019	..	795	0	26	769	40
Russian Federation	2016	39,500	73	2,261	58	37,254	256
	2017	40,602	105	2,920	-62	37,849	260
	2018	27,094	120	2,739	-12	24,487	168
	2019	45,999	66	2,798	15	43,252	297
Serbia	2016	..	664	0	2	662	94
	2017	..	719	3	-3	718	102
	2018	..	774	..	-64	838	120
	2019	..	812	..	32	780	112
Slovakia	2016	1,694	153	72	5	1,770	325
	2017	1,637	258	70	31	1,794	329
	2018	1,645	305	59	88	1,803	331
	2019	1,454	235	124	108	1,457	267
Slovenia	2016	..	28	..	1	27	13
	2017	..	30	..	0	30	15
	2018	..	30	..	0	30	15
	2019	..	31	..	0	30	15
Spain	2016	1,572	186	137	45	1,576	34
	2017	1,580	261	132	-50	1,759	38
	2018	1,484	770	265	320	1,669	36
	2019	878	841	143	370	1,206	26
Sweden	2016	1,171	103	28	-16	1,262	128
	2017	1,155	96	30	-104	1,325	134
	2018	1,105	234	9	91	1,239	124
	2019	1,105	456	49	137	1,375	137
Switzerland	2016	..	16	..	..	16	2
	2017	..	14	..	..	14	2
	2018	..	15	..	..	15	2
	2019	..	12	0	..	12	1
Ukraine	2016	13,442	1,612	257	-150	14,947	334
	2017	10,696	1,550	225	66	11,955	269
	2018	11,460	840	26	7	12,267	277
	2019	10,651	877	14	37	11,476	261
United Kingdom	2016	1,400	1,222	0	109	2,513	38
	2017	1,433	943	0	6	2,370	36
	2018	1,334	970	..	87	2,217	33
	2019	1,370	857	..	-148	2,375	35
<b>Oceania</b>	<b>2016</b>	<b>3,369</b>	<b>189</b>	<b>755</b>	<b>..</b>	<b>2,803</b>	<b>69</b>
	<b>2017</b>	<b>3,298</b>	<b>186</b>	<b>473</b>	<b>..</b>	<b>3,011</b>	<b>73</b>
	<b>2018</b>	<b>3,169</b>	<b>235</b>	<b>575</b>	<b>..</b>	<b>2,829</b>	<b>68</b>
	<b>2019</b>	<b>2,893</b>	<b>448</b>	<b>657</b>	<b>..</b>	<b>2,684</b>	<b>64</b>
Australia	2016	2,867	189	755	..	2,301	95
	2017	2,789	186	473	..	2,502	102
	2018	2,683	235	575	..	2,343	94
	2019	2,468	448	657	..	2,259	90
New Zealand	2016	502	..	..	..	502	108
	2017	509	..	..	..	509	108
	2018	486	..	..	..	486	103
	2019	425	..	..	..	425	89



### Production, trade and supply of patent fuel

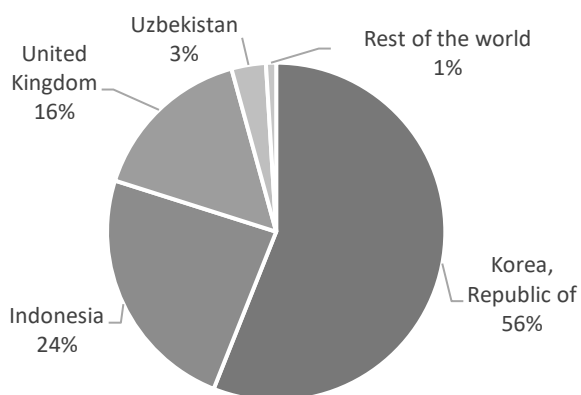
Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to patent fuel.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 21: Major patent fuel producing countries, 2019**



**Figure 22: Major patent fuel consuming countries, 2019**

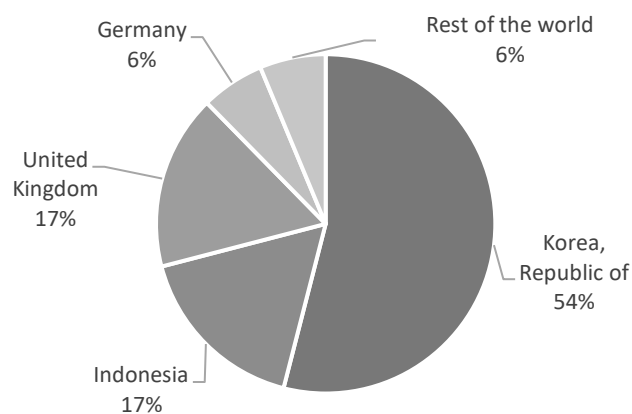


Table 9

## Production, trade and supply of patent fuel

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>2,508</b>	<b>237</b>	<b>32</b>	<b>69</b>	<b>2,644</b>	<b>0</b>
	<b>2017</b>	<b>1,900</b>	<b>240</b>	<b>29</b>	<b>44</b>	<b>2,067</b>	<b>0</b>
	<b>2018</b>	<b>1,735</b>	<b>219</b>	<b>25</b>	<b>36</b>	<b>1,893</b>	<b>0</b>
	<b>2019</b>	<b>1,149</b>	<b>142</b>	<b>39</b>	<b>60</b>	<b>1,192</b>	<b>0</b>
<b>Africa</b>	<b>2016</b>	<b>4</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>4</b>	<b>0</b>
	<b>2017</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
	<b>2018</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
	<b>2019</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
Niger	2016	*4	..	..	..	*4	0
	2017	*5	..	..	..	*5	0
	2018	*5	..	..	..	*5	0
	2019	*5	..	..	..	*5	0
<b>America, North</b>	<b>2016</b>	<b>..</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2017</b>	<b>..</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2018</b>	<b>..</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2019</b>	<b>..</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
Bahamas	2016	..	*2	..	..	*2	*5
	2017	..	*2	..	..	*2	*5
	2018	..	*2	..	..	*2	*5
	2019	..	*2	..	..	*2	*5
<b>Asia</b>	<b>2016</b>	<b>2,257</b>	<b>5</b>	<b>0</b>	<b>54</b>	<b>2,208</b>	<b>0</b>
	<b>2017</b>	<b>1,692</b>	<b>6</b>	<b>0</b>	<b>46</b>	<b>1,652</b>	<b>0</b>
	<b>2018</b>	<b>1,519</b>	<b>8</b>	<b>0</b>	<b>52</b>	<b>1,475</b>	<b>0</b>
	<b>2019</b>	<b>956</b>	<b>5</b>	<b>0</b>	<b>76</b>	<b>884</b>	<b>0</b>
Armenia	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Indonesia	2016	*95	*4	0	*54	*45	0
	2017	*82	*4	0	*46	*40	0
	2018	*97	*5	0	*52	*50	0
	2019	*274	*4	..	*76	*202	*1
Korea, Republic of	2016	1,255	..	..	..	1,255	25
	2017	1,078	..	..	..	1,078	21
	2018	910	..	..	..	910	18
	2019	644	..	..	..	644	13
United Arab Emirates	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	2	..	..	2	0
	2019	..	0	0	..	0	0
Uzbekistan	2016	907	..	..	..	907	29
	2017	532	..	..	..	532	17
	2018	512	..	..	..	512	16
	2019	38	..	..	..	38	1
<b>Europe</b>	<b>2016</b>	<b>247</b>	<b>230</b>	<b>32</b>	<b>15</b>	<b>430</b>	<b>1</b>
	<b>2017</b>	<b>203</b>	<b>233</b>	<b>29</b>	<b>-2</b>	<b>408</b>	<b>1</b>
	<b>2018</b>	<b>211</b>	<b>209</b>	<b>25</b>	<b>-16</b>	<b>412</b>	<b>1</b>
	<b>2019</b>	<b>189</b>	<b>135</b>	<b>38</b>	<b>-16</b>	<b>301</b>	<b>0</b>
Austria	2016	..	4	..	..	4	0
	2017	..	4	0	..	4	0
	2018	..	28	0	..	28	3
	2019	..	2	..	..	2	0

Table 9

## Production, trade and supply of patent fuel

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Belgium	2016	..	8	6	-1	3	0
	2017	..	6	4	1	1	0
	2018	..	5	3	0	1	0
	2019	..	2	1	0	1	0
France	2016	..	29	..	..	29	0
	2017	..	26	..	..	26	0
	2018	..	12	..	..	12	0
	2019	..	9	..	..	9	0
Germany	2016	..	137	1	..	136	2
	2017	..	114	1	..	113	1
	2018	..	108	1	..	107	1
	2019	..	73	0	..	72	1
Poland	2016	2	14	3	..	13	0
	2017	2	14	4	0	12	0
	2018	14	12	9	5	13	0
	2019	7	22	26	-6	9	0
Slovakia	2016	..	9	..	..	9	2
	2017	..	11	..	..	11	2
	2018	..	11	..	..	11	2
	2019	..	9	..	..	9	2
United Kingdom	2016	245	29	22	16	236	4
	2017	201	57	20	-3	241	4
	2018	197	33	12	-21	239	4
	2019	182	18	11	-10	199	3





### Production, trade and supply of brown coal briquettes and peat products

Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to brown coal briquettes (BKB) and peat products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

Figure 23: Production of BKB and peat products by region, 1990-2019

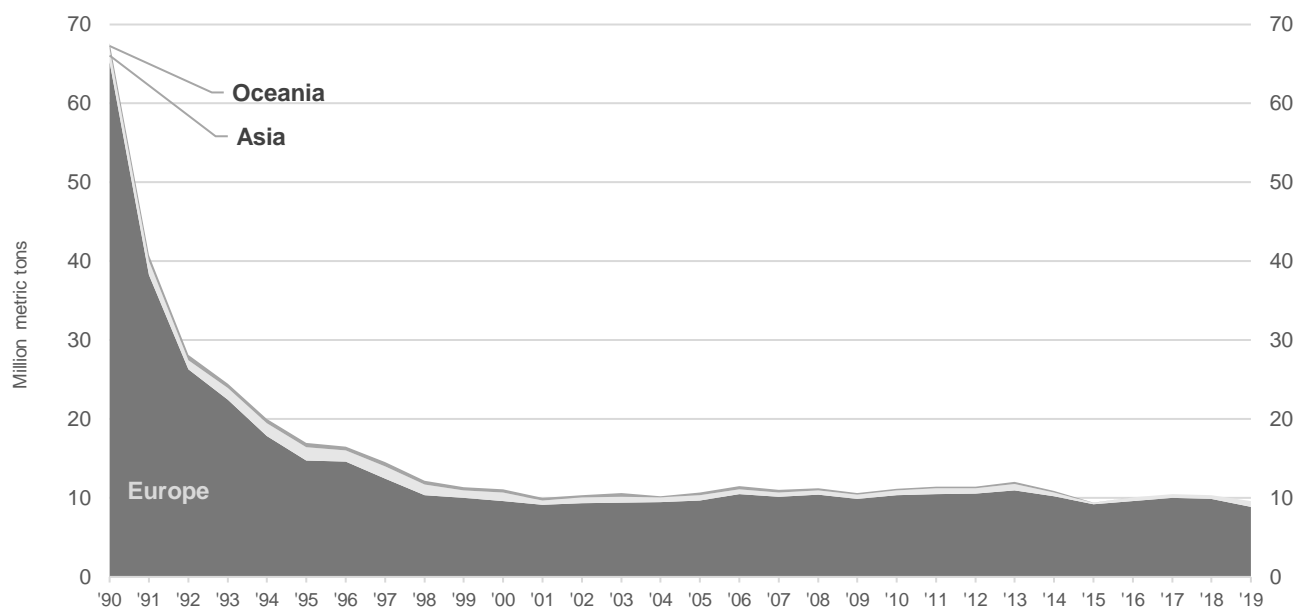


Figure 24: Major BKB and peat products producing countries, 2019

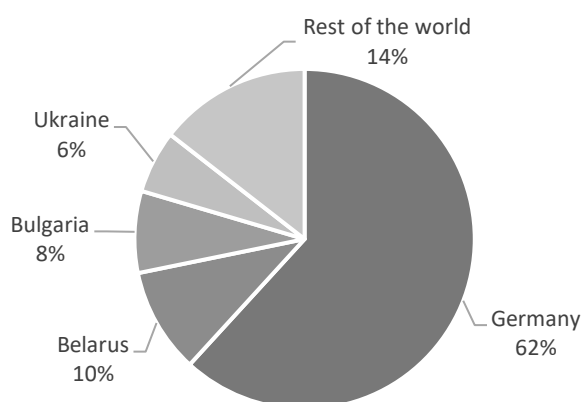


Figure 25: Major BKB and peat products consuming countries, 2019

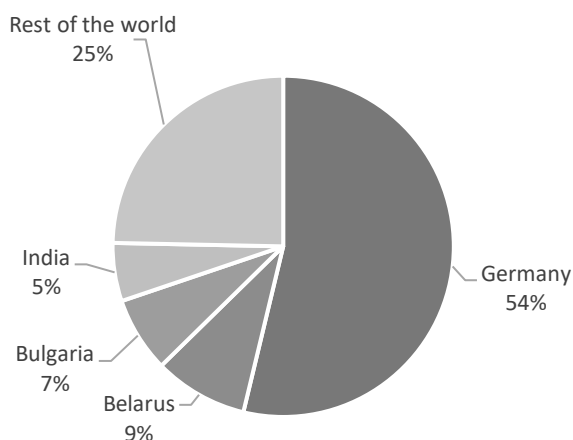


Table 10

## Production, trade and supply of brown coal briquettes and peat products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>10,106</b>	<b>910</b>	<b>1,600</b>	<b>-12</b>	<b>9,428</b>	<b>1</b>
	<b>2017</b>	<b>10,469</b>	<b>876</b>	<b>1,722</b>	<b>131</b>	<b>9,492</b>	<b>1</b>
	<b>2018</b>	<b>10,351</b>	<b>905</b>	<b>1,791</b>	<b>326</b>	<b>9,138</b>	<b>1</b>
	<b>2019</b>	<b>9,626</b>	<b>825</b>	<b>1,567</b>	<b>275</b>	<b>8,610</b>	<b>1</b>
<b>America, North</b>	<b>2016</b>	..	<b>4</b>	..	..	<b>4</b>	<b>0</b>
	<b>2017</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2018</b>	..	<b>1</b>	..	..	<b>1</b>	<b>0</b>
	<b>2019</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
Mexico	2016	..	4	..	..	4	0
	2017	..	2	..	..	2	0
	2018	..	1	..	..	1	0
	2019	..	2	..	..	2	0
<b>Asia</b>	<b>2016</b>	<b>466</b>	<b>1</b>	..	..	<b>467</b>	<b>0</b>
	<b>2017</b>	<b>473</b>	<b>2</b>	<b>0</b>	..	<b>475</b>	<b>0</b>
	<b>2018</b>	<b>467</b>	<b>3</b>	<b>3</b>	..	<b>467</b>	<b>0</b>
	<b>2019</b>	<b>739</b>	..	..	..	<b>739</b>	<b>0</b>
Georgia	2016	..	1	..	..	1	0
	2017	..	2	0	..	2	0
	2018	..	3	3	..	0	0
	2019	..	..	..	..	..	..
India	2016	*436	..	..	..	*436	0
	2017	*464	..	..	..	*464	0
	2018	*461	..	..	..	*461	0
	2019	*475	..	..	..	*475	0
Uzbekistan	2016	30	..	..	..	30	1
	2017	9	..	..	..	9	0
	2018	6	..	..	..	6	0
	2019	264	..	..	..	264	8
<b>Europe</b>	<b>2016</b>	<b>9,640</b>	<b>864</b>	<b>1,600</b>	<b>-30</b>	<b>8,934</b>	<b>12</b>
	<b>2017</b>	<b>9,996</b>	<b>872</b>	<b>1,722</b>	<b>141</b>	<b>9,005</b>	<b>12</b>
	<b>2018</b>	<b>9,884</b>	<b>900</b>	<b>1,788</b>	<b>326</b>	<b>8,669</b>	<b>12</b>
	<b>2019</b>	<b>8,888</b>	<b>822</b>	<b>1,567</b>	<b>275</b>	<b>7,868</b>	<b>10</b>
Austria	2016	..	9	0	..	9	1
	2017	..	14	0	..	13	2
	2018	..	13	0	..	13	1
	2019	..	10	0	..	10	1
Belarus	2016	873	..	94	9	770	82
	2017	976	..	109	33	834	88
	2018	1,055	..	164	35	856	91
	2019	962	..	120	75	767	81
Belgium	2016	..	417	..	-1	418	37
	2017	..	366	..	0	365	32
	2018	..	383	..	0	383	33
	2019	..	324	..	..	324	28
Bulgaria	2016	1,313	..	..	7	1,306	183
	2017	1,192	0	..	99	1,093	154
	2018	980	..	..	210	770	109
	2019	749	..	..	134	615	88
Czechia	2016	118	171	94	-2	197	19
	2017	128	225	105	2	246	23
	2018	145	236	126	2	253	24
	2019	136	209	113	3	229	21

Table 10

## Production, trade and supply of brown coal briquettes and peat products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Estonia	2016	8	..	..	-1	9	7
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
France	2016	..	44	..	..	44	1
	2017	..	57	..	0	57	1
	2018	..	45	..	0	45	1
	2019	..	51	..	0	51	1
Germany	2016	6,418	19	1,380	-50	5,107	62
	2017	6,705	8	1,486	..	5,227	63
	2018	6,612	14	1,477	30	5,119	62
	2019	5,949	14	1,318	17	4,628	55
Hungary	2016	..	7	..	..	7	1
	2017	..	12	..	..	12	1
	2018	..	11	..	..	11	1
	2019	..	9	..	..	9	1
Ireland	2016	183	20	14	19	170	36
	2017	170	14	14	14	156	33
	2018	146	15	17	-34	178	37
	2019	123	13	13	-16	138	28
Latvia	2016	..	..	..	..	..	..
	2017	1	..	..	0	1	0
	2018	1	..	1	-1	1	1
	2019	2	..	1	0	1	1
Lithuania	2016	6	60	5	2	59	20
	2017	5	59	4	-5	65	23
	2018	4	73	1	1	75	27
	2019	3	58	1	-1	61	22
Luxembourg	2016	..	8	..	..	8	14
	2017	..	9	..	..	9	16
	2018	..	9	..	..	9	14
	2019	..	9	..	..	9	14
Netherlands	2016	..	40	..	..	40	2
	2017	..	42	..	..	42	2
	2018	..	38	..	..	38	2
	2019	..	43	..	..	43	3
Poland	2016	..	27	5	..	22	1
	2017	..	29	2	0	27	1
	2018	..	44	..	0	44	1
	2019	..	41	1	0	40	1
Russian Federation	2016	41	..	4	1	36	0
	2017	26	0	2	0	24	0
	2018	29	0	0	0	30	0
	2019	31	..	..	0	31	0
Serbia	2016	434	11	4	-16	457	65
	2017	513	5	0	12	505	72
	2018	422	2	2	-15	437	62
	2019	360	3	..	-45	408	58
Slovakia	2016	..	31	..	1	30	6
	2017	..	32	..	1	31	6
	2018	..	17	..	-1	18	3
	2019	..	38	..	-1	39	7

**Table 10****Production, trade and supply of brown coal briquettes and peat products**

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Ukraine	2016	246	0	0	2	244	5
	2017	281	..	..	-15	296	7
	2018	490	..	..	99	391	9
	2019	574	..	..	110	464	11
<b>Oceania</b>	<b>2016</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>18</b>	<b>23</b>	<b>1</b>
	<b>2017</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>-10</b>	<b>10</b>	<b>0</b>
	<b>2018</b>	<b>..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>0</b>
	<b>2019</b>	<b>..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>0</b>
Australia	2016	0	41	0	18	23	1
	2017	..	..	..	-10	10	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0





### Production, trade and supply of peat

Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to peat.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

Figure 26: World production of peat, 1990-2019

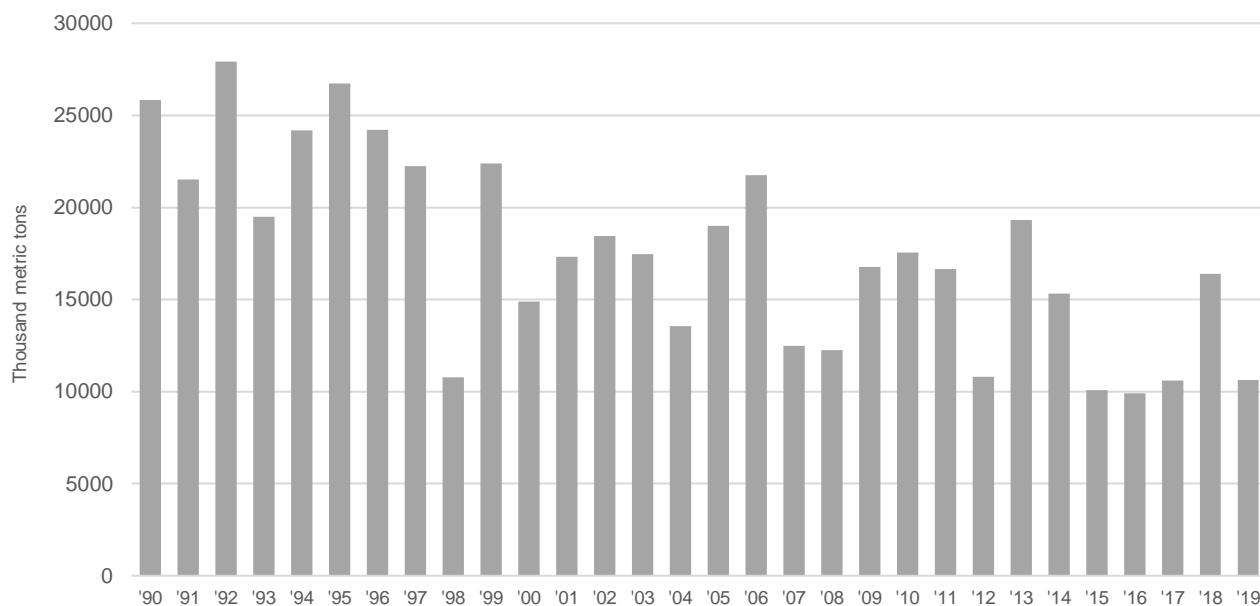


Figure 27: Major peat producing countries, 2019

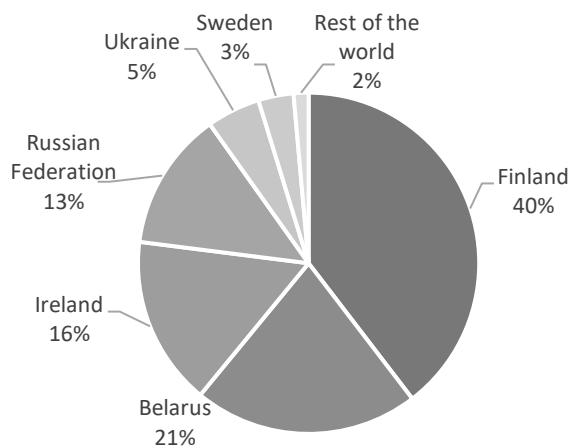


Figure 28: Major peat consuming countries, 2019

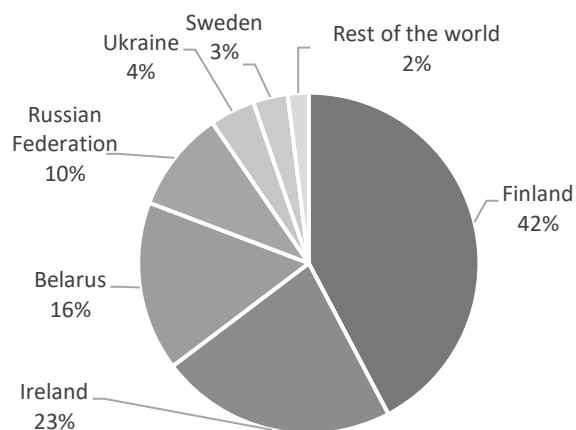




Table 11

## Production, trade and supply of peat

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>9,894</b>	<b>179</b>	<b>152</b>	<b>-3,517</b>	<b>13,438</b>	<b>2</b>
	<b>2017</b>	<b>10,613</b>	<b>216</b>	<b>165</b>	<b>-2,329</b>	<b>12,993</b>	<b>2</b>
	<b>2018</b>	<b>16,403</b>	<b>279</b>	<b>183</b>	<b>2,383</b>	<b>14,115</b>	<b>2</b>
	<b>2019</b>	<b>10,625</b>	<b>277</b>	<b>246</b>	<b>-2,177</b>	<b>12,833</b>	<b>2</b>
<b>Africa</b>	<b>2016</b>	<b>17</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>17</b>	<b>0</b>
	<b>2017</b>	<b>22</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>22</b>	<b>0</b>
	<b>2018</b>	<b>27</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>27</b>	<b>0</b>
	<b>2019</b>	<b>37</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>37</b>	<b>0</b>
Burundi	2016	10	..	..	..	10	1
	2017	14	..	..	..	14	1
	2018	12	..	..	..	12	1
	2019	15	..	..	..	15	1
Rwanda	2016	*7	..	..	..	*7	*1
	2017	*8	..	..	..	*8	*1
	2018	*16	..	..	..	*16	*1
	2019	*22	..	..	..	*22	*2
<b>America, South</b>	<b>2016</b>	<b>7</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>12</b>	<b>0</b>
	<b>2017</b>	<b>5</b>	<b>4</b>	<b>..</b>	<b>..</b>	<b>9</b>	<b>0</b>
	<b>2018</b>	<b>5</b>	<b>4</b>	<b>..</b>	<b>..</b>	<b>9</b>	<b>0</b>
	<b>2019</b>	<b>5</b>	<b>4</b>	<b>..</b>	<b>..</b>	<b>9</b>	<b>0</b>
Falkland Is. (Malvinas)	2016	*7	..	..	..	*7	*2,392
	2017	5	..	..	..	5	1,627
	2018	5	..	..	..	5	1,545
	2019	5	..	..	..	5	1,483
Uruguay	2016	..	5	..	..	5	1
	2017	..	4	..	..	4	1
	2018	..	4	..	..	4	1
	2019	..	4	..	..	4	1
<b>Asia</b>	<b>2016</b>	<b>0</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>0</b>
	<b>2017</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2018</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>..</b>	<b>3</b>	<b>0</b>
	<b>2019</b>	<b>4</b>	<b>7</b>	<b>4</b>	<b>..</b>	<b>7</b>	<b>0</b>
Georgia	2016	0	1	..	..	1	0
	2017	0	2	0	..	2	1
	2018	3	3	3	..	3	1
	2019	4	7	4	..	7	2
<b>Europe</b>	<b>2016</b>	<b>9,870</b>	<b>173</b>	<b>152</b>	<b>-3,517</b>	<b>13,408</b>	<b>18</b>
	<b>2017</b>	<b>10,586</b>	<b>209</b>	<b>165</b>	<b>-2,329</b>	<b>12,960</b>	<b>17</b>
	<b>2018</b>	<b>16,367</b>	<b>272</b>	<b>180</b>	<b>2,383</b>	<b>14,076</b>	<b>19</b>
	<b>2019</b>	<b>10,578</b>	<b>266</b>	<b>242</b>	<b>-2,177</b>	<b>12,780</b>	<b>17</b>
Belarus	2016	1,362	..	..	-494	1,856	196
	2017	2,045	..	..	-28	2,073	219
	2018	2,354	..	..	141	2,213	234
	2019	2,269	..	..	205	2,064	218
Estonia	2016	102	..	18	-54	138	105
	2017	32	..	31	-162	163	123
	2018	92	..	0	-49	141	107
	2019	65	..	..	-31	96	72
Finland	2016	3,031	45	..	-2,586	5,662	1,030
	2017	3,085	26	..	-2,304	5,415	983
	2018	7,646	44	..	1,606	6,084	1,102
	2019	4,207	54	..	-1,164	5,425	981

## Production, trade and supply of peat

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Ireland	2016	3,187	..	..	-340	3,527	751
	2017	3,593	..	..	181	3,412	718
	2018	3,871	..	..	687	3,184	661
	2019	1,706	..	..	-1,171	2,877	589
Latvia	2016	4	0	0	1	3	2
	2017	2	..	1	-2	3	2
	2018	7	..	1	-6	12	6
	2019	8	..	..	2	5	3
Lithuania	2016	17	..	1	-13	29	10
	2017	24	..	1	-29	52	18
	2018	28	..	3	-26	51	18
	2019	30	..	2	-3	31	11
Romania	2016	7	39	1	0	45	2
	2017	7	50	0	0	56	3
	2018	6	65	0	0	71	4
	2019	1	70	1	..	70	4
Russian Federation	2016	1,197	15	106	-38	1,144	8
	2017	903	41	102	0	842	6
	2018	1,288	44	157	57	1,118	8
	2019	1,398	40	230	-30	1,237	8
Sweden	2016	424	57	..	..	481	49
	2017	377	74	..	..	451	46
	2018	535	97	..	..	632	63
	2019	355	67	..	..	422	42
Ukraine	2016	539	17	26	7	523	12
	2017	518	18	29	15	492	11
	2018	540	22	19	-27	570	13
	2019	540	35	9	13	553	13



## Production of biofuels and wastes

Terajoules

### Table Notes

The conversion of fuelwood (solid volume, 9.135 TJ/m<sup>3</sup>) is based on an average 20-30% moisture content of wood from an unspecified species.

The methodology used for estimating fuel bagasse production for certain countries is derived from the work done by the Economic Commission for Latin America and the Caribbean (ECLAC). Although several different methodologies have been devised, the one selected assumes a yield of 3.26 tons of fuel bagasse at 50% humidity per ton of cane sugar produced. This methodology was used for instances where national data on bagasse production were not available. In these cases, data were derived from

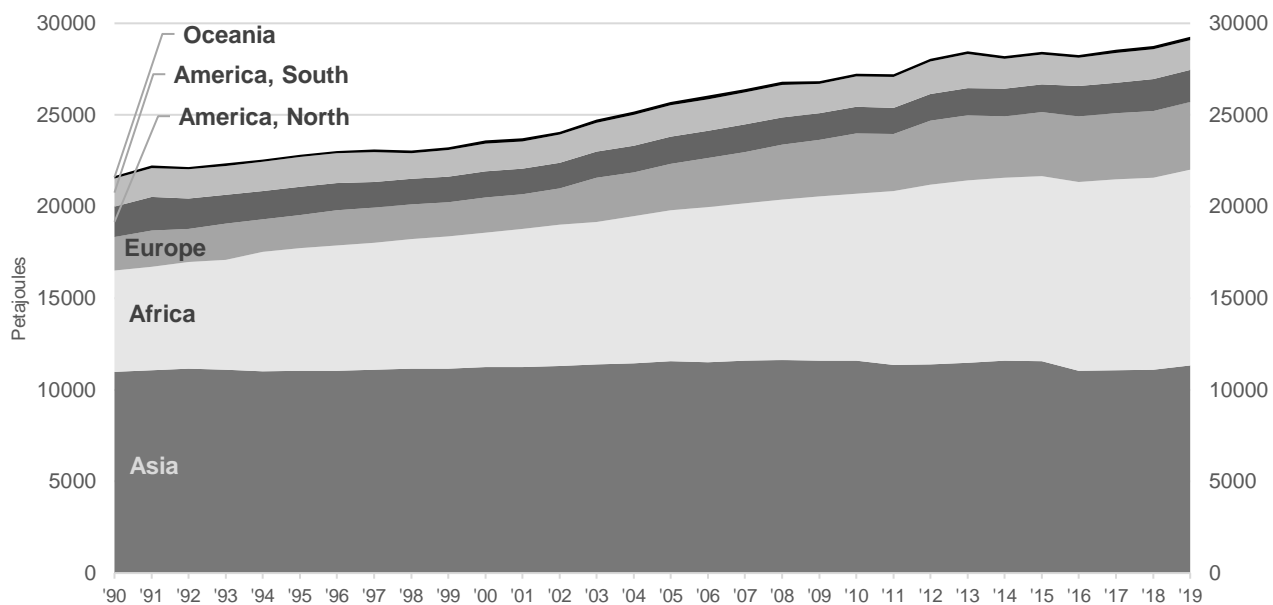
sugar production figures extracted from the Sugar Yearbook of the International Sugar Organization (London) or from the FAOSTAT database of the Food and Agriculture Organization of the United Nations.

Biogasoline includes Other liquid biofuels.

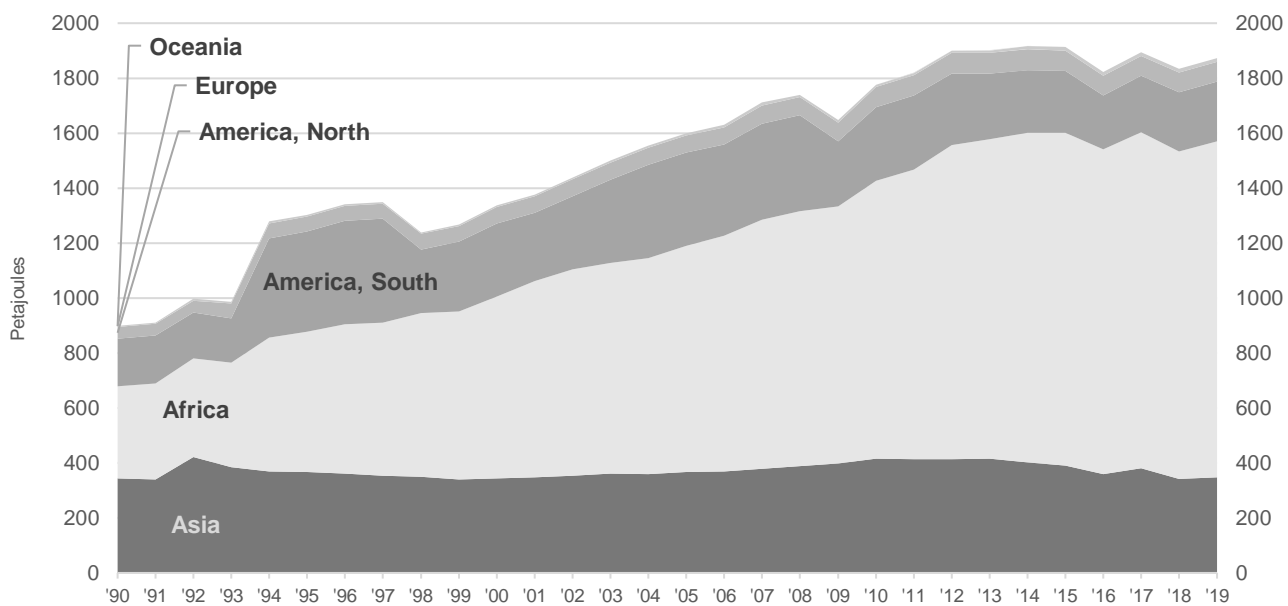
The total column excludes charcoal as it is the only secondary energy product in the table.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

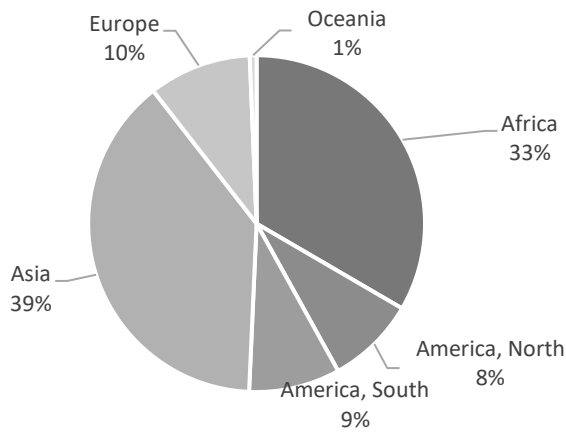
**Figure 29: Production of fuelwood by region, 1990-2019**



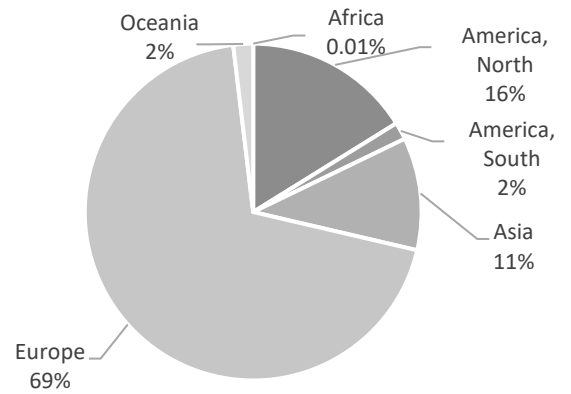
**Figure 30: Production of charcoal by region, 1990-2019**



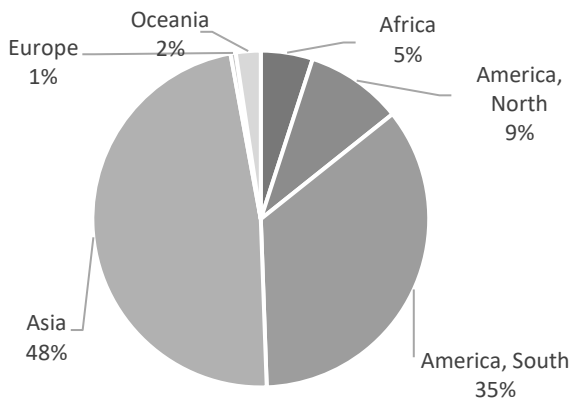
**Figure 31: Production of total solid biofuels by region, 2019**



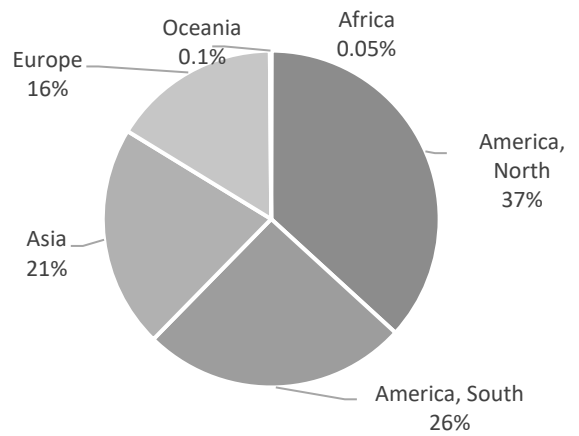
**Figure 32: Production of biogases by region, 2019**



**Figure 33: Production of bagasse by region, 2019**



**Figure 34: Production of liquids biofuels by region, 2019**



**Figure 35: Production of energy from waste by region, 2019**

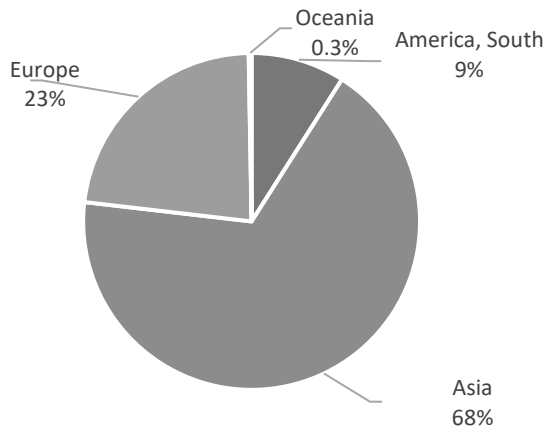


Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
World	2016	28,256,207	648,832	9,283,423	3,754,295	1,678,537	1,822,776
	2017	28,551,599	641,988	9,481,401	3,926,916	1,692,458	1,894,569
	2018	28,770,564	691,336	9,697,873	4,115,810	1,807,012	1,834,089
	2019	29,264,992	698,383	9,581,952	4,051,304	1,809,657	1,873,342
Africa	2016	10,305,021	162,097	3,284,307	190,366	..	1,181,745
	2017	10,408,269	164,765	3,357,216	178,689	..	1,221,898
	2018	10,475,535	168,498	3,434,767	184,689	..	1,192,683
	2019	10,684,724	172,225	3,508,753	202,292	..	1,222,147
Algeria	2016	283	..	..	..	..	..
	2017	484	..	..	..	..	..
	2018	1,032	..	..	..	..	..
	2019	484	..	..	..	..	..
Angola	2016	157,116	..	102,127	*1,113	..	32,834
	2017	159,460	..	103,650	*1,248	..	33,276
	2018	161,604	..	105,044	*1,382	..	33,778
	2019	163,722	..	106,421	*1,422	..	34,214
Benin	2016	102,816	..	4,084	..	..	14,426
	2017	105,436	..	4,169	..	..	14,937
	2018	108,829	..	4,411	..	..	15,258
	2019	117,219	..	3,386	..	..	16,409
Botswana	2016	6,387	..	..	..	..	2,216
	2017	6,388	..	..	..	..	2,216
	2018	6,389	..	..	..	..	2,216
	2019	6,390	..	..	..	..	2,216
Burkina Faso	2016	126,702	..	..	633	..	20,345
	2017	128,164	..	..	*633	..	20,852
	2018	129,651	..	..	*633	..	21,372
	2019	131,168	..	..	*633	..	21,905
Burundi	2016	54,801	..	..	596	..	7,788
	2017	54,801	..	..	552	..	7,788
	2018	54,801	..	..	492	..	7,788
	2019	54,801	..	..	468	..	7,788
Cabo Verde	2016	*1,448	..	..	..	..	*19
	2017	*1,413	..	..	..	..	*19
	2018	*1,399	..	..	..	..	*19
	2019	*1,385	..	..	..	..	*20
Cameroon	2016	261,985	..	5,131	1,594	..	6,962
	2017	*268,862	..	5,266	1,592	..	7,148
	2018	275,912	..	5,410	1,590	..	7,337
	2019	283,134	..	5,552	1,654	..	7,529
Central African Rep.	2016	33,201	..	..	..	..	413
	2017	*33,327	..	..	..	..	*422
	2018	*33,579	..	..	..	..	*434
	2019	*33,831	..	..	..	..	*445
Chad	2016	70,942	..	..	881	..	13,806
	2017	71,920	..	..	*914	..	14,131
	2018	72,916	..	..	*949	..	14,485
	2019	73,920	..	..	*985	..	14,839
Comoros	2016	*3,637	..	*17	..	..	*4
	2017	3,715	..	17	..	..	5
	2018	3,799	..	18	..	..	*5
	2019	*3,818	..	*18	..	..	*5
Congo	2016	49,105	..	15,641	..	..	6,638
	2017	51,186	..	15,641	..	..	6,805
	2018	51,911	..	15,862	..	..	6,902
	2019	51,911	..	15,862	..	..	6,902

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
1,032,033	1,351,277	2,158,567	1,355,579	970,535	50,489,285
1,066,990	1,363,863	2,205,009	1,482,907	993,066	51,406,195
1,122,273	1,377,319	2,355,274	1,670,818	1,013,671	52,621,950
1,171,511	1,384,747	2,367,432	1,798,898	1,032,473	53,161,350
3,108	..	1,528	..	110	13,946,537
3,106	..	1,179	..	104	14,113,329
3,106	..	1,825	..	130	14,268,549
3,106	..	1,887	..	114	14,573,102
..	..	..	..	..	283
..	..	..	..	..	484
..	..	..	..	..	1,032
..	..	..	..	..	484
..	..	..	..	..	260,356
..	..	..	..	..	264,358
..	..	..	..	..	268,031
..	..	..	..	..	271,566
..	..	..	..	..	106,900
..	..	..	..	..	109,605
..	..	..	..	..	113,240
..	..	..	..	..	120,604
..	..	..	..	..	6,387
..	..	..	..	..	6,388
..	..	..	..	..	6,389
..	..	..	..	..	6,390
..	..	..	..	*36	127,372
..	..	..	..	*36	128,833
..	..	..	..	*36	130,320
..	..	..	..	*36	131,837
..	..	..	..	..	55,396
..	..	..	..	..	55,353
..	..	..	..	..	55,293
..	..	..	..	..	55,268
..	..	..	..	..	*1,448
..	..	..	..	..	*1,413
..	..	..	..	..	*1,399
..	..	..	..	..	*1,385
..	..	..	..	7	268,717
..	..	..	..	*7	*275,727
..	..	..	..	7	282,919
..	..	..	..	7	290,347
..	..	..	..	..	33,201
..	..	..	..	..	*33,327
..	..	..	..	..	*33,579
..	..	..	..	..	*33,831
..	..	..	..	..	71,824
..	..	..	..	..	72,834
..	..	..	..	..	73,865
..	..	..	..	..	74,906
..	..	..	..	..	*3,654
..	..	..	..	..	3,732
..	..	..	..	..	3,816
..	..	..	..	..	*3,835
..	..	..	..	..	64,746
..	..	..	..	..	66,827
..	..	..	..	..	67,773
..	..	..	..	..	67,773



Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					Charcoal
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	
Côte d'Ivoire	2016	266,155	..	1,968	..	..	44,180
	2017	262,429	..	1,986	..	..	44,180
	2018	259,853	..	2,131	..	..	43,735
	2019	265,966	..	2,275	..	..	44,901
Dem. Rep. of the Congo	2016	1,174,908	..	6,229	..	..	120,183
	2017	1,176,516	..	3,014	..	..	120,354
	2018	1,072,193	..	4,658	..	..	121,858
	2019	1,191,222	..	4,131	..	..	121,858
Djibouti	2016	3,560	..	..	..	..	1,554
	2017	3,605	..	..	..	..	1,574
	2018	3,650	..	..	..	..	1,595
	2019	3,696	..	..	..	..	1,615
Egypt	2016	162,325	..	39,098	23,412	..	42,303
	2017	162,599	..	*39,098	*23,412	..	42,625
	2018	162,877	..	*41,088	*23,915	..	42,949
	2019	141,672	..	*41,100	*23,939	..	42,950
Equatorial Guinea	2016	4,083	..	..	..	..	310
	2017	4,083	..	..	..	..	310
	2018	4,083	..	..	..	..	324
	2019	4,083	..	..	..	..	324
Eritrea	2016	21,913	2,577	1,459	..	..	5,133
	2017	22,151	2,606	1,475	..	..	4,775
	2018	22,407	2,636	1,492	..	..	4,833
	2019	22,696	2,671	1,511	..	..	4,898
Eswatini	2016	16,114	..	..	14,757	..	1,464
	2017	12,062	..	..	12,365	..	266
	2018	12,174	..	..	12,974	..	*295
	2019	12,094	..	..	14,729	..	*295
Ethiopia	2016	999,269	152,834	149,807	8,934	..	127,340
	2017	1,010,532	156,058	156,058	9,158	..	130,275
	2018	1,021,978	160,026	156,857	*8,494	..	133,272
	2019	1,033,598	163,669	160,428	*7,722	..	136,340
Gabon	2016	*50,000	..	2,132	705	..	667
	2017	*50,778	..	2,180	628	..	676
	2018	*51,975	..	2,138	641	..	687
	2019	*52,070	..	2,101	649	..	698
Gambia	2016	6,846	..	..	..	..	1,972
	2017	6,921	..	..	..	..	2,008
	2018	6,997	..	..	..	..	2,045
	2019	7,074	..	..	..	..	2,083
Ghana	2016	150,872	..	..	..	..	43,785
	2017	161,583	..	..	..	..	50,153
	2018	176,833	..	..	..	..	52,963
	2019	173,064	..	..	..	..	52,066
Guinea	2016	112,050	..	..	629	..	11,679
	2017	112,388	..	..	629	..	11,907
	2018	112,730	..	..	*638	..	12,140
	2019	113,089	..	..	*647	..	12,377
Guinea-Bissau	2016	25,808	..	..	..	..	2,172
	2017	26,119	..	..	..	..	2,221
	2018	26,434	..	..	..	..	2,271
	2019	26,434	..	..	..	..	2,271
Kenya	2016	520,065	..	25,223	14,616	..	135,818
	2017	515,908	..	26,055	14,367	..	151,040
	2018	*515,908	..	25,879	11,676	..	115,758
	2019	*527,802	..	*26,474	*11,946	..	118,413

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	268,123
..	..	..	..	..	264,415
..	..	..	..	..	261,984
..	..	..	..	..	268,242
..	..	..	..	..	1,181,137
..	..	..	..	..	1,179,530
..	..	..	..	..	1,076,851
..	..	..	..	..	1,195,353
..	..	..	..	..	3,560
..	..	..	..	..	3,605
..	..	..	..	..	3,650
..	..	..	..	..	3,696
..	..	..	..	..	224,835
..	..	..	..	..	225,109
..	..	..	..	..	227,880
..	..	..	..	..	206,710
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	25,949
..	..	..	..	..	26,231
..	..	..	..	..	26,535
..	..	..	..	..	26,878
..	..	..	..	..	30,871
..	..	..	..	..	24,427
..	..	..	..	..	25,148
..	..	..	..	..	26,823
..	..	134	..	..	1,310,978
..	..	134	..	..	1,331,939
..	..	161	..	..	1,347,516
..	..	170	..	..	1,365,587
..	..	..	..	..	*52,837
..	..	..	..	..	*53,586
..	..	..	..	..	*54,754
..	..	..	..	..	*54,819
..	..	..	..	..	6,846
..	..	..	..	..	6,921
..	..	..	..	..	6,997
..	..	..	..	..	7,074
..	..	..	..	..	150,872
..	..	..	..	..	161,583
..	..	..	..	..	176,833
..	..	..	..	..	173,064
..	..	..	..	..	112,679
..	..	..	..	..	113,017
..	..	..	..	..	113,367
..	..	..	..	..	113,736
..	..	..	..	..	25,808
..	..	..	..	..	26,119
..	..	..	..	..	26,434
..	..	..	..	..	26,434
..	..	..	..	..	559,903
..	..	..	..	..	556,330
..	..	..	..	6	*553,469
..	..	..	..	..	*566,222

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Lesotho	2016	*11,370	*4,508	*1,375	..	..	1,145
	2017	10,576	3,995	1,441	..	..	510
	2018	*9,994	*3,481	*1,459	..	..	153
	2019	*9,793	*3,412	*1,473	..	..	*153
Liberia	2016	78,534	..	..	..	..	8,595
	2017	81,091	..	..	..	..	8,891
	2018	83,734	..	..	..	..	9,197
	2019	86,462	..	..	..	..	9,513
Libya	2016	24,330	..	..	..	..	3,304
	2017	24,602	..	..	..	..	3,338
	2018	24,884	..	..	..	..	3,371
	2019	25,169	..	..	..	..	3,405
Madagascar	2016	256,698	..	..	2,726	..	22,677
	2017	266,494	..	..	2,851	..	23,680
	2018	299,749	..	..	2,497	..	27,199
	2019	312,613	..	..	2,487	..	28,497
Malawi	2016	52,882	..	..	6,772	..	16,674
	2017	53,435	..	..	6,772	..	17,047
	2018	53,973	..	..	*6,772	..	17,429
	2019	54,605	..	..	*6,772	..	17,819
Mali	2016	*150,965	..	..	1,457	..	15,045
	2017	*153,587	..	..	*1,457	..	15,340
	2018	*155,249	..	..	*1,457	..	15,488
	2019	*156,665	..	..	*1,457	..	*15,635
Mauritania	2016	19,092	..	..	..	..	6,390
	2017	19,448	..	..	..	..	6,534
	2018	19,805	..	..	..	..	6,667
	2019	19,805	..	..	..	..	6,667
Mauritius	2016	213	..	..	9,946	..	15
	2017	266	..	..	9,382	..	15
	2018	204	..	..	8,690	..	15
	2019	162	..	..	8,541	..	12
Morocco	2016	63,752	..	..	922	..	561
	2017	63,022	..	..	1,196	..	585
	2018	61,744	..	..	1,332	..	596
	2019	61,863	..	..	1,122	..	608
Mozambique	2016	281,294	..	13,774	9,689	..	41,979
	2017	285,973	..	13,552	9,777	..	47,742
	2018	290,683	..	13,343	9,706	..	48,182
	2019	295,388	..	13,145	9,520	..	48,647
Namibia	2016	13,419	..	1,584	..	..	4,750
	2017	13,711	..	1,586	..	..	4,868
	2018	15,718	..	1,601	..	..	5,399
	2019	18,426	..	1,592	..	..	5,508
Niger	2016	65,581	*562	*452	..	..	1,535
	2017	*54,496	*584	*470	..	..	1,593
	2018	*65,932	*803	*647	..	..	1,652
	2019	*68,537	*876	*705	..	..	1,711
Nigeria	2016	2,313,610	..	2,388,515	503	..	116,997
	2017	2,330,370	..	2,451,619	633	..	118,962
	2018	2,347,592	..	2,515,866	757	..	120,959
	2019	2,347,592	..	2,581,230	*541	..	120,959
Rwanda	2016	*83,476	..	..	203	..	*18,113
	2017	*84,179	..	..	232	..	*18,349
	2018	*84,526	..	..	253	..	*18,467
	2019	*84,526	..	..	248	..	*18,467

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*17,254
..	..	..	..	..	16,012
..	..	..	..	..	*14,934
..	..	..	..	..	*14,677
..	..	..	..	..	78,534
..	..	..	..	..	81,091
..	..	..	..	..	83,734
..	..	..	..	..	86,462
..	..	..	..	..	24,330
..	..	..	..	..	24,602
..	..	..	..	..	24,884
..	..	..	..	..	25,169
..	..	..	..	..	259,423
..	..	..	..	..	269,345
..	..	..	..	..	302,246
..	..	..	..	..	315,100
*99	..	..	..	..	59,753
*98	..	..	..	..	60,305
*98	..	..	..	..	60,843
*98	..	..	..	..	61,475
..	..	..	..	..	*152,422
..	..	..	..	..	*155,044
..	..	..	..	..	*156,706
..	..	..	..	..	*158,122
..	..	..	..	..	19,092
..	..	..	..	..	19,448
..	..	..	..	..	19,805
..	..	..	..	..	19,805
..	..	..	..	67	10,226
..	..	..	..	61	9,709
..	..	..	..	81	8,975
..	..	..	..	71	8,775
3,009	..	..	..	..	67,683
3,008	..	..	..	..	67,227
3,008	..	..	..	..	66,085
3,008	..	..	..	..	65,993
..	..	..	..	..	304,757
..	..	..	..	..	309,302
..	..	..	..	..	313,732
..	..	..	..	..	318,053
..	..	..	..	..	15,003
..	..	..	..	..	15,297
..	..	..	..	..	17,319
..	..	..	..	..	20,018
..	..	..	..	..	66,595
..	..	..	..	..	*55,550
..	..	..	..	..	*67,382
..	..	..	..	..	*70,118
..	..	..	..	..	4,702,628
..	..	..	..	..	4,782,622
..	..	..	..	..	4,864,215
..	..	..	..	..	4,929,363
..	..	..	..	..	*83,679
..	..	..	..	..	*84,411
..	..	..	..	..	*84,779
..	..	..	..	..	*84,774

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Sao Tome and Principe	2016	1,029	..	..	..	..	283
	2017	1,033	..	..	..	..	286
	2018	1,039	..	..	..	..	289
	2019	1,039	..	..	..	..	289
Senegal	2016	60,730	..	1,136	2,768	..	8,526
	2017	64,534	..	252	2,706	..	5,575
	2018	63,838	..	252	3,536	..	5,387
	2019	65,601	..	1,513	5,880	..	5,476
Seychelles	2016	29	..	..	..	..	..
	2017	29	..	..	..	..	..
	2018	29	..	..	..	..	..
	2019	29	..	..	..	..	..
Sierra Leone	2016	53,330	..	*72	201	..	13,039
	2017	53,723	..	*72	201	..	13,334
	2018	54,143	..	*72	*201	..	13,629
	2019	54,572	..	*70	*201	..	13,924
Somalia	2016	135,387	..	..	579	..	36,127
	2017	138,909	..	..	*527	..	37,447
	2018	142,539	..	..	*530	..	38,816
	2019	146,278	..	..	*550	..	40,235
South Africa	2016	221,774	..	113,240	39,817	..	41,831
	2017	221,746	..	114,735	25,678	..	41,300
	2018	218,093	..	115,570	28,114	..	24,485
	2019	213,420	..	115,726	28,157	..	23,569
South Sudan	2016	8,110	..	..	..	..	325
	2017	6,896	..	..	..	..	254
	2018	6,937	..	..	..	..	255
	2019	6,992	..	..	..	..	257
St. Helena and Depend.	2016	6	..	..	..	..	..
	2017	6	..	..	..	..	..
	2018	5	..	..	..	..	..
	2019	5	..	..	..	..	..
Sudan	2016	139,884	..	47,215	*16,711	..	17,346
	2017	140,834	..	47,319	*16,711	..	17,346
	2018	141,830	..	47,868	*16,989	..	17,346
	2019	142,351	..	48,413	*17,004	..	17,346
Togo	2016	113,533	..	1,358	..	..	20,591
	2017	105,704	..	1,245	..	..	21,093
	2018	111,890	..	1,641	..	..	22,332
	2019	111,890	..	1,641	..	..	22,332
Tunisia	2016	39,262	1,616	4,370	..	..	6,431
	2017	39,427	1,523	4,370	..	..	6,579
	2018	39,708	1,551	4,377	..	..	6,726
	2019	39,946	1,598	4,321	..	..	6,873
Uganda	2016	742,912	..	..	*18,170	..	*56,164
	2017	773,962	..	..	*22,796	..	*60,008
	2018	806,413	..	..	*27,568	..	60,960
	2019	833,335	..	..	*41,058	..	76,954
United Rep. of Tanzania	2016	545,532	..	199,763	6,517	..	46,345
	2017	553,309	..	200,729	6,618	..	47,643
	2018	561,390	..	203,328	6,741	..	49,088
	2019	561,390	..	203,342	7,761	..	48,989
Zambia	2016	259,105	..	44,236	*3,398	..	32,686
	2017	264,372	..	45,135	*3,475	..	33,350
	2018	269,585	..	46,025	*3,475	..	34,008
	2019	274,789	..	46,914	*3,475	..	34,665

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	1,029
..	..	..	..	..	1,033
..	..	..	..	..	1,039
..	..	..	..	..	1,039
..	..	..	..	..	64,634
..	..	..	..	..	67,492
..	..	..	..	..	67,626
..	..	..	..	..	72,994
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	53,603
..	..	..	..	..	53,996
..	..	..	..	..	54,416
..	..	..	..	..	54,843
..	..	..	..	..	135,966
..	..	..	..	..	139,436
..	..	..	..	..	143,069
..	..	..	..	..	146,828
..	..	..	..	..	374,831
..	..	..	..	..	362,158
..	..	..	..	..	361,777
..	..	..	..	..	357,302
..	..	..	..	..	8,110
..	..	..	..	..	6,896
..	..	..	..	..	6,937
..	..	..	..	..	6,992
..	..	..	..	..	6
..	..	..	..	..	6
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	203,810
..	..	..	..	..	204,864
..	..	..	..	..	206,686
..	..	..	..	..	207,768
..	..	..	..	..	114,891
..	..	..	..	..	106,949
..	..	..	..	..	113,531
..	..	..	..	..	113,531
..	..	..	..	..	45,248
..	..	..	..	..	45,320
..	..	..	..	..	45,636
..	..	..	..	..	45,864
..	..	..	..	..	761,082
..	..	..	..	..	796,757
..	..	..	..	..	833,981
..	..	..	..	..	874,394
..	..	..	..	..	751,812
..	..	..	..	..	760,655
..	..	..	..	..	771,460
..	..	..	..	..	772,493
..	..	..	..	..	306,739
..	..	..	..	..	312,983
..	..	..	..	..	319,085
..	..	..	..	..	325,178

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Zimbabwe	2016	186,790	..	114,301	2,117	..	266
	2017	189,702	..	116,083	2,180	..	269
	2018	192,394	..	117,730	2,687	..	273
	2019	195,139	..	119,410	2,725	..	277
<b>America, North</b>	<b>2016</b>	<b>1,648,130</b>	<b>317,313</b>	<b>589,247</b>	<b>346,361</b>	<b>827,488</b>	<b>71,492</b>
	<b>2017</b>	<b>1,671,335</b>	<b>308,947</b>	<b>536,792</b>	<b>348,820</b>	<b>808,160</b>	<b>71,678</b>
	<b>2018</b>	<b>1,746,892</b>	<b>354,331</b>	<b>614,216</b>	<b>382,186</b>	<b>906,606</b>	<b>71,929</b>
	<b>2019</b>	<b>1,744,512</b>	<b>348,416</b>	<b>604,263</b>	<b>376,703</b>	<b>898,323</b>	<b>72,537</b>
Anguilla	2016	*2	..	..	..	..	..
	2017	*2	..	..	..	..	..
	2018	*2	..	..	..	..	..
	2019	*2	..	..	..	..	..
Aruba	2016	20	..	..	..	..	6
	2017	20	..	..	..	..	7
	2018	21	..	..	..	..	7
	2019	22	..	..	..	..	8
Bahamas	2016	308	..	..	..	..	33
	2017	309	..	..	..	..	34
	2018	309	..	..	..	..	34
	2019	309	..	..	..	..	34
Barbados	2016	44	..	..	462	..	9
	2017	44	..	..	478	..	9
	2018	43	..	..	539	..	9
	2019	43	..	..	430	..	9
Belize	2016	969	..	..	3,429	..	92
	2017	995	..	..	4,270	..	91
	2018	1,021	..	..	4,295	..	91
	2019	1,048	..	..	4,416	..	91
Bermuda	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
British Virgin Islands	2016	14	..	..	..	..	2
	2017	15	..	..	..	..	2
	2018	15	..	..	..	..	2
	2019	15	..	..	..	..	2
Canada	2016	299,283	..	..	..	177,749	..
	2017	312,305	..	..	..	175,549	..
	2018	311,890	..	..	..	181,071	..
	2019	308,641	..	..	..	184,900	..
Costa Rica	2016	4,969	..	3,105	10,988	..	26
	2017	3,402	..	3,037	11,189	..	27
	2018	3,010	..	2,979	10,442	..	28
	2019	2,580	..	3,017	10,368	..	28
Cuba	2016	10,111	..	*88	29,295	..	2,726
	2017	9,638	..	*88	40,413	..	2,272
	2018	8,805	..	*88	48,463	..	1,894
	2019	8,440	..	*88	40,119	..	2,245
Dominica	2016	68	..	..	..	..	7
	2017	68	..	..	..	..	7
	2018	68	..	..	..	..	7
	2019	67	..	..	..	..	7
Dominican Republic	2016	10,313	..	468	9,229	..	1,658
	2017	10,446	..	490	11,410	..	1,720
	2018	10,667	..	516	11,514	..	1,796
	2019	*10,892	..	*525	*10,800	..	*1,888

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	1,394	..	..	304,602
..	..	1,045	..	..	309,010
..	..	1,664	..	..	314,476
..	..	1,718	..	..	318,992
<b>51,550</b>	<b>311,437</b>	<b>1,265,992</b>	<b>207,221</b>	<b>174,636</b>	<b>5,739,375</b>
<b>48,394</b>	<b>300,506</b>	<b>1,307,951</b>	<b>208,462</b>	<b>175,879</b>	<b>5,715,245</b>
<b>48,107</b>	<b>307,781</b>	<b>1,328,262</b>	<b>237,710</b>	<b>173,933</b>	<b>6,100,024</b>
<b>47,341</b>	<b>294,451</b>	<b>1,307,965</b>	<b>222,994</b>	<b>166,786</b>	<b>6,011,754</b>
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	20
..	..	..	..	..	20
..	..	..	..	..	21
..	..	..	..	..	22
..	..	..	..	..	308
..	..	..	..	..	309
..	..	..	..	..	309
..	..	..	..	..	309
..	..	..	..	..	506
..	..	..	..	..	522
..	..	..	..	..	582
..	..	..	..	..	473
..	..	..	..	..	4,398
..	..	..	..	..	5,265
..	..	..	..	..	5,316
..	..	..	..	..	5,464
..	*605	..	..	..	*605
..	*590	..	..	..	*590
..	*600	..	..	..	*600
..	*600	..	..	..	*600
..	..	..	..	..	14
..	..	..	..	..	15
..	..	..	..	..	15
..	..	..	..	..	15
5,960	7,658	35,939	15,088	16,977	558,654
6,137	7,658	36,582	12,917	16,977	568,125
6,314	9,958	37,011	10,010	16,977	573,230
6,491	9,944	41,084	11,666	16,977	579,703
..	..	677	..	9	19,748
..	..	586	..	13	18,226
..	..	608	..	16	17,055
..	..	746	..	11	16,723
..	..	*348	..	..	39,841
..	..	*348	..	..	50,487
..	..	*348	..	..	57,704
..	..	*348	..	..	48,994
..	..	..	..	..	68
..	..	..	..	..	68
..	..	..	..	..	68
..	..	..	..	..	67
..	..	..	..	*157	20,167
..	..	..	..	*157	22,503
..	..	..	..	*157	22,853
..	..	..	..	*157	*22,374



Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
El Salvador	2016	8,030	..	..	11,424	..	775
	2017	8,666	..	..	14,073	..	837
	2018	7,651	..	..	14,053	..	739
	2019	6,661	..	..	14,927	..	643
Greenland	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Grenada	2016	304	..	..	20	..	64
	2017	315	..	..	21	..	67
	2018	327	..	..	22	..	69
	2019	339	..	..	22	..	72
Guatemala	2016	223,935	..	..	85,152	..	1,711
	2017	237,545	..	..	53,779	..	1,800
	2018	242,245	..	..	51,340	..	1,896
	2019	246,902	..	..	53,779	..	1,994
Haiti	2016	139,415	..	..	972	..	37,583
	2017	141,050	..	..	983	..	38,015
	2018	143,143	..	..	998	..	38,580
	2019	145,267	..	..	1,013	..	39,152
Honduras	2016	72,222	..	1,901	13,291	..	4
	2017	49,389	..	1,922	23,000	..	1
	2018	55,298	..	1,498	21,848	..	6
	2019	53,793	..	1,708	15,940	..	5
Jamaica	2016	5,006	..	..	2,868	..	1,133
	2017	5,006	..	..	1,965	..	1,133
	2018	*5,006	..	..	1,544	..	1,121
	2019	4,788	..	..	1,888	..	738
Mexico	2016	251,887	..	38,276	70,264	3	..
	2017	250,601	..	0	76,659	6	..
	2018	249,084	..	0	107,146	..	..
	2019	247,919	..	0	113,249	..	..
Nicaragua	2016	45,297	..	1,444	14,231	..	295
	2017	45,435	..	1,633	16,165	..	305
	2018	46,147	..	1,712	15,717	..	309
	2019	46,373	..	1,641	16,287	..	297
Panama	2016	7,102	..	..	6,319	..	35
	2017	7,059	..	..	5,997	..	34
	2018	7,015	..	..	5,846	..	33
	2019	6,973	..	..	4,660	..	32
St. Kitts-Nevis	2016	0	..	..	..	..	0
	2017	0	..	..	..	..	0
	2018	0	..	..	..	..	0
	2019	*1	..	..	..	..	0
St. Lucia	2016	*670	..	..	..	..	125
	2017	*643	..	..	..	..	115
	2018	*617	..	..	..	..	106
	2019	*595	..	..	..	..	*91
St. Pierre-Miquelon	2016	5	..	..	..	..	..
	2017	5	..	..	..	..	..
	2018	5	..	..	..	..	..
	2019	5	..	..	..	..	..
St. Vincent-Grenadines	2016	66	..	..	..	..	11
	2017	65	..	..	..	..	11
	2018	65	..	..	..	..	11
	2019	65	..	..	..	..	11

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	531	19,985
..	..	..	..	510	23,249
..	..	..	..	495	22,199
..	..	..	..	570	22,158
..	94	..	..	..	94
..	94	..	..	..	94
..	*94	..	..	..	*94
..	*94	..	..	..	*94
..	..	..	..	..	324
..	..	..	..	..	336
..	..	..	..	..	348
..	..	..	..	..	361
..	..	..	..	186	309,273
..	..	..	..	308	291,632
..	..	..	..	430	294,015
..	..	..	..	308	300,989
..	..	241	..	..	140,628
..	..	234	..	..	142,267
..	..	238	..	..	144,379
..	..	241	..	..	146,521
..	..	..	..	..	87,414
..	..	..	..	..	74,311
..	..	..	..	..	78,644
..	..	..	..	..	71,442
..	..	..	..	..	7,874
..	..	..	..	..	6,971
..	..	..	..	..	*6,550
..	..	..	..	..	6,676
552	..	..	..	1,912	362,894
897	..	..	..	2,008	330,171
1,010	..	..	..	2,844	360,084
1,067	..	..	..	2,799	365,034
..	..	..	..	..	60,972
..	..	..	..	..	63,233
..	..	..	..	..	63,577
..	..	..	..	75	64,376
..	..	..	..	..	13,421
..	..	..	..	..	13,056
..	..	..	..	..	12,861
..	..	..	..	..	11,633
..	..	..	..	..	0
..	..	..	..	..	0
..	..	..	..	..	0
..	..	..	..	..	*1
..	..	..	..	..	*670
..	..	..	..	..	*643
..	..	..	..	..	*617
..	..	..	..	..	*595
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	66
..	..	..	..	..	65
..	..	..	..	..	65
..	..	..	..	..	65

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Trinidad and Tobago	2016	284	..	..	..	..	59
	2017	281	..	..	..	..	54
	2018	279	..	..	..	..	54
	2019	*276	..	..	..	..	54
Turks and Caicos Islands	2016	11	..	..	..	..	4
	2017	11	..	..	..	..	4
	2018	11	..	..	..	..	4
	2019	11	..	..	..	..	4
United States	2016	567,795	*317,313	*543,965	88,418	*649,736	25,134
	2017	588,020	*308,947	*529,623	*88,418	*632,605	25,134
	2018	654,148	*354,331	*607,424	*88,418	*725,535	25,134
	2019	652,486	*348,416	*597,284	*88,804	*713,423	25,134
<b>America, South</b>	<b>2016</b>	<b>1,542,289</b>	<b>..</b>	<b>764,056</b>	<b>1,458,379</b>	<b>158,880</b>	<b>196,373</b>
	<b>2017</b>	<b>1,601,682</b>	<b>..</b>	<b>829,851</b>	<b>1,448,608</b>	<b>160,297</b>	<b>204,965</b>
	<b>2018</b>	<b>1,631,039</b>	<b>..</b>	<b>922,204</b>	<b>1,392,711</b>	<b>164,822</b>	<b>213,927</b>
	<b>2019</b>	<b>1,628,002</b>	<b>..</b>	<b>708,486</b>	<b>1,423,764</b>	<b>163,425</b>	<b>218,044</b>
Argentina	2016	34,652	..	..	42,711	..	11,771
	2017	34,873	..	..	49,522	..	11,977
	2018	39,250	..	..	54,974	..	11,918
	2019	50,800	..	..	53,476	..	12,125
Bolivia (Plur. State of)	2016	7,452	..	38	19,794	..	1,416
	2017	6,006	..	0	19,821	..	1,419
	2018	5,756	..	0	*20,489	..	1,452
	2019	5,934	..	0	19,166	..	1,472
Brazil	2016	935,588	..	704,438	1,301,691	..	163,578
	2017	990,234	..	774,475	1,278,872	..	169,271
	2018	1,039,645	..	867,675	1,218,269	..	177,295
	2019	1,045,802	..	658,218	1,252,702	..	182,812
Chile	2016	227,188	..	..	..	94,908	1,918
	2017	241,105	..	..	..	93,577	3,621
	2018	240,328	..	..	..	100,675	4,165
	2019	237,692	..	..	..	98,853	3,704
Colombia	2016	95,706	..	427	47,021	12,681	286
	2017	88,193	..	467	50,323	12,900	601
	2018	87,884	..	478	51,676	12,345	383
	2019	81,512	..	489	48,159	11,851	350
Ecuador	2016	10,596	..	..	12,524	..	..
	2017	10,378	..	..	14,103	..	..
	2018	10,127	..	..	12,170	..	..
	2019	9,815	..	..	12,076	..	..
Falkland Is. (Malvinas)	2016	8	..	..	..	..	3
	2017	8	..	..	..	..	3
	2018	8	..	..	..	..	4
	2019	9	..	..	..	..	4
Guyana	2016	1,073	..	..	5,587	..	42
	2017	1,057	..	..	5,552	..	43
	2018	1,073	..	..	3,913	..	40
	2019	1,153	..	..	2,408	..	41
Paraguay	2016	113,888	..	24,563	..	..	12,139
	2017	117,769	..	23,335	..	..	13,103
	2018	101,576	..	23,931	..	..	12,801
	2019	98,604	..	23,692	..	..	11,871
Peru	2016	79,021	..	5,967	19,880	..	5,015
	2017	74,725	..	5,269	20,938	..	4,750
	2018	68,497	..	5,449	20,986	..	5,694
	2019	64,615	..	5,908	25,480	..	5,564

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	284
..	..	..	..	..	281
..	..	..	..	..	279
..	..	..	..	..	*276
..	..	..	..	..	11
..	..	..	..	..	11
..	..	..	..	..	11
..	..	..	..	..	11
45,038	303,080	1,228,787	192,133	154,864	4,091,129
41,360	292,165	1,270,200	195,545	155,906	4,102,788
40,783	297,129	1,290,057	227,701	153,014	4,438,540
39,783	283,813	1,265,545	211,328	145,888	4,346,770
<b>294</b>	..	<b>621,712</b>	<b>228,558</b>	<b>11,092</b>	<b>4,785,260</b>
<b>268</b>	..	<b>611,497</b>	<b>260,268</b>	<b>12,968</b>	<b>4,925,438</b>
<b>366</b>	..	<b>731,371</b>	<b>283,484</b>	<b>14,632</b>	<b>5,140,630</b>
<b>360</b>	..	<b>773,641</b>	<b>290,712</b>	<b>17,228</b>	<b>5,005,618</b>
..	..	18,867	97,851	..	194,082
..	..	23,450	105,653	..	213,498
..	..	23,638	89,350	..	207,212
..	..	22,780	79,010	..	206,065
..	..	..	..	..	27,284
..	..	..	..	..	25,827
..	..	25	..	..	*26,271
..	..	942	..	..	26,042
..	..	588,850	121,738	5,728	3,658,033
..	..	574,136	137,433	7,993	3,763,144
..	..	691,896	171,348	8,532	3,997,365
..	..	733,409	189,733	11,245	3,891,110
..	..	..	..	3,747	325,843
..	..	..	..	3,849	338,531
..	..	..	..	4,484	345,487
..	..	..	..	4,235	340,780
..	..	5,275	7,243	..	168,353
..	..	4,634	15,415	..	171,933
..	..	6,337	18,384	..	177,104
..	..	5,199	17,137	..	164,349
..	..	452	..	282	23,853
..	..	817	..	567	25,866
..	..	717	..	925	23,939
..	..	945	..	925	23,762
..	..	..	..	..	8
..	..	..	..	..	8
..	..	..	..	..	8
..	..	..	..	..	9
..	..	..	..	..	6,661
..	..	..	..	..	6,609
..	..	..	..	..	4,987
..	..	..	..	..	3,561
..	..	6,259	..	..	144,710
..	..	6,479	..	..	147,583
..	..	7,071	..	..	132,578
..	..	8,366	..	..	130,662
..	..	364	4	1,335	106,571
..	..	515	66	558	102,071
..	..	0	2,867	691	98,491
..	..	271	3,231	823	100,328

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Suriname	2016	914	..	735	..	..	..
	2017	915	..	736	..	..	..
	2018	916	..	737	..	..	..
	2019	916	..	751	..	..	..
Uruguay	2016	25,176	..	11,570	863	51,291	..
	2017	25,060	..	11,807	882	53,820	..
	2018	25,794	..	12,873	858	51,802	..
	2019	24,286	..	12,238	829	52,720	..
Venezuela (Bolivar. Rep.)	2016	11,027	..	16,319	8,307	..	207
	2017	11,358	..	13,762	8,595	..	177
	2018	10,184	..	11,061	9,375	..	177
	2019	6,862	..	7,190	9,467	..	102
<b>Asia</b>	<b>2016</b>	<b>11,027,950</b>	<b>149,986</b>	<b>4,349,298</b>	<b>1,603,291</b>	<b>147,329</b>	<b>359,457</b>
	<b>2017</b>	<b>11,079,084</b>	<b>151,267</b>	<b>4,430,679</b>	<b>1,814,508</b>	<b>164,990</b>	<b>381,631</b>
	<b>2018</b>	<b>11,094,322</b>	<b>151,328</b>	<b>4,369,551</b>	<b>2,030,507</b>	<b>176,397</b>	<b>341,535</b>
	<b>2019</b>	<b>11,318,071</b>	<b>160,006</b>	<b>4,401,349</b>	<b>1,931,384</b>	<b>169,246</b>	<b>347,468</b>
Afghanistan	2016	16,660	..	..	..	..	3,927
	2017	16,960	..	..	..	..	4,037
	2018	17,266	..	..	..	..	4,149
	2019	17,578	..	..	..	..	4,265
Armenia	2016	6,194	2,195	..	..	..	..
	2017	6,082	2,428	..	..	..	..
	2018	4,348	1,289	..	..	..	..
	2019	4,019	871	..	..	..	..
Azerbaijan	2016	1,268	..	..	..	..	6
	2017	1,379	..	..	..	..	6
	2018	1,347	..	187	..	..	3
	2019	1,279	..	408	..	..	3
Bahrain	2016	65	..	..	..	..	34
	2017	66	..	..	..	..	34
	2018	66	..	..	..	..	34
	2019	66	..	..	..	..	35
Bangladesh	2016	239,844	121,178	230,649	1,888	..	9,947
	2017	237,541	122,456	232,777	1,753	..	9,972
	2018	235,268	123,673	235,395	1,771	..	9,998
	2019	233,025	132,688	199,031	*1,949	..	10,023
Bhutan	2016	47,088	..	..	..	..	207
	2017	47,457	..	..	..	..	207
	2018	47,831	..	..	..	..	252
	2019	48,209	..	..	..	..	257
Brunei Darussalam	2016	106	..	..	..	..	9
	2017	106	..	..	..	..	10
	2018	106	..	..	..	..	10
	2019	106	..	..	..	..	10
Cambodia	2016	137,593	..	1,118	..	..	12,626
	2017	139,949	..	1,132	..	..	12,580
	2018	142,416	..	1,385	..	..	12,490
	2019	145,073	..	1,974	..	..	12,418
China	2016	1,545,363	..	1,613,903	251,547	..	49,090
	2017	1,517,369	..	1,753,712	259,293	..	48,689
	2018	1,489,067	..	1,788,786	294,675	..	48,289
	2019	1,461,314	..	1,788,786	261,810	..	47,892
China, Macao SAR	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	1,649
..	..	..	..	..	1,650
..	..	..	..	..	1,652
..	..	..	..	..	1,667
294	..	1,646	1,722	..	92,562
268	..	1,466	1,700	..	95,003
366	..	1,688	1,535	..	94,917
360	..	1,729	1,601	..	93,764
..	..	..	..	..	35,653
..	..	..	..	..	33,714
..	..	..	..	..	30,620
..	..	..	..	..	23,519
<b>542,152</b>	<b>165,091</b>	<b>147,754</b>	<b>479,120</b>	<b>75,225</b>	<b>18,687,196</b>
<b>599,306</b>	<b>160,706</b>	<b>158,091</b>	<b>523,364</b>	<b>81,769</b>	<b>19,163,763</b>
<b>616,886</b>	<b>167,692</b>	<b>163,470</b>	<b>633,498</b>	<b>103,405</b>	<b>19,507,057</b>
<b>598,753</b>	<b>168,693</b>	<b>156,929</b>	<b>734,659</b>	<b>111,631</b>	<b>19,750,722</b>
..	..	..	..	..	16,660
..	..	..	..	..	16,960
..	..	..	..	..	17,266
..	..	..	..	..	17,578
..	..	..	..	..	8,390
..	..	..	..	..	8,510
..	..	..	..	..	5,637
..	..	..	..	..	4,890
..	2,773	..	..	..	4,041
..	2,782	..	..	..	4,162
..	2,966	..	..	..	4,500
..	3,075	..	..	..	4,762
..	..	..	..	..	65
..	..	..	..	..	66
..	..	..	..	..	66
..	..	..	..	..	66
..	..	..	..	..	593,559
..	..	..	..	..	594,527
..	..	..	..	..	596,107
..	..	..	..	..	566,693
..	..	..	..	..	47,088
..	..	..	..	..	47,457
..	..	..	..	..	47,831
..	..	..	..	..	48,209
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	138,711
..	..	..	..	..	141,081
..	..	..	..	..	143,801
..	..	..	..	..	147,047
213,315	..	100,307	275,474	..	3,999,909
229,441	..	*106,664	321,757	..	4,188,235
221,906	..	*106,664	*323,840	..	4,224,938
230,386	..	*85,760	*323,840	..	4,151,896
..	3,384	..	..	..	3,384
..	3,339	..	..	..	3,339
..	3,386	..	..	..	3,386
..	3,878	..	..	..	3,878

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Cyprus	2016	642	..	146	..	..	59
	2017	781	..	175	..	..	73
	2018	786	..	163	..	..	48
	2019	798	..	246	..	..	40
Georgia	2016	16,007	102	123	..	..	..
	2017	15,115	103	59	..	..	..
	2018	11,233	125	42	..	..	..
	2019	10,101	137	32	..	..	..
India	2016	5,405,992	..	1,060,823	789,278	..	85,668
	2017	5,549,926	..	1,056,729	998,812	..	113,664
	2018	5,698,172	..	1,037,543	1,056,815	..	*82,187
	2019	5,851,142	..	1,047,001	957,070	..	*80,535
Indonesia	2016	1,076,605	..	389,530	56,012	..	22,096
	2017	1,032,622	..	388,084	*49,751	..	26,609
	2018	901,816	..	409,291	52,464	..	47,053
	2019	947,857	..	419,574	53,782	..	52,923
Iran (Islamic Rep. of)	2016	*73,994	*1,175	8,400	..	..	30
	2017	*73,994	*1,175	8,715	..	..	9
	2018	*73,994	*1,175	8,373	..	..	9
	2019	*73,994	*1,175	8,205	..	..	9
Iraq	2016	2,148	..	..	..	..	856
	2017	1,982	..	..	..	..	797
	2018	1,977	..	..	..	..	561
	2019	2,008	..	..	..	..	574
Israel	2016	183	..	..	..	..	..
	2017	183	..	..	..	..	..
	2018	183	..	..	..	..	..
	2019	183	..	..	..	..	..
Japan	2016	64,882	..	69,938	..	128,457	354
	2017	73,880	..	75,019	..	145,237	343
	2018	77,642	..	75,019	..	146,898	343
	2019	79,212	..	97,735	..	141,546	343
Jordan	2016	3,197	..	..	..	..	1,380
	2017	3,261	..	..	..	..	1,410
	2018	3,325	..	..	..	..	1,441
	2019	3,397	..	..	..	..	1,473
Kazakhstan	2016	2,202	..	..	..	..	14
	2017	2,202	..	..	..	..	14
	2018	2,171	..	..	..	..	47
	2019	2,436	..	..	..	..	41
Korea, Dem.Ppl's.Rep.	2016	46,297	..	..	..	..	4,838
	2017	46,520	..	..	..	..	4,891
	2018	46,740	..	..	..	..	4,930
	2019	46,952	..	..	..	..	4,970
Korea, Republic of	2016	67,887	..	0	..	9,581	..
	2017	77,939	..	0	..	7,172	..
	2018	88,260	..	..	..	8,378	..
	2019	76,104	..	..	..	7,857	..
Kuwait	2016	183	..	..	..	..	90
	2017	185	..	..	..	..	91
	2018	187	..	..	..	..	92
	2019	189	..	..	..	..	93
Kyrgyzstan	2016	43	..	..	..	..	..
	2017	60	..	..	..	..	..
	2018	96	..	..	..	..	..
	2019	85	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
197	9	..	0	492	1,486
122	37	..	54	504	1,673
158	52	..	..	554	1,712
164	101	..	..	579	1,889
..	..	..	..	0	16,232
..	..	..	..	..	15,277
..	..	..	..	..	11,399
..	..	..	10	..	10,279
..	..	..	..	..	7,256,093
..	..	..	..	..	7,605,467
..	..	..	..	..	7,792,529
..	..	..	..	..	7,855,214
..	..	..	118,396	456	1,640,999
..	..	..	110,624	496	1,581,577
..	..	..	199,745	513	1,563,829
..	..	..	271,993	526	1,693,731
..	..	..	..	282	*83,851
..	..	..	..	288	*84,172
..	..	..	..	288	*83,830
..	..	..	..	254	*83,628
..	..	..	..	..	2,148
..	..	..	..	..	1,982
..	..	..	..	..	1,977
..	..	..	..	..	2,008
..	..	..	..	795	978
..	..	..	..	960	1,143
..	..	..	..	878	1,061
..	..	..	..	806	989
217,268	31,224	54	442	6,000	518,264
233,211	28,918	4	442	4,616	561,327
249,544	30,849	4	442	9,058	589,456
229,430	32,023	4	442	9,253	589,644
..	..	..	..	100	3,297
..	..	..	..	100	3,361
..	..	..	..	*100	3,425
..	..	..	..	85	3,482
..	..	..	..	58	2,260
..	..	..	..	32	2,234
..	..	..	..	19	2,189
..	..	..	..	43	2,479
..	..	..	..	..	46,297
..	..	..	..	..	46,520
..	..	..	..	..	46,740
..	..	..	..	..	46,952
109,305	39,467	10,823	17,995	6,955	262,013
134,086	39,798	9,413	19,320	7,333	295,061
108,143	40,155	12,045	23,515	7,406	287,901
102,191	37,090	15,573	24,082	8,108	271,006
..	..	..	..	..	183
..	..	..	..	..	185
..	..	..	..	..	187
..	..	..	..	..	189
..	..	..	..	..	43
..	..	..	..	..	60
..	..	..	..	..	96
..	..	..	..	..	85



Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Lao People's Dem. Rep.	2016	*52,920	..	..	3,147	..	*6,048
	2017	53,063	..	..	*3,286	..	*6,048
	2018	52,710	..	..	*3,220	..	*6,136
	2019	52,363	..	..	4,031	..	*6,195
Lebanon	2016	4,971	..	..	..	..	89
	2017	*4,971	..	..	..	..	89
	2018	*4,971	..	..	..	..	89
	2019	4,971	..	..	..	..	89
Malaysia	2016	23,146	..	9,878	2,394	..	864
	2017	22,780	..	*8,196	*755	..	864
	2018	22,425	..	*12,581	*591	..	867
	2019	22,083	..	12,624	*518	..	458
Maldives	2016	149	..	..	..	..	25
	2017	149	..	..	..	..	26
	2018	150	..	..	..	..	26
	2019	151	..	..	..	..	26
Mongolia	2016	5,481	..	..	..	..	466
	2017	5,481	..	..	..	..	506
	2018	5,481	..	..	..	..	510
	2019	5,481	..	..	..	..	515
Myanmar	2016	429,209	..	25,790	..	..	856
	2017	431,655	..	25,943	..	..	856
	2018	432,788	..	26,005	..	..	856
	2019	426,076	..	25,811	..	..	856
Nepal	2016	355,065	18,504	17,505	11,729	..	295
	2017	361,118	18,579	17,804	11,821	..	325
	2018	365,996	18,829	18,045	*11,833	..	325
	2019	372,785	19,179	18,379	*11,832	..	328
Oman	2016	425	..	..	..	..	205
	2017	436	..	..	..	..	210
	2018	447	..	..	..	..	216
	2019	458	..	..	..	..	221
Other Asia	2016	6,888	..	..	..	..	..
	2017	6,281	..	..	..	..	..
	2018	6,324	..	..	..	..	..
	2019	6,102	..	..	..	..	..
Pakistan	2016	*316,531	*6,284	*260,975	141,268	..	2,466
	2017	*311,634	*5,969	*256,937	*141,268	..	2,516
	2018	*306,330	*5,671	*252,564	*149,508	..	2,567
	2019	*306,579	*5,387	*252,769	*149,508	..	2,617
Philippines	2016	*269,053	549	38,750	27,819	..	58,690
	2017	*272,290	557	38,808	32,046	..	60,800
	2018	*275,761	565	38,473	33,588	..	63,042
	2019	*279,500	569	38,065	32,768	..	65,372
Qatar	2016	47	..	..	..	..	23
	2017	47	..	..	..	..	23
	2018	47	..	..	..	..	23
	2019	47	..	..	..	..	23
Singapore	2016	271	..	..	..	..	143
	2017	267	..	..	..	..	141
	2018	262	..	..	..	..	139
	2019	258	..	..	..	..	137
Sri Lanka	2016	150,651	..	..	1,862	..	..
	2017	148,807	..	..	1,470	..	..
	2018	148,878	..	..	1,572	..	..
	2019	*156,358	..	..	1,651	..	..

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*56,067
..	..	..	..	..	56,349
..	..	..	..	..	55,930
..	..	..	..	..	56,394
..	..	..	..	..	4,971
..	..	..	..	..	*4,971
..	..	..	..	*83	*5,054
..	..	..	..	*415	5,386
..	..	..	18,437	..	53,855
..	..	..	16,928	..	48,659
..	..	..	25,502	..	61,100
..	..	..	44,374	..	79,598
..	..	..	..	..	149
..	..	..	..	..	149
..	..	..	..	..	150
..	..	..	..	..	151
..	..	..	..	..	5,481
..	..	..	..	..	5,481
..	..	..	..	..	5,481
..	..	..	..	..	5,481
..	..	..	..	1	455,000
..	..	..	..	1	457,599
..	..	..	..	1	458,794
..	..	..	..	1	451,888
..	..	..	..	11,729	414,532
..	..	..	..	11,821	421,143
..	..	..	..	12,019	426,722
..	..	..	..	12,133	434,307
..	..	..	..	..	425
..	..	..	..	..	436
..	..	..	..	..	447
..	..	..	..	..	458
..	55,956	438	..	295	63,577
..	54,380	187	..	272	61,120
..	56,731	7	..	268	63,330
..	57,322	3	..	219	63,645
..	..	..	..	..	*725,057
..	..	..	..	..	*715,808
..	..	..	..	..	*714,073
..	..	..	..	..	*714,243
..	447	8,314	7,050	..	*351,982
..	527	8,608	6,591	..	*359,427
..	543	11,130	6,645	..	*366,705
..	634	13,030	7,044	..	*371,611
..	..	..	..	..	47
..	..	..	..	..	47
..	..	..	..	..	47
..	..	..	..	..	47
..	27,436	..	..	..	27,707
..	26,741	..	..	..	27,008
..	24,811	..	..	..	25,073
..	25,133	..	..	..	25,392
..	..	..	..	..	152,512
..	..	..	..	..	150,277
..	..	..	..	..	150,450
..	..	..	..	..	*158,009

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
State of Palestine	2016	3,460	..	564	..	..	..
	2017	1,964	..	588	..	..	..
	2018	2,022	..	398	..	..	..
	2019	2,074	..	1,190	..	..	..
Syrian Arab Republic	2016	333	..	..	..	..	30
	2017	305	..	..	..	..	30
	2018	304	..	..	..	..	30
	2019	305	..	..	..	..	80
Tajikistan	2016	50,225	..	..	..	..	..
	2017	*50,225	..	..	..	..	..
	2018	*50,225	..	..	..	..	..
	2019	50,142	..	..	..	..	..
Thailand	2016	345,454	..	448,520	271,799	9,291	91,539
	2017	315,620	..	391,430	262,756	12,581	78,057
	2018	233,303	..	312,620	364,892	21,121	43,159
	2019	229,289	..	340,594	389,444	19,843	42,510
Timor-Leste	2016	850	..	..	..	..	..
	2017	813	..	..	..	..	..
	2018	776	..	..	..	..	..
	2019	742	..	..	..	..	..
Turkey	2016	68,831	..	40,551	..	..	..
	2017	56,773	..	45,407	..	..	..
	2018	40,654	..	30,720	..	..	..
	2019	43,794	..	30,898	..	..	..
Turkmenistan	2016	86	..	..	..	..	..
	2017	104	..	..	..	..	..
	2018	104	..	..	..	..	..
	2019	104	..	..	..	..	..
Uzbekistan	2016	*1,763	..	..	..	..	..
	2017	*924	..	..	..	..	..
	2018	*926	..	..	..	..	..
	2019	*929	..	..	..	..	..
Viet Nam	2016	182,700	..	132,135	44,548	..	4,543
	2017	182,700	..	129,162	51,497	..	5,723
	2018	*293,836	..	121,961	59,578	..	9,588
	2019	*346,927	..	118,026	67,021	..	10,060
Yemen	2016	4,999	..	..	..	..	1,947
	2017	5,120	..	..	..	..	1,985
	2018	5,306	..	..	..	..	2,033
	2019	5,429	..	..	..	..	2,080
<b>Europe</b>	<b>2016</b>	<b>3,593,320</b>	<b>19,435</b>	<b>280,753</b>	<b>19,820</b>	<b>524,767</b>	<b>13,248</b>
	<b>2017</b>	<b>3,609,912</b>	<b>17,009</b>	<b>308,914</b>	<b>20,547</b>	<b>543,284</b>	<b>13,890</b>
	<b>2018</b>	<b>3,645,688</b>	<b>17,180</b>	<b>336,888</b>	<b>20,528</b>	<b>543,966</b>	<b>13,503</b>
	<b>2019</b>	<b>3,711,663</b>	<b>17,735</b>	<b>340,850</b>	<b>20,608</b>	<b>563,226</b>	<b>12,618</b>
Albania	2016	7,787	..	..	..	..	..
	2017	6,959	..	..	..	..	..
	2018	6,710	..	..	..	..	..
	2019	6,627	..	..	..	..	..
Andorra	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Austria	2016	154,659	..	5,932	..	32,785	30
	2017	161,236	..	5,904	..	32,663	36
	2018	151,477	..	4,941	..	33,651	41
	2019	153,709	..	2,601	..	33,643	42

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	4,024
..	..	..	..	..	2,552
..	..	..	..	..	2,420
..	..	..	..	..	3,264
..	..	..	..	..	333
..	..	..	..	..	305
..	..	..	..	..	304
..	..	..	..	..	305
..	..	..	..	..	50,225
..	..	..	..	..	*50,225
..	..	..	..	..	*50,225
..	..	..	..	..	50,142
..	4,395	25,889	39,008	33,341	1,177,697
..	4,183	31,089	45,193	37,778	1,100,632
..	8,029	31,578	49,782	51,723	1,073,049
..	9,001	40,342	58,422	54,385	1,141,320
..	..	..	..	..	850
..	..	..	..	..	813
..	..	..	..	..	776
..	..	..	..	..	742
2,067	..	1,930	2,318	14,721	130,418
2,446	..	2,126	2,455	17,569	126,775
37,135	171	2,042	4,027	20,496	135,245
36,581	436	2,217	4,453	24,824	143,202
..	..	..	..	..	86
..	..	..	..	..	104
..	..	..	..	..	104
..	..	..	..	..	104
..	..	..	..	..	*1,763
..	..	..	..	..	*924
..	..	..	..	..	*926
..	..	..	..	..	*929
..	..	..	..	..	359,383
..	..	..	..	..	363,359
..	..	..	..	..	*475,375
..	..	..	..	..	*531,974
..	..	..	..	..	4,999
..	..	..	..	..	5,120
..	..	..	..	..	5,306
..	..	..	..	..	5,429
<b>431,014</b>	<b>874,749</b>	<b>116,677</b>	<b>438,693</b>	<b>688,699</b>	<b>6,987,927</b>
<b>412,146</b>	<b>902,650</b>	<b>122,192</b>	<b>490,653</b>	<b>704,056</b>	<b>7,131,363</b>
<b>450,023</b>	<b>901,846</b>	<b>125,246</b>	<b>516,077</b>	<b>702,187</b>	<b>7,259,628</b>
<b>518,341</b>	<b>921,604</b>	<b>121,662</b>	<b>550,496</b>	<b>717,109</b>	<b>7,483,293</b>
..	..	..	..	..	7,787
..	..	..	..	..	6,959
..	..	..	..	..	6,710
..	..	..	..	..	6,627
..	*255	..	..	..	*255
..	*306	..	..	..	*306
..	*366	..	..	..	*366
..	*377	..	..	..	*377
16,943	21,169	5,709	11,040	12,515	260,752
16,538	18,622	5,681	9,097	13,021	262,762
15,332	19,441	5,236	9,377	9,505	248,959
16,468	19,796	5,042	10,595	8,975	250,830

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Belarus	2016	68,613	..	2,403	..	..	118
	2017	75,446	..	2,345	..	..	89
	2018	60,492	..	2,084	..	..	103
	2019	66,963	..	2,184	..	..	189
Belgium	2016	45,175	783	6,204	..	1,762	..
	2017	41,907	841	6,406	..	1,732	..
	2018	42,353	741	6,630	..	1,817	..
	2019	41,185	818	6,611	..	1,548	..
Bosnia and Herzegovina	2016	30,729	..	..	..	..	1,328
	2017	28,596	..	..	..	..	1,180
	2018	60,650	..	..	..	..	885
	2019	60,775	..	..	..	..	944
Bulgaria	2016	42,194	..	1,261	..	4,733	118
	2017	41,930	..	1,103	..	5,104	72
	2018	51,470	..	8,079	..	4,273	60
	2019	52,470	..	11,043	..	4,331	62
Croatia	2016	64,080	..	32	..	..	266
	2017	64,565	..	19	..	..	280
	2018	62,621	..	32	..	..	290
	2019	62,228	..	30	..	..	416
Czechia	2016	103,427	..	5,789	..	15,114	..
	2017	103,824	..	6,379	..	15,281	..
	2018	108,298	..	5,576	..	14,675	..
	2019	116,958	..	5,331	..	18,803	..
Denmark	2016	51,000	..	19,698	..	..	..
	2017	49,255	..	20,219	..	..	..
	2018	50,688	..	17,606	..	..	..
	2019	47,114	..	17,963	..	..	..
Estonia	2016	50,850	..	6,206	..	1,385	..
	2017	51,714	..	9,175	..	1,382	..
	2018	55,681	..	11,914	..	1,404	..
	2019	58,683	..	13,906	..	1,229	..
Finland	2016	200,688	239	1,684	..	146,307	..
	2017	202,437	212	1,698	..	154,761	..
	2018	201,498	308	1,773	..	167,032	..
	2019	202,704	249	1,986	..	169,744	..
France	2016	396,199	2,164	5,818	6,374	35,462	..
	2017	383,265	2,193	5,887	6,156	35,747	..
	2018	382,031	2,340	6,816	5,835	31,967	..
	2019	378,520	2,806	6,781	6,262	32,447	..
Germany	2016	454,508	6,068	7,587	..	25,910	974
	2017	454,708	3,660	9,098	..	31,453	974
	2018	476,488	3,653	13,404	..	26,710	974
	2019	491,439	3,277	13,321	..	27,299	974
Greece	2016	26,947	..	6,440	..	..	30
	2017	27,655	..	6,199	..	..	30
	2018	25,977	..	6,769	..	..	59
	2019	25,746	..	6,532	..	..	30
Hungary	2016	87,340	323	12,624	..	283	..
	2017	86,860	256	11,526	..	310	..
	2018	76,281	241	12,495	..	303	..
	2019	73,900	379	11,258	..	377	..
Iceland	2016	465	..	..	..	..	..
	2017	680	..	..	..	..	..
	2018	902	..	..	..	..	..
	2019	..	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
1,286	..	..	736	390	73,428
1,187	..	..	736	468	80,182
970	..	..	515	507	64,568
792	..	..	589	465	70,993
13,290	30,460	6,354	8,648	9,819	122,495
12,118	30,895	7,293	10,654	9,432	121,276
13,038	30,512	7,598	9,281	9,555	121,525
13,154	30,481	8,513	9,358	9,708	121,378
..	..	..	..	..	30,729
..	..	..	..	63	28,659
..	..	..	..	97	60,747
..	..	..	..	67	60,842
1,319	1,061	724	2,282	2,511	56,084
1,621	1,240	577	3,384	1,958	56,918
2,095	2,415	465	4,657	2,245	75,700
2,785	2,472	439	6,299	2,133	81,973
425	..	..	37	1,952	66,526
483	..	..	14	2,672	67,752
818	..	..	15	3,081	66,568
1,129	..	..	10	3,442	66,838
10,361	5,968	3,109	5,483	25,161	174,412
10,228	6,422	2,743	5,793	25,444	176,115
12,061	6,115	2,013	7,149	25,279	181,165
12,499	6,376	2,493	9,142	24,332	195,934
..	34,478	192	..	9,048	114,416
..	35,447	139	..	10,906	115,966
..	33,598	172	..	13,354	115,418
..	33,912	105	..	16,605	115,700
717	1,970	..	..	722	61,850
606	2,123	..	..	540	65,540
611	2,117	..	..	571	72,298
614	1,791	..	..	581	76,804
1,644	22,201	1,288	3,864	4,694	382,609
2,001	23,808	1,293	10,992	7,147	404,348
2,048	24,865	1,246	10,145	7,804	416,719
1,818	25,214	1,130	12,187	7,941	422,973
20,604	104,558	24,451	74,226	31,410	701,266
17,628	106,436	23,589	71,415	34,009	686,325
18,712	105,330	26,569	83,064	36,822	699,486
20,153	105,115	25,788	75,705	40,888	694,465
59,095	259,750	21,419	114,779	320,998	1,270,114
54,307	269,372	21,180	118,054	323,250	1,285,082
46,695	259,778	19,459	123,059	316,484	1,285,730
48,440	258,838	17,062	131,854	316,085	1,307,616
2,517	..	..	5,594	4,258	45,756
0	..	..	5,649	4,484	43,987
1,213	..	..	6,312	4,724	44,995
1,758	..	253	7,206	5,233	46,726
3,546	4,470	11,417	5,741	3,708	129,452
3,777	3,606	11,792	5,814	4,141	128,082
4,322	3,417	12,757	5,925	3,916	119,657
3,339	4,445	13,588	6,182	3,769	117,237
..	..	..	..	56	521
..	..	..	..	50	730
..	..	..	..	61	963
..	..	..	..	51	51

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Ireland	2016	8,658	866	..	..	..	..
	2017	9,418	955	..	..	..	..
	2018	9,365	1,091	..	..	..	..
	2019	8,896	1,022	..	..	..	..
Isle of Man	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Italy	2016	293,118	..	9,672	..	..	295
	2017	317,411	..	10,247	..	..	295
	2018	284,621	..	11,211	..	..	295
	2019	291,986	..	12,043	..	..	295
Jersey	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Kosovo	2016	14,823	..	..	..	..	..
	2017	15,305	..	..	..	..	..
	2018	15,415	..	..	..	..	..
	2019	13,364	..	..	..	..	..
Latvia	2016	86,776	..	136	..	..	354
	2017	85,124	..	267	..	..	371
	2018	102,172	..	277	..	..	257
	2019	102,427	..	358	..	..	248
Liechtenstein	2016	202	..	..	..	..	..
	2017	189	..	..	..	..	..
	2018	225	..	..	..	..	..
	2019	207	..	..	..	..	..
Lithuania	2016	49,647	..	731	..	..	30
	2017	53,960	..	721	..	..	9
	2018	52,657	..	1,175	..	..	15
	2019	50,969	..	1,234	..	..	15
Luxembourg	2016	2,461	..	186	..	..	..
	2017	2,727	..	201	..	..	..
	2018	3,655	..	208	..	..	..
	2019	4,535	..	226	..	..	..
Malta	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
Montenegro	2016	8,395	..	..	..	..	24
	2017	9,235	..	..	..	..	21
	2018	7,964	..	..	..	..	18
	2019	*8,506	..	..	..	..	22
Netherlands	2016	41,401	..	12,842	..	..	..
	2017	40,729	..	16,326	..	..	..
	2018	44,673	..	11,457	..	..	..
	2019	48,210	..	12,082	..	..	..
North Macedonia	2016	11,817	..	199	..	..	..
	2017	12,072	..	223	..	..	..
	2018	10,206	..	261	..	..	..
	2019	9,428	..	260	..	..	..
Norway	2016	35,715	..	..	..	..	..
	2017	36,657	..	..	..	425	..
	2018	36,378	..	..	..	369	..
	2019	38,132	..	..	..	408	..

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	5,467	..	994	2,328	18,313
..	8,677	..	1,053	2,322	22,425
..	11,953	..	1,120	2,108	25,637
..	11,812	..	1,222	2,092	25,043
..	*411	..	..	..	*411
..	*396	..	..	..	*396
..	*546	..	..	..	*546
..	*542	..	..	..	*542
13,082	72,906	7,579	21,197	78,505	496,059
11,765	71,443	8,063	25,477	79,453	523,859
11,989	70,893	9,011	27,659	79,221	494,605
12,951	73,103	9,118	32,085	84,288	515,574
..	*813	..	..	..	*813
..	*799	..	..	..	*799
..	*760	..	..	..	*760
..	*764	..	..	..	*764
..	..	..	..	..	14,823
..	..	..	..	..	15,305
..	..	..	..	..	15,415
..	..	..	..	..	13,364
113	256	134	1,656	3,762	92,833
73	362	233	1,965	3,902	91,926
119	558	210	3,252	3,643	110,231
108	652	23	3,044	3,376	109,987
..	*706	..	..	20	*929
..	*703	..	..	23	*914
..	*759	..	..	24	*1,008
..	*785	..	..	25	*1,016
486	2,495	375	3,790	1,341	58,866
183	2,476	359	4,349	1,350	63,398
644	1,692	458	5,675	1,554	63,855
706	1,498	456	6,146	1,632	62,640
546	1,400	..	..	833	5,426
578	1,557	..	..	867	5,930
624	1,552	..	..	915	6,954
620	1,567	..	..	753	7,701
..	..	..	37	80	117
..	..	..	10	77	87
..	..	..	..	69	69
..	..	..	..	69	69
..	..	..	..	..	8,395
..	..	..	..	..	9,235
..	..	..	..	..	7,964
..	..	..	..	..	*8,506
..	61,527	..	53,802	13,339	182,911
..	60,374	..	70,987	13,432	201,849
..	60,110	1,672	67,675	13,655	199,242
..	60,667	1,526	69,979	14,904	207,368
..	..	..	0	..	12,016
..	..	..	0	..	12,295
..	..	..	0	..	10,467
..	..	..	..	..	9,688
3,356	15,245	..	2,208	1,200	57,724
3,192	15,812	..	4,158	1,535	61,779
3,525	16,600	..	3,733	2,226	62,832
3,568	16,267	..	3,175	3,631	65,180



Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Poland	2016	206,522	..	50,806	..	11,249	..
	2017	198,761	..	47,616	..	11,574	..
	2018	198,685	377	45,408	..	10,788	..
	2019	201,031	363	48,295	..	10,245	..
Portugal	2016	61,818	..	3,196	428	43,610	266
	2017	58,938	..	5,888	313	44,530	259
	2018	57,515	..	9,653	406	43,272	259
	2019	67,503	..	7,024	489	43,452	266
Republic of Moldova	2016	21,539	12	7,246	..	..	30
	2017	26,284	6	4,936	..	..	30
	2018	28,063	11	4,559	..	..	12
	2019	23,591	7	3,362	..	..	15
Romania	2016	149,864	..	..	..	..	67
	2017	149,227	..	..	..	..	36
	2018	144,164	..	..	..	..	33
	2019	144,700	..	..	..	..	*33
Russian Federation	2016	121,911	..	..	..	..	2,065
	2017	107,613	..	..	..	..	2,163
	2018	119,089	..	..	..	..	2,328
	2019	126,553	..	..	..	..	1,963
Serbia	2016	46,259	..	..	..	..	443
	2017	45,477	..	..	..	..	585
	2018	47,041	..	..	..	..	413
	2019	49,250	..	..	..	..	354
Slovakia	2016	19,118	..	2,153	..	13,672	..
	2017	18,957	..	2,137	..	14,125	..
	2018	22,518	..	2,620	..	12,861	..
	2019	38,456	..	7,309	..	12,797	..
Slovenia	2016	26,988	..	236	..	..	..
	2017	26,075	..	245	..	..	..
	2018	23,314	..	218	..	..	..
	2019	22,643	..	240	..	..	..
Spain	2016	145,115	449	38,520	13,018	25,917	1,062
	2017	148,983	449	38,923	14,078	26,942	1,062
	2018	145,978	449	39,060	14,287	28,017	1,062
	2019	147,062	449	38,411	13,857	31,658	1,062
Sweden	2016	225,762	52	..	..	166,578	..
	2017	229,283	103	..	..	167,254	..
	2018	219,212	106	..	..	166,828	..
	2019	220,661	64	..	..	175,245	..
Switzerland	2016	42,350	..	..	..	..	..
	2017	42,750	..	..	..	..	..
	2018	39,990	..	..	..	..	..
	2019	42,330	..	..	..	..	..
Ukraine	2016	114,133	..	..	..	..	5,753
	2017	121,861	..	..	..	..	6,402
	2018	141,044	..	..	..	..	6,402
	2019	133,765	..	..	..	..	5,691
United Kingdom	2016	74,267	8,479	73,151	..	..	..
	2017	71,840	8,334	95,227	..	..	..
	2018	78,126	7,862	112,662	..	..	..
	2019	78,438	8,302	110,457	..	..	..
Oceania	2016	139,498	..	15,762	136,078	20,073	460
	2017	181,317	..	17,950	115,744	15,727	508
	2018	177,088	..	20,247	105,189	15,220	511
	2019	178,020	..	18,251	96,554	15,438	529

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
18,795	15,484	5,281	33,046	10,930	352,113
22,229	18,077	5,168	33,016	11,747	348,188
27,023	19,412	5,055	32,629	12,072	351,449
28,437	20,415	5,468	35,341	12,498	362,091
2,961	8,680	82	12,291	3,364	136,430
2,657	8,738	..	13,162	3,561	137,787
2,786	8,120	..	13,373	3,453	138,579
3,061	8,666	..	14,455	3,355	148,005
142	..	0	..	361	29,300
316	..	..	..	282	31,824
2,091	..	..	..	313	35,037
1,922	..	..	..	292	29,174
3,164	193	1,528	6,293	739	161,780
3,845	207	1,192	6,129	755	161,357
7,203	188	944	6,927	865	160,291
6,140	188	1,447	7,726	794	160,995
218,670	..	..	..	..	340,581
215,266	..	..	..	..	322,879
244,991	..	..	..	..	364,080
305,868	..	..	..	..	432,421
45	..	..	..	307	46,611
44	..	..	..	723	46,244
49	..	..	..	958	48,048
51	..	..	..	1,190	50,491
7,583	1,530	3,136	4,048	6,357	57,597
7,283	2,214	3,136	4,011	6,384	58,247
6,784	1,161	3,296	4,048	6,228	59,516
7,311	2,386	3,564	4,011	5,984	81,819
1,876	..	..	..	1,264	30,364
2,014	..	..	..	1,076	29,410
2,409	..	..	..	1,018	26,959
2,597	..	..	..	930	26,410
..	19,698	6,968	50,048	10,264	309,997
..	21,743	8,871	64,842	10,943	335,773
2,971	21,280	11,075	63,252	11,089	337,459
2,412	21,412	11,504	73,065	10,898	350,728
746	59,857	6,802	4,011	7,265	471,073
748	62,730	6,600	2,429	7,445	476,592
755	58,296	6,915	9,494	7,359	468,965
744	62,211	6,694	11,850	7,600	485,069
10,790	48,150	..	258	4,898	106,446
11,220	48,140	..	278	5,059	107,447
11,070	48,750	..	221	5,238	105,270
11,670	49,050	..	501	5,564	109,115
..	..	161	..	1,367	115,660
2,507	..	563	..	1,601	126,532
..	..	107	..	1,995	143,147
..	..	1,874	..	2,028	137,667
16,912	73,591	9,970	12,586	112,933	381,888
7,732	79,924	13,722	17,186	113,932	407,896
7,075	91,262	10,988	17,517	114,177	439,669
7,227	100,801	5,574	18,768	114,931	444,498
<b>3,915</b>	..	<b>4,904</b>	<b>1,987</b>	<b>20,773</b>	<b>342,991</b>
<b>3,771</b>	..	<b>4,100</b>	<b>161</b>	<b>18,290</b>	<b>357,058</b>
<b>3,785</b>	..	<b>5,099</b>	<b>48</b>	<b>19,384</b>	<b>346,061</b>
<b>3,609</b>	..	<b>5,347</b>	<b>37</b>	<b>19,606</b>	<b>336,861</b>

Table 12

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Australia	2016	34,649	..	933	131,669	20,073	..
	2017	76,467	..	3,018	110,298	*15,727	..
	2018	73,548	..	5,257	100,228	15,220	..
	2019	72,141	..	2,665	91,314	15,438	..
Fiji	2016	338	..	..	3,521	..	73
	2017	338	..	..	4,533	..	73
	2018	338	..	..	4,023	..	73
	2019	338	..	..	4,255	..	74
French Polynesia	2016	42	..	..	..	..	16
	2017	42	..	..	..	..	16
	2018	42	..	..	..	..	16
	2019	43	..	..	..	..	*16
Kiribati	2016	30	..	*502	..	..	12
	2017	30	..	*510	..	..	12
	2018	30	..	*512	..	..	12
	2019	31	..	*514	..	..	12
Marshall Islands	2016	..	..	*190	..	..	..
	2017	..	..	*194	..	..	..
	2018	..	..	*195	..	..	..
	2019	..	..	*197	..	..	..
Micronesia (Fed. States of)	2016	24	..	..	..	..	11
	2017	24	..	..	..	..	11
	2018	24	..	..	..	..	11
	2019	25	..	..	..	..	11
New Caledonia	2016	115	..	..	..	..	18
	2017	115	..	..	..	..	18
	2018	117	..	..	..	..	19
	2019	118	..	..	..	..	19
New Zealand	2016	45,316	..	..	..	..	..
	2017	45,198	..	..	..	..	..
	2018	43,881	..	..	..	..	..
	2019	43,419	..	..	..	..	..
Niue	2016	1	..	..	..	..	0
	2017	1	..	..	..	..	0
	2018	1	..	..	..	..	0
	2019	1	..	..	..	..	0
Papua New Guinea	2016	55,813	..	*11,673	888	..	248
	2017	55,936	..	*11,773	913	..	293
	2018	55,936	..	*11,832	938	..	293
	2019	*58,733	..	*12,423	*985	..	308
Samoa	2016	1,097	..	385	..	..	16
	2017	*1,089	..	*377	..	..	16
	2018	*1,089	..	*377	..	..	16
	2019	*1,087	..	*377	..	..	17
Solomon Islands	2016	1,223	..	*2,079	..	..	42
	2017	1,227	..	*2,078	..	..	43
	2018	1,231	..	*2,074	..	..	44
	2019	1,235	..	*2,075	..	..	*45
Tonga	2016	19	..	..	..	..	7
	2017	19	..	..	..	..	7
	2018	19	..	..	..	..	7
	2019	19	..	..	..	..	7
Vanuatu	2016	831	..	..	..	..	18
	2017	831	..	..	..	..	19
	2018	831	..	..	..	..	19
	2019	831	..	..	..	..	20

Table 12

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
3,915	..	4,770	1,987	17,471	215,468
3,771	..	4,020	147	14,970	228,418
3,785	..	4,985	37	16,103	219,163
3,609	..	5,333	37	16,325	206,862
..	..	..	..	..	3,859
..	..	..	..	..	4,871
..	..	..	..	..	4,361
..	..	..	..	..	4,593
..	..	..	..	..	42
..	..	..	..	..	42
..	..	..	..	..	42
..	..	..	..	..	43
..	..	..	..	..	*532
..	..	..	..	..	*540
..	..	..	..	..	*542
..	..	..	..	..	*545
..	..	..	..	..	*190
..	..	..	..	..	*194
..	..	..	..	..	*195
..	..	..	..	..	*197
..	..	..	..	..	24
..	..	..	..	..	24
..	..	..	..	..	24
..	..	..	..	..	25
..	..	*7	..	..	122
..	..	*5	..	..	120
..	..	*5	..	..	123
..	..	*5	..	..	124
..	..	107	..	3,302	48,725
..	..	75	14	3,320	48,606
..	..	104	11	3,281	47,277
..	..	..	..	3,281	46,700
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	68,374
..	..	..	..	..	68,622
..	..	..	..	..	68,706
..	..	..	..	..	*72,141
..	..	..	..	0	1,482
..	..	..	..	0	*1,466
..	..	..	..	0	*1,466
..	..	..	..	0	*1,464
..	..	..	..	..	*3,302
..	..	..	..	..	*3,305
..	..	..	..	..	*3,305
..	..	..	..	..	*3,310
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..	19	..	..	850
..	..	0	..	..	831
..	..	5	..	..	837
..	..	8	..	..	840

**Table 13**

**Production, trade and supply of conventional crude oil**

Thousand metric tons; kilograms per capita; reserves production ratio (R/P) in years

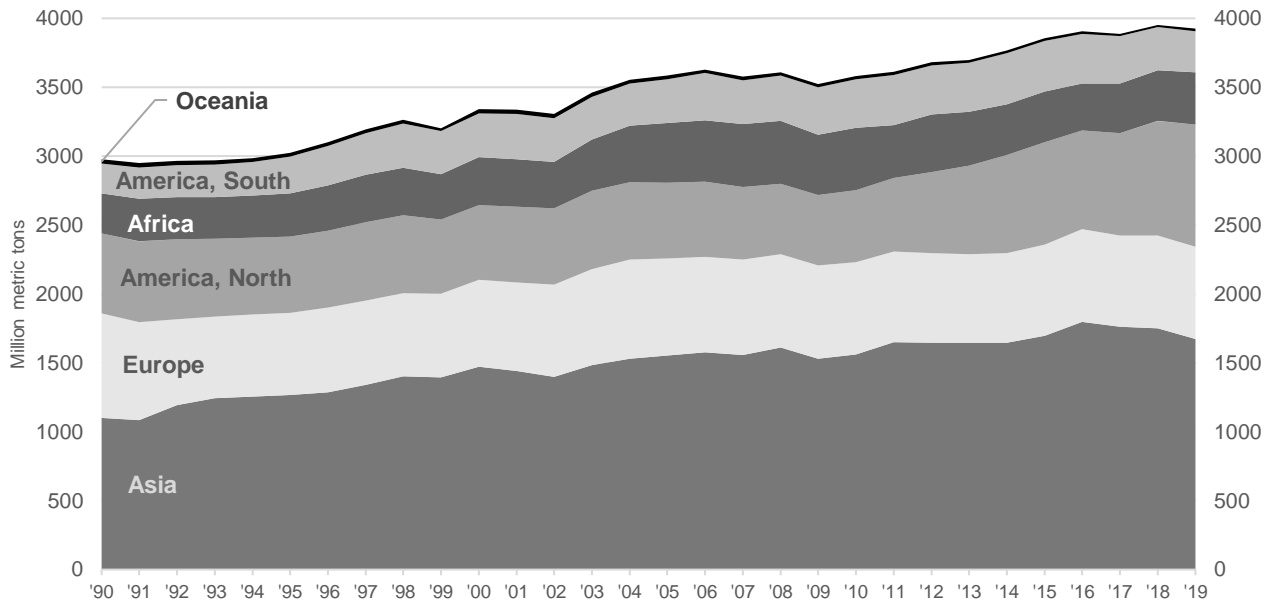
**Table Notes**

The **Reserves / Production** ratio refers to crude oil and natural gas liquids.

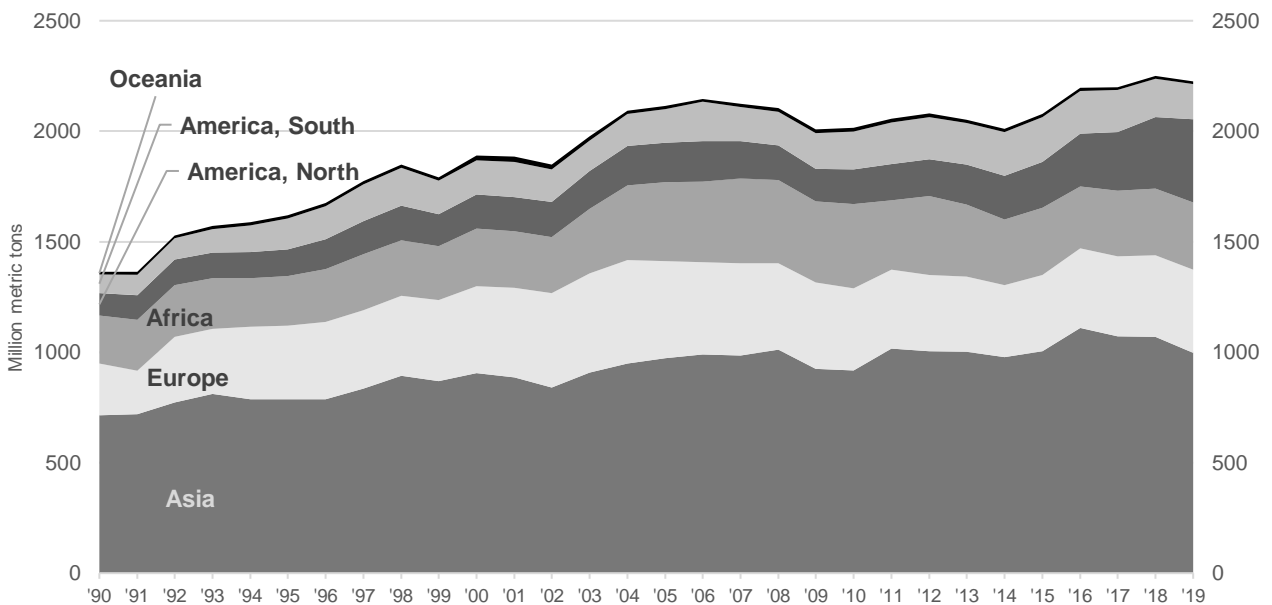
Data on reserves were taken from the Survey of Energy Resources, World Energy Council.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

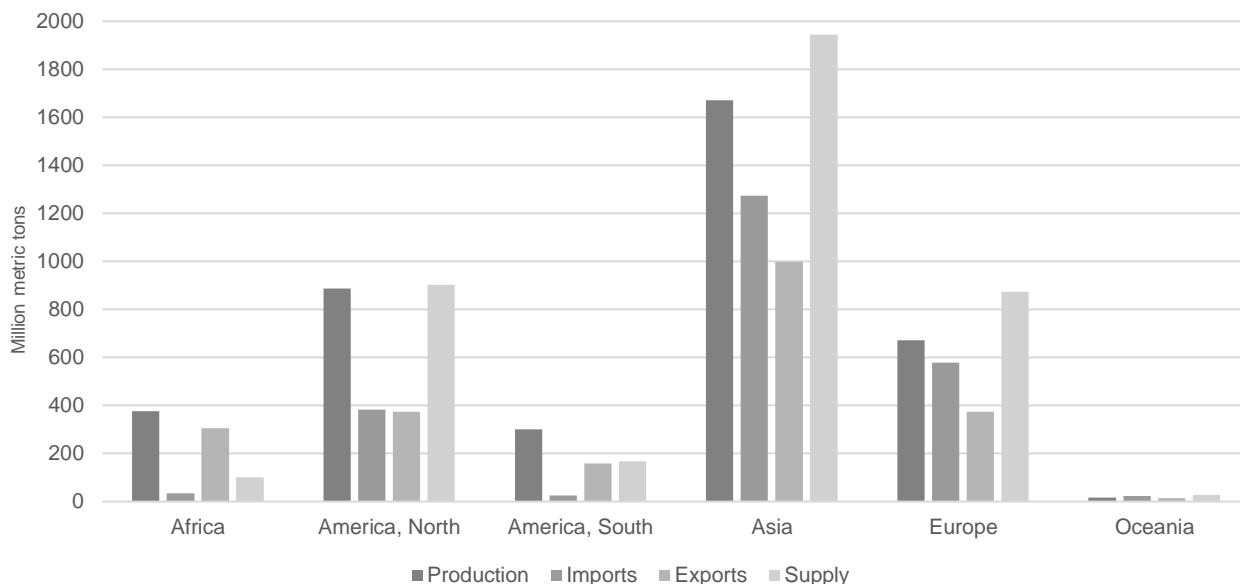
**Figure 36: Production of conventional crude oil by region, 1990-2019**



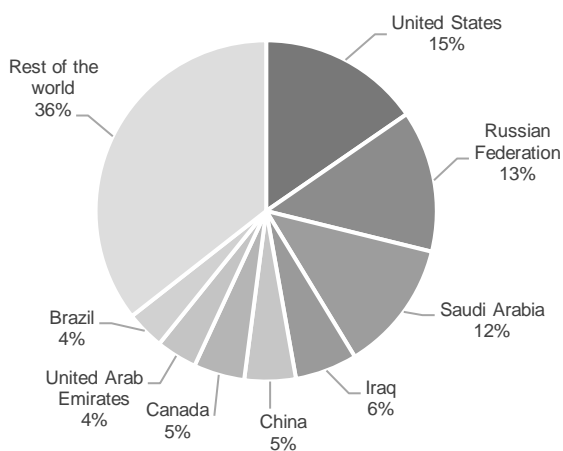
**Figure 37: Exports of conventional crude oil by region, 1990-2019**



**Figure 38: Production, trade and supply of conventional crude oil by region, 2019**



**Figure 39: Major crude oil producing countries, 2019**



**Figure 40: Major crude oil consuming countries, 2019**

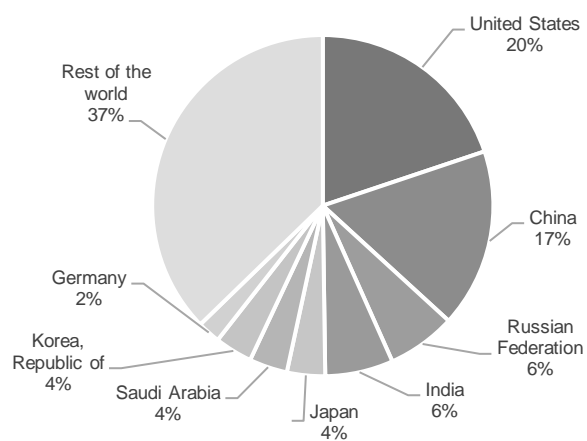


Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
<b>World</b>	<b>2016</b>	<b>3,904,829</b>	<b>51</b>	<b>2,256,401</b>	<b>2,195,610</b>	<b>-7,193</b>	<b>3,972,814</b>	<b>532</b>
	<b>2017</b>	<b>3,885,572</b>	<b>51</b>	<b>2,325,708</b>	<b>2,198,037</b>	<b>-17,665</b>	<b>4,030,908</b>	<b>534</b>
	<b>2018</b>	<b>3,951,682</b>	<b>50</b>	<b>2,351,100</b>	<b>2,250,344</b>	<b>8,730</b>	<b>4,043,709</b>	<b>530</b>
	<b>2019</b>	<b>3,924,240</b>	<b>50</b>	<b>2,317,937</b>	<b>2,225,617</b>	<b>2,257</b>	<b>4,014,303</b>	<b>520</b>
<b>Africa</b>	<b>2016</b>	<b>342,002</b>	<b>46</b>	<b>36,239</b>	<b>279,849</b>	<b>-151</b>	<b>98,543</b>	<b>81</b>
	<b>2017</b>	<b>362,193</b>	<b>43</b>	<b>30,351</b>	<b>296,466</b>	<b>798</b>	<b>95,280</b>	<b>77</b>
	<b>2018</b>	<b>368,561</b>	<b>43</b>	<b>36,308</b>	<b>303,000</b>	<b>884</b>	<b>100,986</b>	<b>79</b>
	<b>2019</b>	<b>376,034</b>	<b>42</b>	<b>33,459</b>	<b>306,071</b>	<b>2,955</b>	<b>100,467</b>	<b>77</b>
Algeria	2016	50,945	22	233	25,227	-82	26,033	642
	2017	49,468	23	222	24,677	287	24,726	597
	2018	48,588	23	204	21,676	-247	27,363	648
	2019	48,394	24	160	22,181	32	26,341	612
Angola	2016	85,497	20	..	82,936	*-225	2,786	97
	2017	80,843	20	..	78,088	*-438	3,192	107
	2018	73,245	22	..	70,606	-204	2,842	92
	2019	68,498	23	..	65,308	*82	3,108	98
Cameroon	2016	4,673	4	1,508	4,348	..	1,833	77
	2017	3,845	5	1,024	3,488	..	1,382	56
	2018	3,486	5	541	2,904	..	1,122	45
	2019	3,606	5	280	3,284	..	602	23
Chad	2016	6,500	33	..	5,800	..	700	48
	2017	5,800	37	..	5,100	..	700	47
	2018	6,500	33	..	5,800	..	700	45
	2019	6,700	32	..	6,000	..	700	44
Congo	2016	11,795	16	..	11,094	-1	702	141
	2017	13,669	14	..	12,856	0	813	159
	2018	16,605	11	..	15,788	-9	826	157
	2019	16,913	11	..	15,904	174	835	155
Côte d'Ivoire	2016	2,188	6	2,601	2,038	..	2,751	115
	2017	2,007	7	2,386	1,870	..	2,523	103
	2018	1,672	8	2,469	1,514	..	2,627	105
	2019	1,810	8	2,928	1,757	..	2,981	116
Dem. Rep. of the Congo	2016	996	24	..	996	..	0	0
	2017	1,198	20	..	1,198	..	0	0
	2018	1,334	18	..	1,334	..	0	0
	2019	1,170	21	..	1,170	..	0	0
Egypt	2016	30,992	14	5,998	11,392	..	25,598	271
	2017	30,417	14	6,283	9,594	..	27,106	281
	2018	30,850	14	6,037	10,559	..	26,328	267
	2019	30,216	15	5,239	8,446	..	27,008	269
Equatorial Guinea	2016	10,186	14	..	10,190	-144	140	115
	2017	8,682	16	..	8,639	-57	100	79
	2018	7,599	18	..	7,472	27	100	76
	2019	7,162	19	..	7,058	*9	95	70
Gabon	2016	11,366	24	..	10,516	..	850	423
	2017	10,499	26	..	9,375	300	824	399
	2018	9,487	29	..	8,662	..	825	389
	2019	10,877	25	..	10,331	..	546	251
Ghana	2016	4,614	20	1,446	4,272	340	1,448	51
	2017	8,380	11	233	8,141	306	166	6
	2018	8,876	10	197	8,860	-194	407	14
	2019	10,206	9	830	10,141	14	882	29

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Libya	2016	18,193	314	..	14,683	..	3,510	541
	2017	42,322	141	..	37,955	..	4,367	664
	2018	53,338	112	..	48,483	..	4,855	727
	2019	59,710	100	..	50,288	..	9,422	1,390
Mauritania	2016	236	13	..	*236	..	0	0
	2017	87	34	..	*87	..	0	0
	2018	0	..	..	0	..	0	0
	2019	..	..	..	..	..	..	..
Morocco	2016	5	50	..	..	..	5	0
	2017	5	54	..	..	..	5	0
	2018	5	52	..	..	..	5	0
	2019	4	58	..	..	..	4	0
Mozambique	2016	49	41	..	49	..	0	0
	2017	..	220	..	..	..	..	..
	2018	..	237	..	..	..	..	..
	2019	..	274	..	..	..	..	..
Niger	2016	822	24	..	..	88	734	35
	2017	911	22	..	..	-20	931	43
	2018	829	24	..	..	10	818	36
	2019	905	22	..	..	150	755	32
Nigeria	2016	88,901	55	..	86,058	-38	2,881	15
	2017	90,529	54	..	86,490	718	3,321	17
	2018	93,117	52	..	90,830	756	1,531	8
	2019	95,543	50	..	94,094	1,079	370	2
Senegal	2016	..	..	1,162	..	-68	1,230	82
	2017	..	..	1,200	..	*-119	1,319	86
	2018	..	..	1,024	..	-26	1,050	66
	2019	..	..	1,024	..	..	1,024	63
South Africa	2016	28	30	20,818	452	..	20,394	363
	2017	32	21	17,103	..	..	17,135	301
	2018	26	22	24,256	..	856	23,426	405
	2019	13	26	21,713	..	1,325	20,401	348
South Sudan	2016	6,869	69	..	6,799	..	70	6
	2017	7,350	64	..	7,279	..	71	6
	2018	7,200	66	..	7,131	..	69	6
	2019	8,600	55	..	8,517	..	83	7
Sudan	2016	4,718	43	1,103	949	..	4,872	122
	2017	4,095	49	744	167	..	4,673	114
	2018	3,818	53	*450	..	..	4,268	102
	2019	*3,867	52	*456	..	..	*4,322	*101
Tunisia	2016	2,429	21	886	1,814	39	1,462	129
	2017	2,054	24	635	1,461	-79	1,307	114
	2018	1,987	26	512	1,380	-57	1,176	102
	2019	1,842	28	125	1,594	86	288	25
Zambia	2016	..	..	484	..	-60	544	33
	2017	..	..	520	..	-100	620	37
	2018	..	..	618	..	-28	647	37
	2019	..	..	705	..	4	700	39
America, North	2016	714,441	43	455,015	238,357	3,477	927,622	1,620
	2017	739,641	42	448,435	266,271	-13,314	935,119	1,619
	2018	831,700	37	434,730	323,488	2,858	940,085	1,615
	2019	888,153	34	382,440	374,785	-6,027	901,834	1,537



Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Barbados	2016	34	7	..	34	0	0	0
	2017	32	8	..	32	0	0	0
	2018	30	8	..	28	2	0	0
	2019	29	9	..	32	-3	0	0
Belize	2016	66	4	..	49	4	13	35
	2017	53	5	..	39	0	14	36
	2018	44	6	..	29	3	12	31
	2019	39	6	..	31	..	8	20
Canada	2016	158,046	160	46,689	143,984	-700	61,451	1,689
	2017	170,757	149	40,562	144,695	226	66,398	1,808
	2018	188,258	135	39,311	157,340	355	69,874	1,885
	2019	189,690	133	41,456	164,946	420	65,780	1,758
Cuba	2016	2,619	1	3,712	..	..	6,331	559
	2017	2,522	1	2,840	..	..	5,362	473
	2018	2,463	1	2,550	..	..	5,013	442
	2019	2,372	1	2,416	..	..	4,787	422
Curaçao	2016	..	..	8,091	..	..	8,091	50,237
	2017	..	..	4,357	..	..	4,357	26,896
	2018	..	..	3,253	..	..	3,253	19,985
	2019	..	..	0	..	..	0	0
Dominican Republic	2016	..	..	1,163	..	-2	1,164	112
	2017	..	..	990	..	44	947	90
	2018	..	..	1,245	..	-23	1,268	119
	2019	..	..	1,250	..	-34	1,283	120
Guatemala	2016	446	25	..	368	22	56	3
	2017	481	23	..	393	0	88	5
	2018	459	24	..	309	..	151	9
	2019	479	23	..	268	..	210	12
Jamaica	2016	..	..	1,243	..	..	1,243	428
	2017	..	..	1,165	..	..	1,165	399
	2018	..	..	1,035	..	..	1,035	353
	2019	..	..	1,309	..	..	1,309	444
Mexico	2016	111,482	12	..	63,247	128	48,107	390
	2017	100,827	14	..	62,607	561	37,659	302
	2018	95,073	15	192	63,626	1,554	30,085	238
	2019	88,386	16	..	59,426	-1,984	30,944	243
Nicaragua	2016	..	..	619	..	*-40	659	105
	2017	..	..	709	..	*8	701	110
	2018	..	..	648	..	*-30	678	105
	2019	..	..	559	..	-3	562	86
Trinidad and Tobago	2016	3,695	25	5,228	1,449	..	7,474	5,426
	2017	3,702	24	4,554	1,408	..	6,847	4,947
	2018	3,277	28	3,233	1,137	..	5,373	3,866
	2019	3,034	29	..	3,008	..	26	18
United States	2016	438,053	13	388,271	29,226	4,065	793,033	2,455
	2017	461,267	12	393,259	57,097	-14,153	811,582	2,497
	2018	542,095	10	383,263	101,019	997	823,343	2,517
	2019	604,126	9	335,450	147,074	-4,423	796,925	2,422
<b>America, South</b>	<b>2016</b>	<b>359,963</b>	<b>80</b>	<b>24,155</b>	<b>193,969</b>	<b>-86</b>	<b>190,236</b>	<b>457</b>
	<b>2017</b>	<b>342,641</b>	<b>84</b>	<b>23,708</b>	<b>189,103</b>	<b>-734</b>	<b>177,980</b>	<b>424</b>
	<b>2018</b>	<b>314,296</b>	<b>92</b>	<b>26,257</b>	<b>174,154</b>	<b>-600</b>	<b>166,998</b>	<b>395</b>
	<b>2019</b>	<b>301,247</b>	<b>96</b>	<b>25,342</b>	<b>159,160</b>	<b>903</b>	<b>166,526</b>	<b>390</b>

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Argentina	2016	26,440	11	820	2,643	-60	24,677	567
	2017	24,766	12	1,117	1,481	78	24,324	554
	2018	25,281	11	396	3,197	31	22,449	506
	2019	26,269	11	0	3,389	-373	23,253	519
Bolivia (Plur. State of)	2016	2,224	7	..	0	-63	2,287	207
	2017	2,110	7	..	0	-40	2,151	192
	2018	1,967	7	..	..	-73	2,040	180
	2019	1,741	8	..	..	-29	1,770	154
Brazil	2016	129,203	14	7,937	43,419	496	93,225	452
	2017	134,534	13	7,415	53,337	-223	88,835	427
	2018	132,713	14	9,530	55,164	152	86,927	415
	2019	142,845	13	8,796	62,866	1,701	87,074	413
Chile	2016	203	82	8,183	..	-49	8,435	463
	2017	169	72	8,468	..	7	8,631	467
	2018	154	53	8,553	..	-52	8,759	468
	2019	167	42	9,305	..	32	9,440	498
Colombia	2016	47,141	7	..	33,223	..	13,918	289
	2017	45,322	7	..	33,419	..	11,902	243
	2018	45,929	7	..	31,704	..	14,225	286
	2019	47,009	7	..	29,855	..	17,153	341
Ecuador	2016	27,610	42	0	19,515	-350	8,445	512
	2017	26,676	44	3	18,351	-558	8,887	529
	2018	26,240	45	..	18,019	-399	8,620	505
	2019	26,938	43	..	19,048	-484	8,374	482
Peru	2016	1,991	31	5,188	114	-14	7,079	229
	2017	2,143	31	6,164	77	63	8,167	260
	2018	2,440	31	5,629	324	-233	7,978	249
	2019	2,647	29	5,242	284	112	7,494	231
Suriname	2016	817	15	41	..	12	846	1,497
	2017	813	15	14	..	..	827	1,450
	2018	820	15	9	..	..	829	1,439
	2019	827	15	..	..	..	827	1,422
Uruguay	2016	..	..	1,986	..	-59	2,045	597
	2017	..	..	527	..	-60	587	171
	2018	..	..	2,139	..	-26	2,165	628
	2019	..	..	1,998	..	-57	2,055	594
Venezuela (Bolivar. Rep.)	2016	124,335	203	..	95,055	..	29,280	981
	2017	106,108	237	..	82,438	..	23,670	805
	2018	78,752	320	..	65,746	..	13,006	450
	2019	52,804	475	..	43,718	..	9,086	319
<b>Asia</b>	<b>2016</b>	<b>1,797,343</b>	<b>59</b>	<b>1,147,340</b>	<b>1,109,340</b>	<b>-8,302</b>	<b>1,843,645</b>	<b>412</b>
	<b>2017</b>	<b>1,762,632</b>	<b>60</b>	<b>1,208,448</b>	<b>1,072,417</b>	<b>-467</b>	<b>1,899,129</b>	<b>420</b>
	<b>2018</b>	<b>1,751,772</b>	<b>61</b>	<b>1,244,526</b>	<b>1,069,052</b>	<b>4,605</b>	<b>1,922,641</b>	<b>422</b>
	<b>2019</b>	<b>1,671,222</b>	<b>64</b>	<b>1,274,132</b>	<b>997,397</b>	<b>3,617</b>	<b>1,944,341</b>	<b>423</b>
Afghanistan	2016	..	..	*110	..	..	*110	*3
	2017	..	..	117	..	..	117	3
	2018	..	..	185	..	..	185	5
	2019	..	..	118	..	..	118	3
Azerbaijan	2016	38,253	23	..	32,479	24	5,750	591
	2017	36,032	25	63	30,488	-23	5,629	572
	2018	35,925	25	..	30,141	-15	5,799	583
	2019	33,597	26	..	27,704	18	5,876	585

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Bahrain	2016	10,102	1	10,476	7,724	..	12,854	9,015
	2017	9,830	1	10,953	7,601	..	13,182	8,823
	2018	9,682	1	10,951	7,693	..	12,940	8,245
	2019	9,684	1	11,119	7,654	..	13,149	8,012
Bangladesh	2016	..	12	1,308	..	..	1,308	8
	2017	..	10	1,687	..	..	1,687	11
	2018	..	10	1,209	..	..	1,209	7
	2019	..	10	1,166	..	..	1,166	7
Brunei Darussalam	2016	5,431	25	..	5,209	-18	240	572
	2017	4,995	27	..	4,871	-74	198	466
	2018	4,943	27	..	4,571	151	222	517
	2019	5,442	25	1,453	5,312	-65	1,648	3,804
China	2016	199,685	13	381,007	2,941	4,428	573,323	405
	2017	191,506	13	419,462	4,861	6,418	599,690	422
	2018	189,324	13	461,886	2,627	10,091	638,492	447
	2019	191,014	13	505,676	810	15,805	680,075	474
Georgia	2016	39	130	43	18	0	64	16
	2017	32	156	60	7	-5	89	22
	2018	30	166	2	9	1	22	5
	2019	35	143	9	..	7	38	9
India	2016	36,801	19	218,618	..	0	255,419	193
	2017	36,468	19	225,282	..	..	261,750	196
	2018	34,200	20	226,500	..	..	260,700	193
	2019	*32,169	21	*226,955	..	..	*259,124	*190
Indonesia	2016	40,063	11	17,452	15,131	-2,725	45,109	172
	2017	41,901	11	15,889	12,035	34	45,721	173
	2018	40,691	11	15,404	8,929	1,769	45,397	170
	2019	39,026	12	10,122	3,526	-3,515	49,137	182
Iran (Islamic Rep. of)	2016	187,209	100	..	104,500	0	82,709	1,040
	2017	191,392	97	..	106,951	-20	84,461	1,047
	2018	175,835	104	..	91,446	..	84,389	1,032
	2019	117,329	146	..	32,330	..	84,999	1,025
Iraq	2016	220,339	87	..	187,360	3,140	29,839	815
	2017	224,404	85	..	186,774	385	37,245	992
	2018	224,404	85	..	189,721	634	34,049	886
	2019	231,478	83	..	194,941	-371	36,908	939
Israel	2016	97	21	10,332	..	-385	10,814	1,334
	2017	64	31	11,698	..	649	11,113	1,348
	2018	74	27	11,533	..	-448	12,055	1,438
	2019	84	24	12,313	..	80	12,316	1,446
Japan	2016	187	9	155,851	..	-1,546	157,584	1,233
	2017	180	10	155,715	..	-896	156,791	1,230
	2018	166	10	149,208	..	442	148,932	1,171
	2019	211	10	145,382	..	203	145,390	1,146
Jordan	2016	0	563	2,978	..	23	2,955	309
	2017	0	862	2,795	..	16	2,779	284
	2018	1	250	2,366	..	11	2,356	236
	2019	1	250	2,366	..	*-36	2,403	238
Kazakhstan	2016	65,570	50	23	49,774	197	15,622	876
	2017	72,925	46	42	56,684	*57	16,226	897
	2018	77,496	44	25	58,435	442	18,645	1,018
	2019	78,643	43	36	59,649	-462	19,492	1,051

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Korea, Dem.Ppl's.Rep.	2016	..	..	532	..	..	532	21
	2017	..	..	532	..	..	532	21
	2018	..	..	532	..	..	532	21
	2019	..	..	532	..	..	532	21
Korea, Republic of	2016	15	..	145,537	..	947	144,605	2,836
	2017	30	..	150,613	..	-29	150,672	2,949
	2018	26	..	150,281	..	-2,144	152,451	2,979
	2019	21	..	144,555	..	1,538	143,038	2,792
Kuwait	2016	149,758	89	..	107,535	..	42,223	10,671
	2017	137,090	96	..	102,455	..	34,635	8,539
	2018	138,731	95	..	103,615	..	35,116	8,488
	2019	135,742	97	..	100,500	..	35,242	8,377
Kyrgyzstan	2016	145	34	250	7	1	387	64
	2017	173	29	297	20	5	445	72
	2018	200	25	410	70	-9	549	87
	2019	233	21	134	51	-6	322	50
Malaysia	2016	32,113	14	10,488	16,045	-68	26,624	868
	2017	31,071	14	9,793	14,453	287	26,124	840
	2018	30,917	14	8,927	14,506	435	24,903	790
	2019	28,616	15	9,508	14,392	*200	23,532	737
Mongolia	2016	976	36	..	949	28	0	0
	2017	902	39	..	889	13	0	0
	2018	756	46	..	733	24	0	0
	2019	814	43	..	775	*39	0	0
Myanmar	2016	653	5	..	149	32	472	9
	2017	589	5	..	241	-1	349	7
	2018	766	4	..	242	..	524	10
	2019	432	7	..	201	..	231	4
Oman	2016	49,409	14	..	43,266	..	6,143	1,371
	2017	47,685	15	..	39,596	..	8,089	1,734
	2018	48,784	15	..	39,522	..	9,262	1,918
	2019	48,415	15	..	42,391	..	6,025	1,211
Other Asia	2016	8	4	44,837	..	-141	44,986	1,905
	2017	5	6	44,517	..	247	44,274	1,870
	2018	4	7	45,959	..	-481	46,444	1,957
	2019	3	9	46,404	..	-84	46,492	1,956
Pakistan	2016	4,246	11	8,368	208	0	12,406	61
	2017	4,329	10	10,404	412	..	14,321	69
	2018	4,368	10	9,029	572	..	12,825	60
	2019	4,359	10	6,677	474	..	10,562	49
Philippines	2016	275	22	10,743	247	221	10,551	102
	2017	217	25	10,590	193	-239	10,853	103
	2018	173	27	11,702	146	10	11,719	110
	2019	106	31	8,288	136	83	8,175	76
Qatar	2016	31,798	36	..	28,051	..	3,747	1,412
	2017	29,199	38	..	25,647	..	3,552	1,304
	2018	29,233	37	..	25,676	..	3,557	1,279
	2019	31,638	37	..	27,789	..	3,849	1,359
Saudi Arabia	2016	523,010	64	..	373,168	-7,220	157,062	4,841
	2017	508,235	66	..	347,464	-3,772	164,543	4,971
	2018	514,362	65	..	367,570	*-5,412	152,204	4,516
	2019	489,066	68	..	350,943	*-6,852	144,975	4,231

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Singapore	2016	..	..	51,118	1,016	-142	50,244	8,887
	2017	..	..	56,053	127	432	55,494	9,722
	2018	..	..	54,625	109	-196	54,712	9,503
	2019	..	..	51,866	..	142	51,725	8,911
Sri Lanka	2016	..	..	1,685	..	-61	1,746	83
	2017	..	..	1,499	..	-147	1,646	78
	2018	..	..	1,763	..	0	1,763	83
	2019	..	..	1,843	..	..	1,843	86
Syrian Arab Republic	2016	961	328	6,118	..	..	7,079	405
	2017	961	328	6,900	..	..	7,861	460
	2018	904	347	6,456	..	..	7,360	434
	2019	1,413	227	4,945	..	..	6,359	373
Tajikistan	2016	25	80	..	..	..	25	3
	2017	23	85	..	..	..	23	3
	2018	24	85	45	..	..	69	8
	2019	12	164	*21	..	..	*33	*4
Thailand	2016	12,860	3	43,862	1,546	-6,288	61,464	891
	2017	11,974	3	46,278	1,670	-6,278	62,860	908
	2018	11,399	3	48,925	1,531	-4,114	62,908	906
	2019	11,245	3	43,609	1,278	-3,409	56,985	818
Timor-Leste	2016	2,455	24	..	*2,455	..	0	0
	2017	2,010	29	..	*2,010	..	0	0
	2018	1,641	36	..	*1,641	..	0	0
	2019	1,388	43	..	*1,388	..	0	0
Turkey	2016	2,573	18	24,958	..	165	27,366	343
	2017	2,553	18	25,767	..	233	28,087	346
	2018	2,851	16	20,972	..	-81	23,904	290
	2019	2,986	15	31,075	..	301	33,760	405
Turkmenistan	2016	11,080	7	..	2,480	..	8,600	1,519
	2017	10,300	7	..	1,700	..	8,600	1,494
	2018	9,650	8	..	1,050	..	8,600	1,470
	2019	9,400	8	..	800	..	8,600	1,447
United Arab Emirates	2016	154,189	68	..	120,236	..	33,953	3,627
	2017	149,937	70	..	118,463	417	31,057	3,274
	2018	149,985	70	..	114,539	1,464	33,982	3,528
	2019	152,482	71	..	120,379	..	32,103	3,286
Uzbekistan	2016	868	31	212	..	..	1,080	34
	2017	814	29	263	..	..	1,077	34
	2018	746	28	456	..	..	1,201	37
	2019	701	27	183	..	..	885	27
Viet Nam	2016	15,200	39	435	6,848	*1,087	7,700	82
	2017	13,557	43	1,181	6,806	1,822	6,110	65
	2018	11,989	48	5,177	3,961	2,032	11,173	117
	2019	11,043	52	7,776	3,976	..	14,843	154
Yemen	2016	950	413	..	0	..	950	35
	2017	1,248	319	..	..	..	1,248	45
	2018	1,491	272	..	..	..	1,491	52
	2019	2,393	170	..	..	..	2,393	82
<b>Europe</b>	<b>2016</b>	<b>673,315</b>	<b>22</b>	<b>571,675</b>	<b>360,756</b>	<b>-2,080</b>	<b>886,314</b>	<b>1,187</b>
	<b>2017</b>	<b>663,035</b>	<b>22</b>	<b>592,181</b>	<b>361,705</b>	<b>-4,063</b>	<b>897,573</b>	<b>1,201</b>
	<b>2018</b>	<b>670,914</b>	<b>22</b>	<b>585,335</b>	<b>368,815</b>	<b>1,095</b>	<b>886,338</b>	<b>1,184</b>
	<b>2019</b>	<b>671,275</b>	<b>22</b>	<b>578,863</b>	<b>375,016</b>	<b>784</b>	<b>874,337</b>	<b>1,167</b>

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Albania	2016	1,056	25	..	888	-16	184	64
	2017	959	27	..	488	-42	513	178
	2018	911	29	..	583	30	298	103
	2019	1,005	26	..	631	39	335	116
Austria	2016	786	9	7,332	..	-66	8,184	936
	2017	698	10	7,219	..	-148	8,064	914
	2018	670	10	8,333	..	34	8,970	1,009
	2019	634	11	8,592	..	102	9,124	1,019
Belarus	2016	1,645	16	18,142	1,617	-448	18,618	1,971
	2017	1,650	16	18,130	1,621	-31	18,190	1,925
	2018	1,670	15	18,248	1,640	7	18,271	1,933
	2019	1,690	15	17,998	1,649	163	17,876	1,891
Belgium	2016	..	..	31,870	..	-99	31,969	2,816
	2017	..	..	34,117	..	30	34,087	2,985
	2018	..	..	33,017	..	-7	33,024	2,876
	2019	..	..	34,513	..	-3	34,517	2,991
Bosnia and Herzegovina	2016	..	..	911	..	75	836	247
	2017	..	..	856	..	-22	878	262
	2018	..	..	683	..	-14	697	210
	2019	..	..	6	..	-77	83	25
Bulgaria	2016	24	83	6,195	..	-40	6,259	875
	2017	24	84	6,859	..	99	6,784	955
	2018	22	89	5,858	..	-6	5,886	835
	2019	..	..	6,985	..	175	6,810	973
Croatia	2016	684	9	2,513	..	-27	3,224	766
	2017	689	9	2,818	..	24	3,483	833
	2018	688	9	2,966	..	64	3,590	864
	2019	664	10	2,006	122	-46	2,595	628
Czechia	2016	117	17	5,325	28	-8	5,422	511
	2017	108	19	7,814	24	34	7,864	739
	2018	110	18	7,439	22	4	7,523	705
	2019	81	25	7,738	..	-28	7,847	734
Denmark	2016	6,924	11	3,835	3,877	-27	6,909	1,210
	2017	6,737	11	4,823	4,098	-32	7,495	1,307
	2018	5,666	13	4,714	2,809	25	7,546	1,312
	2019	5,017	15	5,037	2,301	151	7,602	1,317
Finland	2016	..	..	11,249	..	59	11,190	2,035
	2017	..	..	11,014	..	-136	11,150	2,023
	2018	..	..	11,511	..	12	11,499	2,082
	2019	..	..	11,901	..	-126	12,027	2,174
France	2016	815	13	54,894	0	-863	56,572	846
	2017	758	15	57,053	67	400	57,344	855
	2018	774	14	52,727	0	-448	53,948	802
	2019	725	15	48,335	67	-119	49,112	729
Germany	2016	2,357	13	91,244	101	-761	94,261	1,147
	2017	2,217	14	90,738	..	-249	93,204	1,128
	2018	2,070	15	85,209	..	-503	87,782	1,056
	2019	1,927	16	85,991	106	421	87,391	1,046
Greece	2016	176	6	23,462	156	295	23,187	2,184
	2017	142	7	23,667	163	-385	24,030	2,274
	2018	206	5	24,330	202	7	24,327	2,312
	2019	168	6	22,826	242	-275	23,027	2,199

Table 13

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Hungary	2016	712	4	6,012	75	12	6,637	681
	2017	714	4	5,984	161	12	6,525	671
	2018	808	4	6,677	394	51	7,040	725
	2019	930	4	6,108	191	42	6,805	703
Ireland	2016	..	..	3,197	..	3	3,194	680
	2017	..	..	2,918	..	-265	3,183	670
	2018	..	..	2,986	..	-38	3,024	628
	2019	..	..	2,553	..	22	2,531	518
Italy	2016	3,746	22	60,878	624	-586	64,586	1,064
	2017	4,138	20	66,348	697	-319	70,108	1,155
	2018	4,684	17	62,053	502	-757	66,992	1,104
	2019	4,279	19	63,140	..	146	67,272	1,110
Lithuania	2016	64	16	9,321	52	9	9,324	3,227
	2017	56	18	9,817	42	10	9,821	3,451
	2018	46	22	9,653	45	-35	9,689	3,459
	2019	40	25	9,630	38	116	9,516	3,448
Netherlands	2016	957	24	54,318	326	557	54,392	3,203
	2017	952	25	52,851	440	-162	53,525	3,145
	2018	901	27	54,305	434	-169	54,942	3,221
	2019	747	34	57,636	393	1,061	56,929	3,330
Norway	2016	79,836	11	493	69,254	731	10,344	1,970
	2017	78,413	11	1,797	67,076	-773	13,907	2,626
	2018	73,721	12	3,283	61,535	393	15,076	2,824
	2019	70,008	13	3,187	60,860	-616	12,951	2,408
Poland	2016	1,001	15	24,573	224	-426	25,776	679
	2017	996	15	24,648	220	280	25,144	663
	2018	1,010	15	26,847	296	554	27,007	712
	2019	973	15	26,622	243	76	27,276	720
Portugal	2016	..	..	13,731	..	-177	13,908	1,347
	2017	..	..	14,191	..	54	14,137	1,374
	2018	..	..	12,651	..	111	12,539	1,223
	2019	..	..	11,165	..	48	11,118	1,087
Republic of Moldova	2016	6	..	0	..	-1	7	2
	2017	5	..	0	..	1	4	1
	2018	5	..	0	..	0	5	1
	2019	5	..	..	..	..	5	1
Romania	2016	3,686	21	7,468	14	-165	11,305	571
	2017	3,538	22	7,754	37	-188	11,444	582
	2018	3,486	22	8,265	0	87	11,663	598
	2019	3,440	22	8,665	5	122	11,977	618
Russian Federation	2016	521,715	26	0	252,844	485	268,386	1,847
	2017	514,536	26	0	252,169	-1,605	263,972	1,814
	2018	523,321	25	0	259,830	2,327	261,165	1,792
	2019	527,586	25	..	267,337	-1,569	261,818	1,795
Serbia	2016	930	7	2,190	..	14	3,106	439
	2017	889	8	2,447	..	3	3,333	473
	2018	877	8	2,686	..	5	3,558	508
	2019	850	8	2,346	..	58	3,138	450
Slovakia	2016	8	100	5,792	9	53	5,738	1,054
	2017	6	125	5,587	56	-20	5,557	1,020
	2018	5	143	5,436	5	8	5,428	995
	2019	4	167	5,143	4	33	5,110	936

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Spain	2016	141	135	64,171	..	-676	64,988	1,394
	2017	120	158	65,958	..	40	66,038	1,416
	2018	87	218	67,586	..	-220	67,893	1,454
	2019	40	475	66,303	..	695	65,648	1,405
Sweden	2016	..	..	19,689	..	-8	19,697	2,003
	2017	..	..	19,061	..	-384	19,445	1,963
	2018	..	..	19,969	..	-140	20,109	2,017
	2019	..	..	16,351	..	-4	16,355	1,630
Switzerland	2016	..	..	2,930	16	-16	2,930	350
	2017	..	..	2,847	..	-3	2,850	337
	2018	..	..	3,018	..	4	3,014	354
	2019	..	..	2,732	..	9	2,723	317
Ukraine	2016	1,623	24	502	..	5	2,120	47
	2017	1,505	25	905	83	41	2,286	51
	2018	1,624	24	723	..	-6	2,353	53
	2019	1,719	22	790	..	-16	2,525	57
United Kingdom	2016	44,306	8	39,438	30,651	32	53,061	800
	2017	43,185	8	43,960	34,264	-326	53,207	797
	2018	47,550	7	44,163	40,519	-284	51,479	767
	2019	48,743	7	44,564	40,827	184	52,295	774
<b>Oceania</b>	<b>2016</b>	<b>17,765</b>	<b>25</b>	<b>21,977</b>	<b>13,338</b>	<b>-51</b>	<b>26,455</b>	<b>654</b>
	<b>2017</b>	<b>15,430</b>	<b>28</b>	<b>22,586</b>	<b>12,075</b>	<b>115</b>	<b>25,826</b>	<b>630</b>
	<b>2018</b>	<b>14,440</b>	<b>30</b>	<b>23,944</b>	<b>11,835</b>	<b>-112</b>	<b>26,661</b>	<b>641</b>
	<b>2019</b>	<b>16,309</b>	<b>27</b>	<b>23,700</b>	<b>13,187</b>	<b>24</b>	<b>26,797</b>	<b>636</b>
Australia	2016	15,024	27	15,323	10,669	-141	19,819	817
	2017	12,993	30	15,959	9,698	-67	19,321	786
	2018	12,392	32	17,674	9,792	-119	20,393	819
	2019	14,175	28	17,184	11,075	143	20,141	799
New Zealand	2016	1,575	10	5,286	1,503	122	5,236	1,124
	2017	1,399	11	5,215	1,339	101	5,174	1,100
	2018	1,075	14	4,948	1,070	-42	4,995	1,053
	2019	1,112	13	5,127	1,091	-170	5,319	1,112
Papua New Guinea	2016	1,166	21	1,368	1,166	-32	1,400	169
	2017	1,038	23	1,412	1,038	81	1,331	158
	2018	973	25	1,322	973	49	1,273	148
	2019	*1,022	23	*1,388	*1,022	*52	*1,337	*152





## Production of additives and other hydrocarbons

Thousand metric tons

### Table Notes

**Additives** production refers to any quantities of additives (as per the definition in page x) which come from non-energy sources, such as Tetraethyllead (TEL) or detergents.

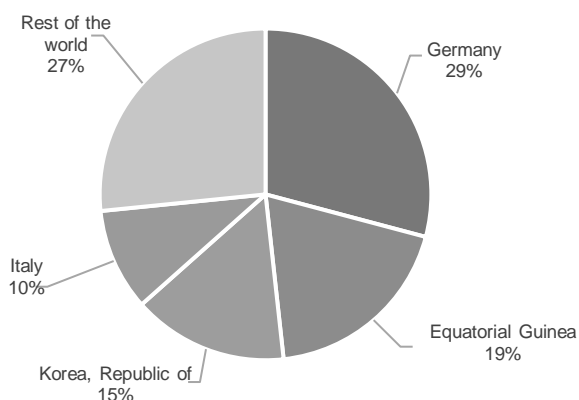
**Additives** from other sources refers to quantities of additives (as per the definition in page x) already accounted for in energy statistics, such as oxygenates from a biomass or hydrocarbon origin.

**Other hydrocarbons** production refers to quantities of other hydrocarbons which are oils obtained by non-conventional production techniques and are primary for the purposes of energy statistics.

**Other hydrocarbons** from other sources refers to the oils extracted from extra heavy oils, oil sands, coal and oil shale whose production has been already accounted for in energy statistics, together with the output of GTL plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 41: Major additives producing countries, 2019**



**Figure 42: Major other hydrocarbons producing countries, 2019**

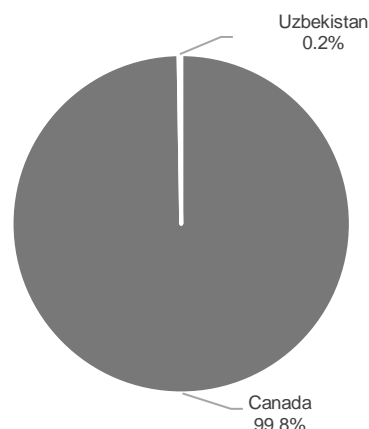


Table 14

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
<b>World</b>	<b>2016</b>	<b>4,415</b>	<b>3,059</b>	<b>46,994</b>	<b>29,899</b>
	<b>2017</b>	<b>4,729</b>	<b>2,787</b>	<b>57,114</b>	<b>29,800</b>
	<b>2018</b>	<b>5,073</b>	<b>2,884</b>	<b>55,944</b>	<b>30,539</b>
	<b>2019</b>	<b>4,878</b>	<b>3,329</b>	<b>58,598</b>	<b>35,375</b>
<b>Africa</b>	<b>2016</b>	<b>1,069</b>	..	..	<b>4,455</b>
	<b>2017</b>	<b>1,083</b>	..	..	<b>4,680</b>
	<b>2018</b>	<b>1,024</b>	..	..	<b>5,035</b>
	<b>2019</b>	<b>933</b>	..	..	<b>5,041</b>
Equatorial Guinea	2016	1,069	..	..	..
	2017	1,083	..	..	..
	2018	1,024	..	..	..
	2019	933	..	..	..
Nigeria	2016	..	..	..	201
	2017	..	..	..	200
	2018	..	..	..	200
	2019	..	..	..	200
South Africa	2016	..	..	..	4,254
	2017	..	..	..	4,480
	2018	..	..	..	4,835
	2019	..	..	..	4,840
<b>America, North</b>	<b>2016</b>	<b>274</b>	<b>2,775</b>	<b>46,863</b>	<b>7,230</b>
	<b>2017</b>	<b>197</b>	<b>2,554</b>	<b>56,975</b>	<b>7,225</b>
	<b>2018</b>	<b>240</b>	<b>2,673</b>	<b>55,799</b>	<b>7,636</b>
	<b>2019</b>	<b>184</b>	<b>3,139</b>	<b>58,453</b>	<b>7,641</b>
Canada	2016	..	..	46,863	3,129
	2017	..	4	56,975	3,037
	2018	..	86	55,799	3,452
	2019	..	1	58,453	3,627
Mexico	2016	274	..	..	37
	2017	197	..	..	33
	2018	240	..	..	36
	2019	184	..	..	31
United States	2016	..	2,775	..	4,064
	2017	..	2,550	..	4,155
	2018	..	2,587	..	4,148
	2019	..	3,138	..	3,983
<b>America, South</b>	<b>2016</b>	..	..	..	<b>451</b>
	<b>2017</b>	..	..	..	<b>518</b>
	<b>2018</b>	..	..	..	<b>283</b>
	<b>2019</b>	..	..	..	<b>475</b>
Brazil	2016	..	..	..	451
	2017	..	..	..	472
	2018	..	..	..	283
	2019	..	..	..	475
Chile	2016	..	..	..	..
	2017	..	..	..	46
	2018	..	..	..	..
	2019	..	..	..	..
<b>Asia</b>	<b>2016</b>	<b>674</b>	..	<b>131</b>	<b>10,288</b>
	<b>2017</b>	<b>879</b>	..	<b>139</b>	<b>12,479</b>
	<b>2018</b>	<b>960</b>	..	<b>145</b>	<b>12,142</b>
	<b>2019</b>	<b>1,133</b>	..	<b>145</b>	<b>14,626</b>

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
China	2016	..	..	..	3,978
	2017	..	..	..	7,044
	2018	..	..	..	5,815
	2019	..	..	..	7,481
Israel	2016	..	..	..	99
	2017	..	..	..	114
	2018	..	..	..	98
	2019	..	..	..	124
Korea, Republic of	2016	674	..	..	..
	2017	688	..	..	..
	2018	748	..	..	..
	2019	741	..	..	..
Malaysia	2016	..	..	..	569
	2017	..	..	..	509
	2018	..	..	..	*531
	2019	..	..	..	549
Other Asia	2016	..	..	..	..
	2017	191	..	..	..
	2018	212	..	..	..
	2019	392	..	..	..
Qatar	2016	..	..	..	5,180
	2017	..	..	..	4,319
	2018	..	..	..	5,180
	2019	..	..	..	5,180
Turkey	2016	..	..	..	462
	2017	..	..	..	492
	2018	..	..	..	517
	2019	..	..	..	927
Turkmenistan	2016	..	..	..	..
	2017	..	..	..	..
	2018	..	..	..	..
	2019	..	..	..	365
Uzbekistan	2016	..	..	131	..
	2017	..	..	139	..
	2018	..	..	145	..
	2019	..	..	145	..
<b>Europe</b>	<b>2016</b>	<b>2,398</b>	<b>284</b>	<b>0</b>	<b>7,343</b>
	<b>2017</b>	<b>2,570</b>	<b>233</b>	<b>0</b>	<b>4,897</b>
	<b>2018</b>	<b>2,849</b>	<b>210</b>	<b>..</b>	<b>5,442</b>
	<b>2019</b>	<b>2,628</b>	<b>190</b>	<b>..</b>	<b>7,592</b>
Belgium	2016	..	..	..	..
	2017	..	..	..	..
	2018	..	..	..	34
	2019	..	..	..	53
Bulgaria	2016	..	..	..	169
	2017	..	..	..	188
	2018	..	9	..	152
	2019	..	4	..	183
Croatia	2016	..	..	..	71
	2017	..	..	..	67
	2018	..	..	..	75
	2019	..	..	..	54

Table 14

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
Czechia	2016	70	5	..	..
	2017	105	18	..	..
	2018	89	23	..	..
	2019	82	31	..	..
Estonia	2016	..	..	..	724
	2017	..	..	..	1,016
	2018	..	..	..	1,111
	2019	..	..	..	1,159
Finland	2016	..	..	..	229
	2017	..	..	..	208
	2018	..	..	..	183
	2019	..	..	..	240
France	2016	177	..	..	..
	2017	206	..	..	..
	2018	139	..	..	..
	2019	240	..	..	..
Germany	2016	1,344	..	..	..
	2017	1,444	..	..	..
	2018	1,570	..	..	..
	2019	1,421	..	..	..
Hungary	2016	14	0	0	33
	2017	43	..	..	33
	2018	53	..	..	40
	2019	46	..	..	39
Ireland	2016	..	..	..	48
	2017	..	..	..	40
	2018	..	..	..	36
	2019	..	..	..	39
Italy	2016	320	..	..	..
	2017	360	..	..	..
	2018	460	..	..	..
	2019	486	..	..	..
Netherlands	2016	321	..	..	..
	2017	278	..	..	..
	2018	375	..	..	..
	2019	233	..	..	..
Norway	2016	85	..	..	..
	2017	68	..	..	..
	2018	70	..	..	..
	2019	36	..	..	..
Poland	2016	11	..	..	589
	2017	1	..	..	584
	2018	7	..	..	636
	2019	22	..	..	592
Portugal	2016	..	7	..	64
	2017	..	..	..	71
	2018	..	..	..	65
	2019	..	..	..	66
Romania	2016	22	..	..	89
	2017	22	..	..	74
	2018	31	..	..	66
	2019	35	..	..	77

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
Russian Federation	2016	..	..	..	*5,160
	2017	..	..	..	2,448
	2018	..	..	..	2,886
	2019	..	..	..	*4,749
Serbia	2016	12	..	..	26
	2017	13	..	..	23
	2018	16	..	..	28
	2019	12	..	..	28
Slovakia	2016	..	215	..	141
	2017	..	215	..	146
	2018	..	178	..	131
	2019	..	155	..	129
Sweden	2016	..	..	..	..
	2017	..	..	..	..
	2018	..	..	..	..
	2019	..	..	..	184
Ukraine	2016	22	57	..	..
	2017	30	..	..	..
	2018	39	..	..	..
	2019	15	..	..	..
<b>Oceania</b>	<b>2016</b>	..	..	..	<b>132</b>
	<b>2017</b>	..	..	..	<b>0</b>
	<b>2018</b>	..	..	..	<b>0</b>
	<b>2019</b>	..	..	..	<b>0</b>
Australia	2016	..	..	..	132
	2017	..	..	..	0
	2018	..	..	..	0
	2019	..	..	..	0

Table 15

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2018**

Importers	Exporters							
	World	Angola	Brazil	Canada	Iraq	Kazakhstan	Kuwait	Libya
Australia	17,674	39	..	..	..	..	..	624
Bahrain	10,951	..	..	..	..	..	..	..
Belarus	18,248	..	..	..	..	..	..	..
Belgium	33,017	107	..	167	1,296	..	4	80
Brazil	9,530	..	..	..	771	..	..	178
Canada	39,311	..	..	..	..	..	..	125
Chile	8,553	..	4,375	90	..	..	..	..
China	461,886	*46,756	31,622	477	45,044	2,287	23,212	8,570
Finland	11,511	..	..	..	..	..	..	..
France	52,727	1,124	69	95	1,189	8,142	256	4,644
Germany	85,209	85	..	237	3,031	6,821	353	7,205
Greece	24,330	..	..	..	10,904	3,071	..	1,762
India	226,500	6,473	3,124	133	47,838	804	11,381	273
Indonesia	15,404	1,247	..	..	..	..	..	328
Italy	62,053	956	..	775	9,078	2,887	1,041	6,328
Japan	149,208	331	..	..	2,219	1,293	11,514	..
Korea, Republic of	150,281	..	..	162	18,742	7,522	21,724	533
Netherlands	54,305	..	222	51	6,423	..	3,545	941
Philippines	11,702	..	..	..	..	364	*3,450	1,039
Poland	26,847	..	..	..	427	695	..	..
Portugal	12,651	2,069	694	183	573	1,124	168	..
Singapore	54,625	..	..	..	1,305	..	6,956	..
South Africa	24,256	2,352	..	..	..	..	..	..
Spain	67,586	2,693	4,631	1,137	4,678	4,476	..	7,112
Sweden	19,969	..	..	..	272	..	..	892
Thailand	48,925	1,834	..	..	108	..	561	791
Turkey	20,972	..	..	..	6,612	1,214	1,405	233
United Kingdom	44,163	80	..	931	..	..	..	1,118
United States	383,263	4,459	6,296	*152,901	25,561	1,095	3,843	2,732

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2018**

Exporters									
Mexico	Nigeria	Norway	Oman	Russian Federation	Saudi Arabia	United Arab Emirates	United Kingdom	United States	Venezuela (Bolivar. Rep.)
..	1,378	..	..	213	..	3,049	..	32	..
..	..	..	..	..	10,861	..	..	..	..
..	..	..	..	..	..	..	..	..	..
295	3,931	2,283	..	12,856	5,696	..	3,689	1,376	434
..	2,198	..	..	..	3,206	..	..	1,218	..
174	679	1,057	..	220	5,804	..	519	27,896	..
..	..	..	..	..	..	..	276	419	..
642	465	1,204	*32,833	..	56,734	12,199	6,795	11,388	16,635
..	..	1,006	..	10,273	..	..	..	..	..
..	5,806	3,314	..	7,542	7,950	..	774	1,602	..
191	5,468	10,044	..	30,969	1,425	..	6,685	3,886	666
..	..	..	..	2,794	1,797	..	261	246	..
9,315	16,827	..	3,423	..	39,489	16,052	100	7,449	17,453
..	4,509	89	..	..	4,825	..	..	..	..
..	2,274	1,219	..	5,679	7,236	..	168	1,548	138
1,257	..	..	2,808	6,657	57,880	38,385	..	3,571	..
4,339	1,217	692	200	5,337	42,991	9,773	4,254	8,269	..
819	3,202	5,988	..	21,787	1,327	..	6,136	313	..
..	51	..	..	169	*3,772	2,842	..	..	..
..	399	827	..	20,742	2,115	120	661	687	..
142	..	170	..	2,472	1,229	..	..	155	..
..	127	..	130	1,743	10,684	10,650	..	2,106	..
..	6,745	..	..	..	8,780	794	..	279	..
9,381	10,264	1,559	..	1,018	7,492	..	650	966	629
..	3,812	5,474	..	6,548	99	..	357	45	875
..	809	127	127	2,882	..	17,433	..	1,886	..
..	490	..	..	1,898	1,757	..	..	..	..
..	5,707	17,134	..	2,256	1,136	..	..	7,584	102
32,807	8,656	2,636	..	3,609	42,919	..	2,807	..	24,937



Table 15

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2019**

Importers	Exporters							
	World	Angola	Brazil	Canada	Iraq	Kazakhstan	Kuwait	Libya
Australia	17,184	..	..	..	..	..	..	914
Bahrain	11,119	..	..	..	..	..	..	..
Belarus	17,998	..	..	..	..	..	..	..
Belgium	34,513	..	93	613	2,134	1,312	329	7
Brazil	8,796	..	..	..	553	..	..	187
Canada	41,456	..	..	..	..	..	..	138
Chile	9,305	384	3,352	..	..	..	..	..
China	505,676	47,369	40,157	825	51,799	2,743	22,688	9,404
Finland	11,901	..	..	..	..	..	..	..
France	48,335	900	400	..	2,741	6,761	145	2,554
Germany	85,991	..	..	114	2,696	6,324	607	8,332
Greece	22,826	..	..	..	11,284	3,410	..	1,228
India	226,955	5,779	2,206	..	49,203	2,894	10,626	133
Indonesia	10,122	130	..	..	..	..	..	..
Italy	63,140	1,243	..	702	12,600	2,887	..	7,785
Japan	145,382	122	..	40	1,699	1,293	13,196	44
Korea, Republic of	144,555	..	..	187	15,939	7,522	20,242	210
Netherlands	57,636	123	1,251	1,183	4,660	..	4,154	318
Philippines	8,288	..	281	..	..	398	2,225	..
Poland	26,622	511	..	..	..	715	..	..
Portugal	11,165	2,405	1,072	..	548	352	..	..
Singapore	51,866	..	..	..	2,730	..	2,733	718
South Africa	21,713	1,153	..	..	..	..	..	..
Spain	66,303	2,144	2,361	669	5,264	3,912	..	8,505
Sweden	16,351	..	..	..	..	..	..	203
Thailand	43,609	1,094	..	..	..	..	798	902
Turkey	31,075	..	..	..	9,526	3,179	19	1,106
United Kingdom	44,564	..	..	628	..	..	..	793
United States	335,450	1,630	5,982	157,688	16,349	1,625	2,207	2,969

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2019**

Exporters									
Mexico	Nigeria	Norway	Oman	Russian Federation	Saudi Arabia	United Arab Emirates	United Kingdom	United States	Venezuela (Bolivar. Rep.)
..	665	..	..	155	..	2,897	..	442	..
..	..	..	..	..	10,644	..	..	..	..
..	..	..	..	..	..	..	..	..	..
25	3,742	1,927	..	11,178	5,313	..	2,734	3,285	639
..	1,339	86	..	..	3,332	..	..	2,374	..
..	400	644	..	881	5,703	..	527	32,085	..
..	..	..	..	..	..	..	..	1,623	..
409	2,437	3,327	33,872	..	83,322	15,294	10,033	6,756	11,408
..	..	777	..	10,958	..	..	..	..	..
..	5,928	3,153	..	6,171	7,274	..	570	3,750	..
57	5,241	9,702	..	27,091	1,595	..	10,217	5,325	751
..	..	..	..	2,174	1,630	85	78	563	50
9,084	18,489	..	1,897	..	42,594	*12,596	..	12,563	15,894
..	3,724	38	..	..	4,863	184	..	..	..
89	3,413	914	..	9,096	4,974	..	665	1,414	437
342	..	..	2,510	7,052	50,419	48,328	..	2,309	..
6,228	526	99	49	4,171	39,777	12,050	411	18,710	..
423	5,219	6,076	..	13,809	2,656	..	8,359	5,283	..
..	50	..	153	236	2,811	*1,835	..	38	..
..	1,382	537	..	18,199	3,848	..	662	723	..
..	516	274	..	1,208	1,244	..	159	..	..
..	584	90	..	1,428	6,096	13,222	81	3,827	..
..	7,174	111	..	..	6,122	2,011	..	175	..
9,431	11,198	2,213	..	1,591	8,246	..	857	1,909	2,297
..	1,710	6,655	..	4,759	..	..	439	342	1,021
..	724	..	67	2,270	..	11,867	..	5,396	..
..	1,829	..	..	10,449	1,916	..	..	..	..
..	2,777	17,458	..	3,800	1,024	..	..	11,405	83
29,563	9,197	2,329	..	6,618	24,654	..	3,152	..	3,973

**Table 16**

**Refinery distillation capacity, throughput and output**

Thousand metric tons

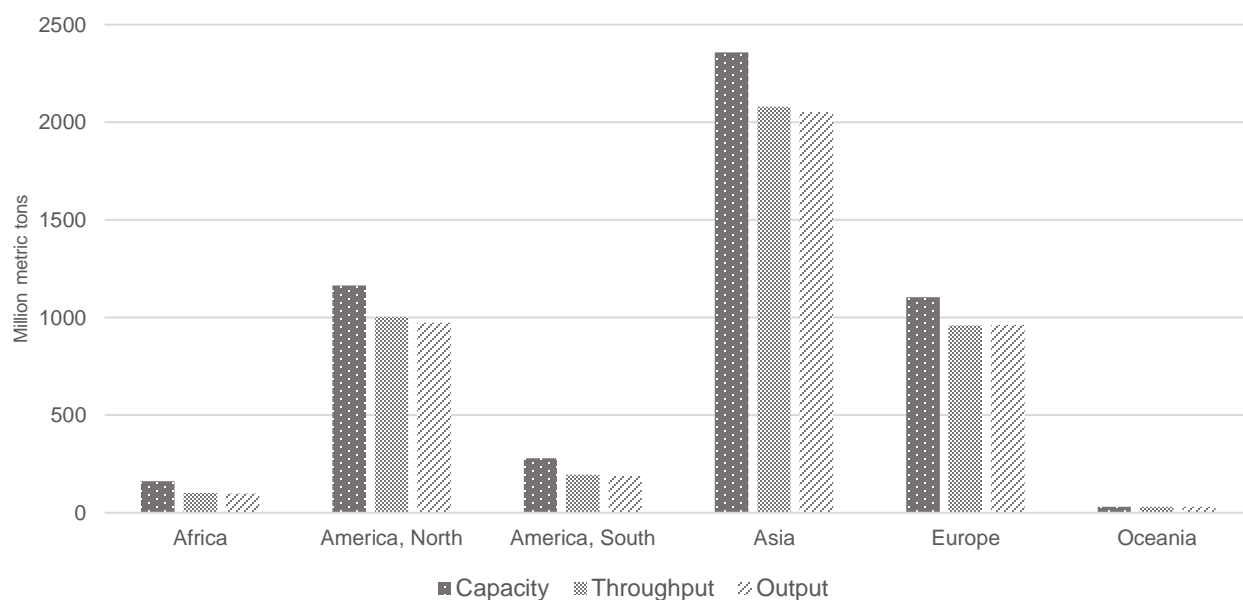
**Table Notes**

**Output** is equal to the sum of “production from refineries” for aviation gasoline, bitumen, gas/diesel oil, ethane, feedstocks, gasoline-type jet fuel, kerosene-type jet fuel, other kerosene, liquefied petroleum gas, lubricants, motor gasoline, naphtha, petroleum coke, other oil products, paraffin waxes, fuel oil, refinery gas and white spirits.

**Throughput** is equal to the sum of “transformation in refineries” for conventional crude oil, feedstocks, other hydrocarbons, additives and oxygenates, and natural gas liquids.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 43: Refinery distillation capacity, throughput and output by region, 2019**



**Figure 44: Total refinery distillation capacity by region, 1990-2019**

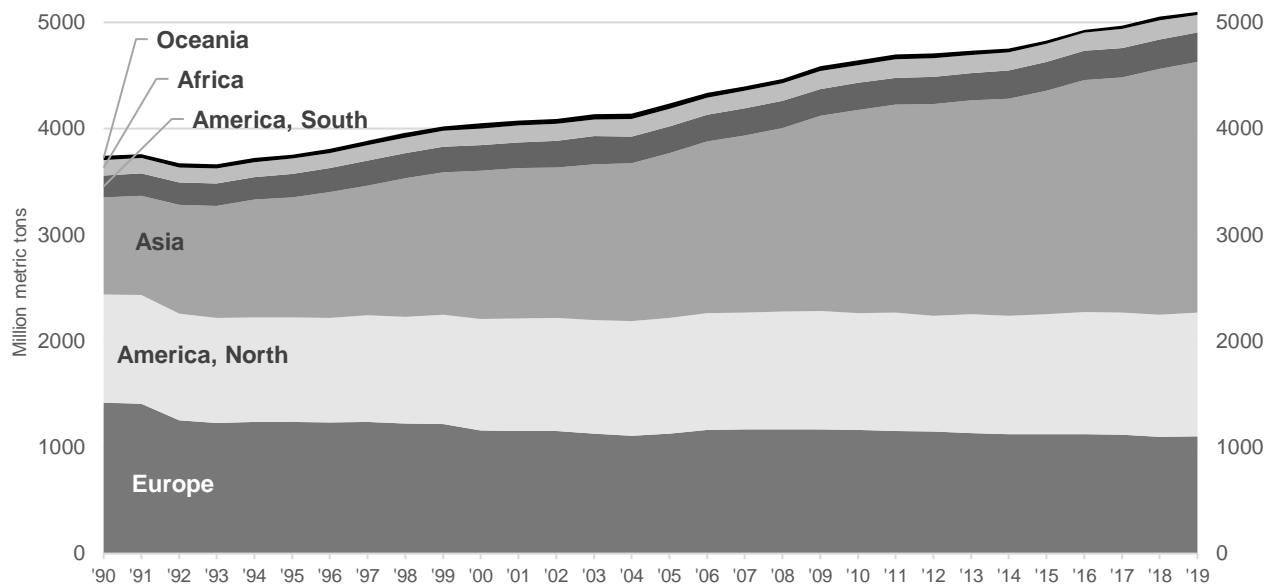


Table 16

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
<b>World</b>	<b>2016</b>	<b>4,931,311</b>	<b>4,266,430</b>	<b>4,181,061</b>
	<b>2017</b>	<b>4,969,960</b>	<b>4,349,209</b>	<b>4,258,112</b>
	<b>2018</b>	<b>5,052,062</b>	<b>4,388,039</b>	<b>4,311,362</b>
	<b>2019</b>	<b>5,098,632</b>	<b>4,370,833</b>	<b>4,303,360</b>
<b>Africa</b>	<b>2016</b>	<b>169,703</b>	<b>101,871</b>	<b>100,247</b>
	<b>2017</b>	<b>181,235</b>	<b>100,487</b>	<b>95,459</b>
	<b>2018</b>	<b>182,182</b>	<b>103,608</b>	<b>98,683</b>
	<b>2019</b>	<b>161,752</b>	<b>100,854</b>	<b>97,866</b>
Algeria	2016	32,459	29,355	29,160
	2017	32,459	28,513	28,317
	2018	32,858	30,784	29,914
	2019	32,858	28,628	28,298
Angola	2016	4,005	2,656	2,641
	2017	4,005	2,577	2,547
	2018	4,005	1,852	1,853
	2019	4,005	2,520	2,514
Cameroon	2016	*2,100	1,805	1,596
	2017	2,100	1,485	1,313
	2018	2,100	1,346	1,191
	2019	2,100	696	616
Chad	2016	*998	700	*669
	2017	*998	700	*670
	2018	*998	700	*671
	2019	*998	700	*678
Congo	2016	1,047	723	649
	2017	1,047	838	716
	2018	1,047	851	725
	2019	1,047	860	735
Côte d'Ivoire	2016	3,192	3,474	3,186
	2017	3,192	3,296	*3,064
	2018	*3,740	3,433	3,366
	2019	*3,740	3,738	3,711
Egypt	2016	38,040	24,955	25,052
	2017	38,040	27,107	23,888
	2018	38,040	26,328	26,083
	2019	39,133	28,489	28,310
Gabon	2016	1,197	850	849
	2017	*1,197	811	793
	2018	*1,197	742	726
	2019	1,197	638	624
Ghana	2016	2,244	769	739
	2017	2,244	24	19
	2018	*2,244	405	310
	2019	2,244	619	624
Libya	2016	18,953	4,063	4,004
	2017	18,953	4,835	4,793
	2018	18,953	5,647	5,598
	2019	*18,953	4,794	4,677
Morocco	2016	7,726	0	0
	2017	7,725	..	..
	2018	7,725	..	..
	2019	7,716	..	..

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Niger	2016	1,200	734	596
	2017	*1,200	931	814
	2018	*1,200	818	763
	2019	*1,200	755	634
Nigeria	2016	21,135	3,503	3,351
	2017	22,195	4,722	4,379
	2018	*22,195	2,744	2,389
	2019	10,743	846	742
Senegal	2016	1,248	1,231	1,124
	2017	1,248	1,319	1,202
	2018	1,248	1,051	981
	2019	1,248	1,024	886
Sierra Leone	2016	499	..	..
	2017	499	..	..
	2018	*499	..	..
	2019	*499	..	..
South Africa	2016	24,589	20,933	20,809
	2017	35,062	17,998	17,918
	2018	*35,062	21,704	19,125
	2019	*25,000	22,141	20,633
Sudan	2016	6,074	*4,384	4,165
	2017	6,074	*3,799	3,609
	2018	6,074	*3,495	3,320
	2019	*6,074	*3,540	*3,362
Tunisia	2016	1,800	1,192	1,192
	2017	1,800	912	848
	2018	1,800	1,062	1,074
	2019	1,800	*165	163
Zambia	2016	1,197	544	465
	2017	1,197	620	569
	2018	1,197	647	595
	2019	1,197	700	658
<b>America, North</b>	<b>2016</b>	<b>1,147,766</b>	<b>1,012,953</b>	<b>987,261</b>
	<b>2017</b>	<b>1,149,870</b>	<b>1,019,523</b>	<b>990,990</b>
	<b>2018</b>	<b>1,152,192</b>	<b>1,023,600</b>	<b>995,146</b>
	<b>2019</b>	<b>1,165,140</b>	<b>1,003,754</b>	<b>972,071</b>
Aruba	2016	*11,463	..	..
	2017	*11,463	..	..
	2018	*11,463	..	..
	2019	*11,463	..	..
Canada	2016	102,618	92,850	88,966
	2017	95,342	97,848	92,827
	2018	95,342	95,716	89,859
	2019	97,134	105,302	99,453
Cuba	2016	6,135	*2,305	2,205
	2017	6,135	*2,763	2,632
	2018	6,135	*2,888	2,751
	2019	*6,135	*2,823	2,566
Curaçao	2016	16,708	8,539	8,216
	2017	16,708	4,598	4,295
	2018	*16,708	3,433	3,060
	2019	*16,708	0	0

Table 16

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Dominican Republic	2016	1,721	1,171	1,097
	2017	1,721	955	899
	2018	1,721	1,279	1,208
	2019	2,486	1,283	1,156
Guatemala	2016	247	56	56
	2017	247	88	85
	2018	*249	*151	147
	2019	*250	*210	203
Jamaica	2016	1,795	1,155	1,094
	2017	1,796	1,115	1,048
	2018	1,796	1,035	1,032
	2019	1,747	1,240	1,240
Mexico	2016	79,900	55,732	50,634
	2017	81,147	45,496	44,357
	2018	81,796	36,589	35,566
	2019	81,796	35,914	34,410
Nicaragua	2016	995	682	659
	2017	998	701	692
	2018	998	*678	639
	2019	*988	547	518
Trinidad and Tobago	2016	8,379	7,663	7,303
	2017	8,379	6,740	6,387
	2018	*8,379	5,373	5,032
	2019	*8,379	..	..
United States	2016	917,805	842,800	827,031
	2017	925,935	859,220	837,767
	2018	927,606	876,458	855,853
	2019	938,055	856,434	832,525
<b>America, South</b>	<b>2016</b>	<b>276,519</b>	<b>213,929</b>	<b>209,245</b>
	<b>2017</b>	<b>277,897</b>	<b>205,702</b>	<b>200,858</b>
	<b>2018</b>	<b>277,789</b>	<b>197,825</b>	<b>195,618</b>
	<b>2019</b>	<b>278,063</b>	<b>195,105</b>	<b>188,480</b>
Argentina	2016	31,621	26,205	26,363
	2017	31,621	25,559	25,741
	2018	31,621	24,082	24,053
	2019	31,621	24,379	24,127
Bolivia (Plur. State of)	2016	*3,394	2,834	2,514
	2017	3,394	2,700	2,341
	2018	3,394	2,551	2,213
	2019	3,394	2,210	1,934
Brazil	2016	123,309	97,091	97,217
	2017	123,309	93,719	93,083
	2018	123,122	90,953	91,463
	2019	123,396	91,799	91,193
Chile	2016	10,972	9,934	9,429
	2017	11,471	9,934	9,648
	2018	*11,471	10,307	9,727
	2019	*11,471	10,978	10,245
Colombia	2016	20,948	18,057	15,184
	2017	20,948	18,861	17,180
	2018	20,948	19,923	19,408
	2019	20,948	20,045	19,518

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Ecuador	2016	8,723	8,134	7,695
	2017	8,786	8,350	7,759
	2018	8,865	8,563	8,259
	2019	8,865	7,786	7,168
Paraguay	2016	370	..	..
	2017	370	..	..
	2018	370	..	..
	2019	370	..	..
Peru	2016	9,923	8,792	8,561
	2017	9,923	9,632	9,373
	2018	9,923	9,515	8,660
	2019	9,923	9,030	8,162
Suriname	2016	745	514	542
	2017	743	660	685
	2018	743	649	671
	2019	743	617	637
Uruguay	2016	2,494	2,043	1,994
	2017	2,494	585	557
	2018	2,494	2,165	2,073
	2019	2,494	2,054	1,991
Venezuela (Bolivar. Rep.)	2016	64,020	40,324	39,747
	2017	64,838	35,703	34,492
	2018	64,838	29,117	29,092
	2019	64,838	26,208	23,503
<b>Asia</b>	<b>2016</b>	<b>2,184,865</b>	<b>1,942,536</b>	<b>1,909,553</b>
	<b>2017</b>	<b>2,210,644</b>	<b>2,010,040</b>	<b>1,974,117</b>
	<b>2018</b>	<b>2,310,919</b>	<b>2,059,016</b>	<b>2,028,252</b>
	<b>2019</b>	<b>2,358,043</b>	<b>2,078,966</b>	<b>2,052,263</b>
Afghanistan	2016	150	*110	*106
	2017	150	*117	*112
	2018	*185	*185	*176
	2019	*185	*119	*112
Azerbaijan	2016	10,000	6,000	5,793
	2017	5,985	5,878	5,559
	2018	*5,985	6,091	5,963
	2019	*5,985	6,194	6,041
Bahrain	2016	12,968	12,854	13,058
	2017	12,968	13,182	13,303
	2018	12,968	12,940	13,227
	2019	13,317	13,149	13,386
Bangladesh	2016	1,502	1,268	1,174
	2017	1,502	1,621	1,432
	2018	1,920	1,439	1,249
	2019	1,920	1,576	1,408
Brunei Darussalam	2016	*900	332	306
	2017	900	285	232
	2018	900	357	321
	2019	*8,734	1,879	1,330
China	2016	*748,130	632,529	637,212
	2017	*790,000	671,438	675,125
	2018	*835,611	713,743	711,792
	2019	*860,000	764,674	764,010



Table 16

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Georgia	2016	*5,440	26	25
	2017	*5,440	25	24
	2018	*5,440	24	22
	2019	*5,440	38	37
India	2016	233,966	255,343	253,122
	2017	247,566	262,114	260,900
	2018	249,366	267,061	273,711
	2019	249,866	*263,999	263,195
Indonesia	2016	46,957	44,250	37,793
	2017	46,957	44,402	38,923
	2018	58,210	42,375	38,887
	2019	58,309	*48,174	42,353
Iran (Islamic Rep. of)	2016	92,600	87,369	87,830
	2017	92,347	89,736	87,782
	2018	104,314	88,823	88,357
	2019	109,776	89,349	88,068
Iraq	2016	26,434	22,325	20,404
	2017	26,421	26,640	24,034
	2018	40,648	30,130	27,271
	2019	41,087	31,954	29,953
Israel	2016	14,300	14,172	14,174
	2017	15,225	14,088	14,088
	2018	15,225	14,782	14,782
	2019	*15,225	15,268	15,268
Japan	2016	195,347	165,375	162,776
	2017	175,960	161,082	157,198
	2018	175,511	154,242	150,956
	2019	172,459	150,938	147,426
Jordan	2016	4,509	3,193	2,861
	2017	*4,509	3,005	2,671
	2018	*4,509	2,521	2,281
	2019	*4,509	2,566	2,251
Kazakhstan	2016	16,958	*13,703	12,881
	2017	16,958	*14,523	13,619
	2018	16,958	16,257	14,617
	2019	21,446	17,070	15,910
Korea, Dem.Ppl's.Rep.	2016	3,541	532	515
	2017	3,494	532	515
	2018	3,494	532	515
	2019	3,494	532	515
Korea, Republic of	2016	152,780	152,491	146,029
	2017	158,404	161,936	153,142
	2018	166,883	165,075	158,099
	2019	166,883	163,247	157,811
Kuwait	2016	46,683	41,749	37,847
	2017	39,202	33,813	32,151
	2018	36,708	35,101	32,449
	2019	39,900	31,400	30,906
Kyrgyzstan	2016	*750	387	379
	2017	*800	445	431
	2018	*800	549	544
	2019	800	322	318

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Malaysia	2016	26,862	26,596	24,249
	2017	26,862	26,333	26,501
	2018	26,862	24,727	24,093
	2019	26,862	23,399	22,506
Myanmar	2016	2,545	*428	405
	2017	2,545	*410	406
	2018	2,545	258	247
	2019	*2,545	213	207
Oman	2016	11,072	8,289	7,981
	2017	15,112	10,523	9,625
	2018	15,112	12,910	12,141
	2019	*15,112	13,023	11,982
Other Asia	2016	65,382	45,443	45,311
	2017	56,898	44,622	44,406
	2018	56,898	46,828	46,752
	2019	56,898	46,741	46,305
Pakistan	2016	19,370	12,497	12,276
	2017	19,950	*14,440	13,751
	2018	20,818	13,856	13,472
	2019	20,798	12,504	11,939
Philippines	2016	13,766	10,671	10,089
	2017	*13,766	10,380	9,847
	2018	*13,766	11,743	11,110
	2019	*13,766	8,129	7,735
Qatar	2016	21,397	12,935	12,853
	2017	21,446	15,943	15,883
	2018	21,446	15,947	15,867
	2019	21,446	16,239	16,047
Saudi Arabia	2016	140,279	149,752	146,396
	2017	142,475	150,891	148,540
	2018	140,960	149,454	146,532
	2019	144,404	*126,366	128,774
Singapore	2016	67,057	50,580	50,852
	2017	67,057	54,300	53,684
	2018	67,057	53,728	49,002
	2019	67,057	50,147	50,315
Sri Lanka	2016	2,494	1,746	1,647
	2017	2,494	1,646	1,636
	2018	2,494	1,675	1,607
	2019	2,494	1,865	1,797
Syrian Arab Republic	2016	11,963	7,079	6,996
	2017	11,963	7,861	7,768
	2018	11,963	7,360	7,275
	2019	11,963	6,359	6,284
Tajikistan	2016	150	25	24
	2017	150	24	23
	2018	*150	45	46
	2019	150	33	30
Thailand	2016	61,571	60,820	57,789
	2017	61,571	62,238	59,202
	2018	61,571	62,245	60,363
	2019	61,571	56,363	54,687

Table 16

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Turkey	2016	33,067	29,751	29,605
	2017	*33,067	32,071	31,940
	2018	*33,067	28,498	28,227
	2019	*33,067	37,430	37,005
Turkmenistan	2016	13,017	8,896	8,540
	2017	13,017	8,888	8,532
	2018	13,017	8,882	8,526
	2019	13,017	8,879	8,524
United Arab Emirates	2016	56,119	51,141	49,179
	2017	56,119	53,299	50,401
	2018	56,210	51,926	52,431
	2019	56,210	48,493	49,487
Uzbekistan	2016	*7,880	3,807	3,653
	2017	*7,880	3,971	3,609
	2018	*7,880	4,215	3,847
	2019	*7,880	4,074	3,611
Viet Nam	2016	9,975	7,150	6,662
	2017	6,500	6,128	6,122
	2018	16,484	11,047	10,301
	2019	*16,484	13,938	12,815
Yemen	2016	6,983	922	761
	2017	*6,983	1,211	999
	2018	*6,983	1,447	1,194
	2019	*6,983	2,322	1,916
<b>Europe</b>	<b>2016</b>	<b>1,123,197</b>	<b>964,803</b>	<b>945,991</b>
	<b>2017</b>	<b>1,119,656</b>	<b>983,904</b>	<b>968,832</b>
	<b>2018</b>	<b>1,098,296</b>	<b>973,133</b>	<b>965,096</b>
	<b>2019</b>	<b>1,104,617</b>	<b>960,641</b>	<b>961,624</b>
Albania	2016	1,494	184	183
	2017	1,494	513	503
	2018	1,494	298	291
	2019	1,494	335	323
Austria	2016	9,661	8,721	8,554
	2017	9,576	8,653	8,496
	2018	9,576	9,281	9,165
	2019	9,576	9,642	9,555
Belarus	2016	24,605	18,964	18,697
	2017	24,605	18,723	18,451
	2018	27,082	19,026	18,752
	2019	27,082	17,854	17,607
Belgium	2016	38,738	33,755	33,631
	2017	38,703	35,510	35,283
	2018	*38,703	34,344	34,070
	2019	*38,703	35,478	35,152
Bosnia and Herzegovina	2016	*11,970	836	826
	2017	*11,970	878	862
	2018	*11,970	697	704
	2019	*11,970	83	74
Bulgaria	2016	9,726	7,268	6,942
	2017	*9,726	7,588	7,142
	2018	*9,726	6,486	6,189
	2019	*9,726	7,347	6,968

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Croatia	2016	10,699	3,765	3,715
	2017	*10,699	3,947	3,882
	2018	*10,699	3,979	3,929
	2019	*10,699	2,933	2,908
Czechia	2016	9,676	5,710	5,604
	2017	*9,676	8,250	8,183
	2018	*9,676	7,864	7,848
	2019	*9,676	8,161	8,089
Denmark	2016	8,449	9,141	9,091
	2017	9,027	8,796	8,759
	2018	*9,027	9,114	9,095
	2019	*9,027	8,620	8,602
Finland	2016	13,017	14,563	14,307
	2017	13,017	14,806	14,727
	2018	13,017	14,798	14,866
	2019	13,017	14,884	14,808
France	2016	70,120	59,877	59,365
	2017	70,124	59,828	59,348
	2018	70,124	56,115	55,639
	2019	70,124	51,216	50,842
Germany	2016	109,176	102,772	100,381
	2017	104,400	103,934	101,529
	2018	*104,400	99,453	97,088
	2019	*104,400	99,884	97,682
Greece	2016	*26,234	30,232	30,217
	2017	*26,234	31,777	31,766
	2018	*26,234	32,785	32,771
	2019	*26,234	30,138	30,133
Hungary	2016	8,030	7,403	7,334
	2017	8,100	7,220	7,146
	2018	8,229	7,737	7,658
	2019	8,229	7,480	7,402
Ireland	2016	3,541	3,233	3,180
	2017	3,741	3,190	3,184
	2018	3,741	3,061	3,057
	2019	3,741	2,767	2,733
Italy	2016	100,418	72,039	71,361
	2017	100,904	75,646	74,946
	2018	100,904	72,400	71,741
	2019	100,900	74,242	73,437
Lithuania	2016	*10,220	9,914	9,790
	2017	*10,220	10,128	10,021
	2018	10,220	9,891	9,782
	2019	10,220	9,720	9,605
Netherlands	2016	60,503	60,492	60,097
	2017	65,835	60,004	59,664
	2018	65,835	61,097	60,920
	2019	*64,374	62,099	61,863
North Macedonia	2016	2,494	0	0
	2017	2,494	0	0
	2018	2,494	..	..
	2019	2,494	..	..

Table 16

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Norway	2016	15,910	13,028	13,014
	2017	17,955	16,094	16,358
	2018	*17,955	17,046	16,823
	2019	*17,955	15,291	15,100
Poland	2016	29,250	27,470	27,027
	2017	29,250	27,220	26,694
	2018	29,250	28,858	28,226
	2019	29,250	28,983	28,457
Portugal	2016	16,459	14,915	14,915
	2017	16,459	15,478	15,478
	2018	16,459	13,847	13,796
	2019	16,459	12,813	12,762
Republic of Moldova	2016	19	16	16
	2017	19	15	15
	2018	19	10	10
	2019	19	6	5
Romania	2016	18,824	12,194	12,194
	2017	18,853	12,484	12,462
	2018	*18,853	12,595	12,584
	2019	*18,853	13,337	13,327
Russian Federation	2016	287,200	285,274	273,944
	2017	287,200	289,136	281,548
	2018	*287,200	286,135	285,776
	2019	*287,200	286,916	297,661
Serbia	2016	10,715	3,456	3,435
	2017	10,715	3,659	3,638
	2018	*10,715	3,880	3,859
	2019	*10,715	3,514	3,496
Slovakia	2016	5,736	6,274	6,214
	2017	*5,736	6,150	6,119
	2018	*5,736	5,950	5,930
	2019	*5,736	5,602	5,580
Slovenia	2016	673	..	..
	2017	673	..	..
	2018	673	..	..
	2019	673	..	..
Spain	2016	71,197	65,696	64,893
	2017	71,197	66,825	65,766
	2018	71,197	68,717	67,599
	2019	*79,083	66,539	65,221
Sweden	2016	21,796	21,085	21,211
	2017	*21,796	20,703	21,132
	2018	*21,796	21,994	21,649
	2019	*21,796	18,933	18,078
Switzerland	2016	3,392	3,007	3,005
	2017	3,392	2,895	2,877
	2018	3,392	3,070	3,069
	2019	3,292	2,781	2,763
Ukraine	2016	43,944	3,014	2,851
	2017	43,566	3,584	3,050
	2018	*19,600	3,890	4,008
	2019	*19,600	3,707	*2,843

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
United Kingdom	2016	69,312	60,505	59,997
	2017	*62,300	60,270	59,805
	2018	*62,300	58,715	58,205
	2019	*62,300	59,338	58,548
<b>Oceania</b>	<b>2016</b>	<b>29,262</b>	<b>30,339</b>	<b>28,763</b>
	<b>2017</b>	<b>30,658</b>	<b>29,552</b>	<b>27,855</b>
	<b>2018</b>	<b>30,683</b>	<b>30,857</b>	<b>28,567</b>
	<b>2019</b>	<b>31,017</b>	<b>31,513</b>	<b>31,056</b>
Australia	2016	22,329	23,410	21,873
	2017	22,329	22,604	21,135
	2018	22,354	24,065	22,070
	2019	22,688	24,234	23,778
New Zealand	2016	5,337	5,522	5,522
	2017	6,733	5,527	5,343
	2018	6,733	5,532	5,330
	2019	6,733	5,956	6,053
Papua New Guinea	2016	1,596	1,407	1,368
	2017	*1,596	1,421	1,378
	2018	*1,596	1,260	1,167
	2019	*1,596	*1,323	*1,226



### Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

#### Table Notes

**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

Figure 45: Production of LPG by region, 1990-2019

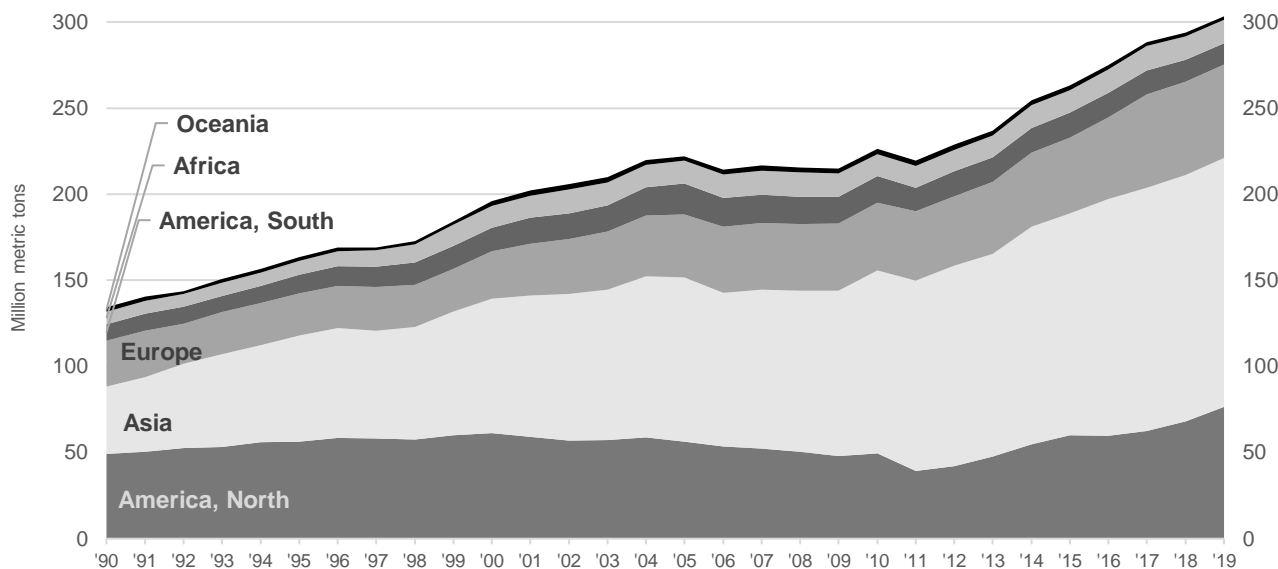


Figure 46: Major LPG producing countries, 2019

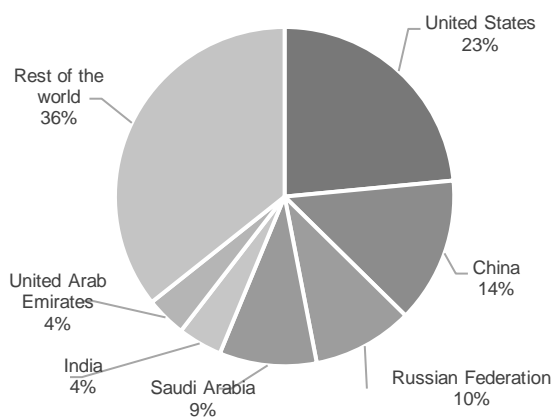


Figure 47: Major LPG consuming countries, 2019

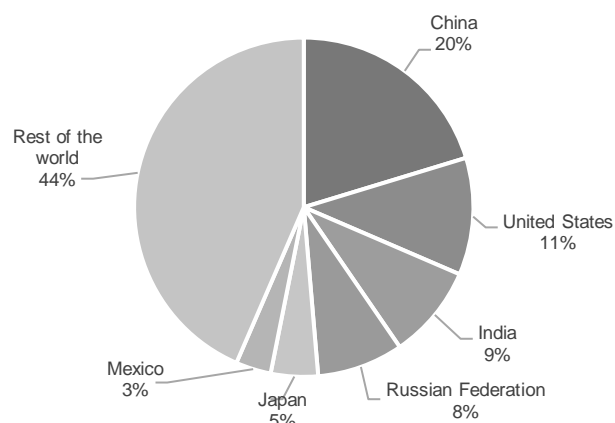




Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>274,879</b>	<b>111,390</b>	<b>118,845</b>	<b>-3,244</b>	<b>270,669</b>	<b>36</b>
	<b>2017</b>	<b>288,254</b>	<b>116,871</b>	<b>123,184</b>	<b>-669</b>	<b>282,610</b>	<b>37</b>
	<b>2018</b>	<b>293,850</b>	<b>123,010</b>	<b>126,485</b>	<b>-497</b>	<b>290,871</b>	<b>38</b>
	<b>2019</b>	<b>303,251</b>	<b>129,177</b>	<b>127,817</b>	<b>1,117</b>	<b>303,493</b>	<b>39</b>
<b>Africa</b>	<b>2016</b>	<b>13,662</b>	<b>6,974</b>	<b>8,519</b>	<b>-868</b>	<b>12,985</b>	<b>11</b>
	<b>2017</b>	<b>14,122</b>	<b>7,545</b>	<b>8,729</b>	<b>-642</b>	<b>13,579</b>	<b>11</b>
	<b>2018</b>	<b>13,605</b>	<b>7,982</b>	<b>8,376</b>	<b>-724</b>	<b>13,935</b>	<b>11</b>
	<b>2019</b>	<b>13,480</b>	<b>8,257</b>	<b>7,315</b>	<b>-182</b>	<b>14,604</b>	<b>11</b>
Algeria	2016	9,358	..	7,310	9	2,039	50
	2017	9,155	..	6,932	24	2,199	53
	2018	8,972	..	6,617	27	2,328	55
	2019	8,917	..	6,260	-17	2,674	62
Angola	2016	252	71	360	*-840	*803	*28
	2017	968	327	957	*-705	1,043	35
	2018	839	336	1,045	*-744	874	28
	2019	1,085	429	353	*169	992	31
Benin	2016	..	16	..	-1	17	2
	2017	..	17	..	0	17	1
	2018	..	22	..	0	21	2
	2019	..	27	..	-1	27	2
Botswana	2016	..	11	..	..	11	5
	2017	..	11	..	..	11	5
	2018	..	12	..	..	12	5
	2019	..	12	..	..	12	5
Burkina Faso	2016	..	74	..	*2	72	4
	2017	..	85	..	*6	79	4
	2018	..	100	..	*11	89	5
	2019	..	100	..	0	100	5
Cabo Verde	2016	..	13	..	..	13	24
	2017	..	*13	..	..	*13	*24
	2018	..	14	..	..	14	25
	2019	..	*14	..	..	*14	*25
Cameroon	2016	13	69	..	..	82	3
	2017	11	93	..	..	103	4
	2018	10	94	..	..	104	4
	2019	5	88	..	..	93	4
Central African Rep.	2016	..	2	..	..	2	0
	2017	..	2	..	..	2	0
	2018	..	2	..	..	2	0
	2019	..	2	..	..	2	0
Chad	2016	*52	..	*25	..	*27	*2
	2017	*52	..	*23	..	*28	*2
	2018	*52	..	*15	..	*37	*2
	2019	*50	..	*15	..	*35	*2
Comoros	2016	..	*1	..	..	*1	*1
	2017	..	*1	..	..	*1	*1
	2018	..	*1	..	..	*1	*2
	2019	..	*1	..	..	*1	*2
Congo	2016	7	..	..	..	7	1
	2017	8	..	..	..	8	2
	2018	8	..	..	..	8	2
	2019	8	..	..	..	8	2

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Côte d'Ivoire	2016	22	248	1	..	269	11
	2017	*16	*297	1	..	*312	*13
	2018	23	341	1	..	363	14
	2019	28	385	20	..	393	15
Djibouti	2016	..	15	..	..	15	16
	2017	..	*15	..	..	*15	*16
	2018	..	*15	..	..	*15	*16
	2019	..	*15	..	..	*15	*15
Egypt	2016	1,852	2,444	..	-25	4,321	46
	2017	1,763	2,444	..	35	4,172	43
	2018	1,890	2,327	..	0	4,217	43
	2019	1,764	2,229	..	..	3,993	40
Equatorial Guinea	2016	605	..	604	*-23	24	20
	2017	660	..	656	-17	22	17
	2018	587	..	574	*-10	23	17
	2019	512	..	495	*-5	22	16
Eritrea	2016	..	6	..	..	6	2
	2017	..	6	..	..	6	2
	2018	..	7	..	..	7	2
	2019	..	7	..	..	7	2
Eswatini	2016	..	*2	..	..	*2	*2
	2017	..	0	..	..	0	0
	2018	..	4	..	..	4	4
	2019	..	4	..	..	4	3
Ethiopia	2016	..	8	..	..	8	0
	2017	..	5	..	..	5	0
	2018	..	5	..	..	5	0
	2019	..	7	..	..	7	0
Gabon	2016	14	23	..	..	37	18
	2017	41	36	..	..	77	37
	2018	37	32	..	..	70	33
	2019	38	33	..	..	71	33
Gambia	2016	..	*2	..	..	*2	*1
	2017	..	*2	..	..	*2	*1
	2018	..	*2	..	..	*2	*1
	2019	..	*2	..	..	*2	*1
Ghana	2016	114	178	25	..	267	9
	2017	114	202	40	..	276	9
	2018	88	315	5	..	398	13
	2019	70	275	1	-4	348	11
Guinea-Bissau	2016	..	*3	..	..	*3	*2
	2017	..	*3	..	..	*3	*2
	2018	..	*3	..	..	*3	*2
	2019	..	*3	..	..	*3	*2
Kenya	2016	0	172	3	0	169	3
	2017	0	190	1	0	189	4
	2018	..	222	..	..	222	4
	2019	..	304	3	..	301	6
Lesotho	2016	..	7	..	..	7	4
	2017	..	9	..	..	9	4
	2018	..	10	..	..	10	5
	2019	..	14	..	..	14	6

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Liberia	2016	..	2	..	..	2	0
	2017	..	2	..	..	2	0
	2018	..	*2	..	..	*2	0
	2019	..	*2	..	..	*2	0
Libya	2016	311	..	42	..	269	41
	2017	320	..	43	..	278	42
	2018	327	..	46	..	281	42
	2019	319	..	38	..	281	41
Madagascar	2016	..	13	..	*6	8	0
	2017	..	12	..	-2	13	1
	2018	..	14	0	0	14	1
	2019	..	17	0	2	15	1
Malawi	2016	..	*3	..	..	*3	0
	2017	..	*3	..	..	*3	0
	2018	..	*3	..	..	*3	0
	2019	..	*3	..	..	*3	0
Mali	2016	..	15	..	0	15	1
	2017	..	20	..	*4	16	1
	2018	..	*18	..	0	*18	*1
	2019	..	*19	..	..	*19	*1
Mauritania	2016	..	62	..	..	62	15
	2017	..	61	..	*-2	64	15
	2018	..	58	..	*-3	61	14
	2019	..	85	..	*32	53	12
Mauritius	2016	..	167	*91	1	75	59
	2017	..	149	..	74	75	59
	2018	..	169	..	91	78	62
	2019	..	175	62	29	84	66
Morocco	2016	0	2,472	..	7	2,465	69
	2017	..	2,493	..	-59	2,552	71
	2018	..	2,592	..	-13	2,605	71
	2019	..	2,729	..	-27	2,756	74
Mozambique	2016	..	19	..	0	19	1
	2017	..	33	..	..	33	1
	2018	..	32	..	..	32	1
	2019	..	37	..	..	37	1
Namibia	2016	..	22	..	..	22	9
	2017	..	37	..	..	37	15
	2018	..	55	..	..	55	22
	2019	..	49	..	..	49	20
Niger	2016	35	0	4	0	32	2
	2017	47	0	*15	0	32	1
	2018	53	1	16	..	38	2
	2019	60	0	..	..	61	3
Nigeria	2016	66	..	..	..	66	0
	2017	79	..	..	..	79	0
	2018	48	57	..	-81	187	1
	2019	3	..	..	-361	364	2
Rwanda	2016	..	6	..	..	6	0
	2017	..	13	..	..	13	1
	2018	..	19	..	..	19	2
	2019	..	25	..	..	25	2

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Senegal	2016	3	147	14	-1	137	9
	2017	3	151	..	0	154	10
	2018	3	138	..	0	141	9
	2019	3	176	7	0	172	11
Seychelles	2016	..	3	..	..	3	36
	2017	..	5	..	..	5	52
	2018	..	4	..	..	4	37
	2019	..	4	..	..	4	40
Somalia	2016	..	*6	..	..	*6	0
	2017	..	*6	..	..	*6	0
	2018	..	*6	..	..	*6	0
	2019	..	*6	..	..	*6	0
South Africa	2016	420	105	41	..	484	9
	2017	405	105	60	..	450	8
	2018	246	114	56	..	304	5
	2019	221	86	60	..	247	4
South Sudan	2016	..	3	..	..	3	0
	2017	..	3	..	..	3	0
	2018	..	3	..	..	3	0
	2019	..	3	..	..	3	0
Sudan	2016	373	57	..	..	430	11
	2017	329	115	..	..	444	11
	2018	277	161	..	..	439	10
	2019	*281	*163	..	..	*444	*10
Togo	2016	..	7	..	..	7	1
	2017	..	12	..	..	12	2
	2018	..	12	..	-1	13	2
	2019	..	12	..	..	12	1
Tunisia	2016	160	363	..	-3	526	47
	2017	142	420	..	0	562	49
	2018	136	443	..	..	579	50
	2019	105	495	..	1	599	51
Uganda	2016	..	*5	..	..	*5	0
	2017	..	*4	..	..	*4	0
	2018	..	62	..	..	62	1
	2019	..	62	..	..	62	1
United Rep. of Tanzania	2016	..	107	..	..	107	2
	2017	..	121	..	..	121	2
	2018	..	128	..	..	128	2
	2019	..	128	..	..	128	2
Zambia	2016	5	..	1	..	4	0
	2017	9	..	1	..	8	0
	2018	9	..	1	..	8	0
	2019	11	..	1	..	10	1
Zimbabwe	2016	..	25	..	..	25	2
	2017	..	22	..	..	22	2
	2018	..	27	..	..	27	2
	2019	..	28	..	..	28	2
America, North	2016	59,605	11,718	28,619	-2,166	44,871	78
	2017	62,422	13,988	32,427	23	43,961	76
	2018	68,148	15,258	36,168	103	47,134	81
	2019	76,582	16,854	42,676	1,636	49,124	84

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Anguilla	2016	..	9	..	..	9	630
	2017	..	*9	..	..	*9	*590
	2018	..	*9	..	..	*9	*590
	2019	..	*9	..	..	*9	*592
Antigua and Barbuda	2016	..	*4	..	..	*4	*38
	2017	..	*4	..	..	*4	*38
	2018	..	*4	..	..	*4	*38
	2019	..	*4	..	..	*4	*38
Aruba	2016	..	*11	..	..	*11	*102
	2017	..	*11	..	..	*11	*104
	2018	..	*11	..	..	*11	*105
	2019	..	*11	..	..	*11	*105
Bahamas	2016	..	14	..	..	14	38
	2017	..	14	..	..	14	37
	2018	..	19	..	..	19	49
	2019	..	18	..	..	18	46
Barbados	2016	..	8	..	0	8	26
	2017	..	8	..	0	8	27
	2018	..	8	..	0	8	27
	2019	..	8	..	0	8	27
Belize	2016	1	23	..	..	24	66
	2017	1	25	..	..	26	70
	2018	1	27	..	..	28	73
	2019	1	26	..	..	27	69
Bermuda	2016	..	26	..	..	26	403
	2017	..	4	..	..	4	70
	2018	..	16	..	..	16	247
	2019	..	14	..	..	14	221
Bonaire, St Eustatius, Saba	2016	..	*1	..	..	*1	*46
	2017	..	*1	..	..	*1	*47
	2018	..	*1	..	..	*1	*47
	2019	..	*1	..	..	*1	*49
Canada	2016	1,165	244	137	-110	1,382	38
	2017	1,524	249	144	33	1,596	43
	2018	1,362	200	120	-9	1,451	39
	2019	1,576	391	187	41	1,739	46
Cayman Islands	2016	..	5	..	..	5	80
	2017	..	5	..	..	5	79
	2018	..	4	..	..	4	64
	2019	..	8	..	..	8	128
Costa Rica	2016	..	160	..	1	159	32
	2017	..	173	..	4	169	34
	2018	..	167	..	-4	171	34
	2019	..	186	..	4	181	36
Cuba	2016	36	77	..	*-28	141	12
	2017	51	115	..	..	167	15
	2018	30	135	..	..	165	15
	2019	22	119	..	..	141	12
Curaçao	2016	96	0	38	..	58	360
	2017	59	..	20	..	39	243
	2018	44	..	15	..	29	180
	2019	0	..	0	..	0	0

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Dominica	2016	..	*2	..	..	*2	*33
	2017	..	*2	..	..	*2	*32
	2018	..	*2	..	..	*2	*32
	2019	..	*2	..	..	*2	*33
Dominican Republic	2016	16	961	..	-2	980	94
	2017	11	977	..	-2	989	94
	2018	14	1,012	..	3	1,023	96
	2019	27	1,010	..	4	1,033	96
El Salvador	2016	0	201	..	..	201	32
	2017	..	179	..	..	179	28
	2018	..	312	..	..	312	49
	2019	..	444	..	..	444	69
Greenland	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	*1
	2019	..	0	..	..	0	*1
Grenada	2016	..	4	..	..	4	37
	2017	..	4	..	..	4	38
	2018	..	4	..	..	4	39
	2019	..	5	..	..	5	48
Guatemala	2016	..	369	109	8	251	15
	2017	..	581	169	17	395	23
	2018	..	544	154	-21	411	24
	2019	..	576	120	24	431	25
Haiti	2016	..	20	..	..	20	2
	2017	..	17	..	..	17	2
	2018	..	18	..	..	18	2
	2019	..	12	..	..	12	1
Honduras	2016	..	224	334	-362	252	27
	2017	..	600	0	287	314	33
	2018	..	653	414	11	227	24
	2019	..	682	385	-19	316	32
Jamaica	2016	9	68	..	1	76	26
	2017	13	87	..	1	99	34
	2018	11	85	..	1	95	32
	2019	7	60	..	0	67	23
Mexico	2016	4,722	4,556	154	39	9,085	74
	2017	4,311	5,587	178	-54	9,774	78
	2018	3,674	6,185	86	-35	9,808	78
	2019	3,270	6,989	21	24	10,214	80
Montserrat	2016	..	0	..	0	0	60
	2017	..	1	..	0	1	120
	2018	..	0	..	..	0	72
	2019	..	0	..	..	0	66
Nicaragua	2016	18	100	..	0	118	19
	2017	20	105	..	0	125	20
	2018	17	108	..	..	125	19
	2019	21	103	..	1	123	19
Panama	2016	..	222	0	23	199	49
	2017	..	288	0	-40	328	80
	2018	..	323	0	7	316	76
	2019	..	333	0	11	322	76

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Sint Maarten (Dutch part)	2016	..	*2	..	..	*2	*49
	2017	..	*2	..	..	*2	*46
	2018	..	*2	..	..	*2	*45
	2019	..	*2	..	..	*2	*45
St. Kitts-Nevis	2016	..	*2	..	..	*2	*41
	2017	..	*2	..	..	*2	*40
	2018	..	*2	..	..	*2	*42
	2019	..	*2	..	..	*2	*42
St. Lucia	2016	..	7	..	..	7	37
	2017	..	9	..	..	9	51
	2018	..	8	..	..	8	46
	2019	..	7	..	..	7	39
St. Vincent-Grenadines	2016	..	9	..	..	9	79
	2017	..	8	..	..	8	68
	2018	..	8	..	..	8	74
	2019	..	8	..	..	8	69
Trinidad and Tobago	2016	561	..	379	188	-6	-4
	2017	609	..	433	163	13	9
	2018	494	..	362	133	-2	-2
	2019	436	..	377	..	59	42
Turks and Caicos Islands	2016	..	*5	..	..	*5	*126
	2017	..	*5	..	..	*5	*132
	2018	..	*5	..	..	*5	*133
	2019	..	*5	..	..	*5	*134
United States	2016	52,981	4,386	27,468	-1,924	31,823	99
	2017	55,823	4,916	31,483	-386	29,642	91
	2018	62,501	5,385	35,017	17	32,852	100
	2019	71,223	5,818	41,586	1,544	33,910	103
<b>America, South</b>	<b>2016</b>	<b>14,091</b>	<b>3,966</b>	<b>1,191</b>	<b>-195</b>	<b>17,061</b>	<b>41</b>
	<b>2017</b>	<b>13,928</b>	<b>4,149</b>	<b>1,285</b>	<b>-91</b>	<b>16,883</b>	<b>40</b>
	<b>2018</b>	<b>12,828</b>	<b>4,514</b>	<b>1,475</b>	<b>-41</b>	<b>15,908</b>	<b>38</b>
	<b>2019</b>	<b>12,451</b>	<b>4,582</b>	<b>1,532</b>	<b>-150</b>	<b>15,651</b>	<b>37</b>
Argentina	2016	2,604	..	879	-27	1,752	40
	2017	2,577	..	891	35	1,651	38
	2018	2,668	..	1,133	-22	1,557	35
	2019	2,768	..	1,224	6	1,538	34
Bolivia (Plur. State of)	2016	533	..	128	-22	427	39
	2017	522	..	115	-38	445	40
	2018	543	..	107	-13	449	40
	2019	563	..	126	-6	442	38
Brazil	2016	5,417	1,864	0	-40	7,321	36
	2017	5,492	1,777	1	59	7,209	35
	2018	5,350	1,881	0	84	7,147	34
	2019	5,214	1,918	0	-17	7,149	34
Chile	2016	251	1,070	12	-31	1,340	74
	2017	286	1,047	72	-6	1,268	69
	2018	434	1,072	114	44	1,349	72
	2019	543	1,000	131	54	1,358	72
Colombia	2016	899	13	52	..	859	18
	2017	981	69	39	..	1,012	21
	2018	613	91	0	..	703	14
	2019	682	122	0	..	804	16

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Ecuador	2016	252	814	..	1	1,065	65
	2017	256	814	..	-1	1,071	64
	2018	390	957	..	0	1,347	79
	2019	267	1,043	..	-2	1,311	75
Guyana	2016	..	16	..	-2	18	24
	2017	..	16	..	-1	17	22
	2018	..	17	..	-2	19	24
	2019	..	20	..	0	20	25
Paraguay	2016	..	92	..	11	81	12
	2017	..	84	..	3	81	12
	2018	..	90	..	4	87	12
	2019	..	92	..	4	88	12
Peru	2016	1,641	34	0	-84	1,759	57
	2017	1,551	222	54	-140	1,858	59
	2018	1,410	356	6	-138	1,899	59
	2019	1,476	341	0	-186	2,003	62
Suriname	2016	..	25	..	..	25	44
	2017	..	24	..	..	24	42
	2018	..	26	..	..	26	45
	2019	..	23	..	..	23	40
Uruguay	2016	96	38	..	0	135	39
	2017	22	96	..	-3	121	35
	2018	106	24	..	2	128	37
	2019	102	25	1	-3	129	37
Venezuela (Bolivar. Rep.)	2016	2,399	..	120	..	2,279	76
	2017	2,239	..	112	..	2,127	72
	2018	1,313	..	116	..	1,197	41
	2019	835	..	50	..	785	28
<b>Asia</b>	<b>2016</b>	<b>137,571</b>	<b>64,523</b>	<b>58,790</b>	<b>133</b>	<b>143,171</b>	<b>32</b>
	<b>2017</b>	<b>141,311</b>	<b>67,125</b>	<b>58,942</b>	<b>-131</b>	<b>149,626</b>	<b>33</b>
	<b>2018</b>	<b>143,105</b>	<b>70,073</b>	<b>58,679</b>	<b>50</b>	<b>154,449</b>	<b>34</b>
	<b>2019</b>	<b>144,566</b>	<b>74,464</b>	<b>54,822</b>	<b>169</b>	<b>164,039</b>	<b>36</b>
Afghanistan	2016	..	741	..	..	741	21
	2017	..	627	..	..	627	17
	2018	..	614	..	..	614	17
	2019	..	675	..	..	675	18
Armenia	2016	..	4	..	..	4	1
	2017	..	6	..	..	6	2
	2018	..	16	..	..	16	5
	2019	..	30	..	..	30	10
Azerbaijan	2016	200	..	59	0	141	14
	2017	212	..	82	-3	133	14
	2018	216	..	82	1	132	13
	2019	210	1	53	-10	168	17
Bahrain	2016	162	..	79	18	65	46
	2017	149	..	66	14	69	46
	2018	166	..	66	29	71	45
	2019	136	..	62	2	72	44
Bangladesh	2016	18	..	..	..	18	0
	2017	18	..	..	..	18	0
	2018	15	..	..	..	15	0
	2019	19	..	..	..	19	0



Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bhutan	2016	..	8	..	..	8	10
	2017	..	8	..	..	8	11
	2018	..	5	..	..	5	7
	2019	..	10	..	..	10	13
Brunei Darussalam	2016	16	..	..	..	16	38
	2017	17	..	..	..	17	40
	2018	17	..	..	..	17	40
	2019	93	..	48	28	17	38
Cambodia	2016	..	193	..	..	193	12
	2017	..	225	..	..	225	14
	2018	..	270	..	..	270	17
	2019	..	336	..	..	336	20
China	2016	35,039	16,785	1,323	160	50,340	36
	2017	36,625	19,219	1,322	-59	54,581	38
	2018	39,156	19,664	1,135	351	57,334	40
	2019	42,100	21,093	1,409	178	61,606	43
China, Hong Kong SAR	2016	..	362	0	-11	373	51
	2017	..	378	..	41	337	46
	2018	..	373	..	34	339	46
	2019	..	347	..	-31	378	51
China, Macao SAR	2016	..	43	..	0	43	70
	2017	..	42	..	0	42	67
	2018	..	41	..	0	41	65
	2019	..	40	..	1	39	61
Cyprus	2016	..	53	..	..	53	45
	2017	..	55	..	1	54	46
	2018	..	54	..	0	54	45
	2019	..	62	..	0	62	52
Georgia	2016	..	13	..	-4	16	4
	2017	..	15	..	-1	17	4
	2018	..	21	..	-1	21	5
	2019	..	28	0	0	28	7
India	2016	11,326	11,026	317	0	22,035	17
	2017	12,380	11,382	359	..	23,403	17
	2018	*12,786	13,235	417	..	25,604	19
	2019	12,823	14,809	463	..	27,169	20
Indonesia	2016	2,302	4,435	65	..	6,672	26
	2017	2,033	5,475	93	-41	7,456	28
	2018	2,034	5,517	1	1	7,549	28
	2019	2,001	5,715	0	-1	7,716	29
Iran (Islamic Rep. of)	2016	4,819	..	2,745	..	2,074	26
	2017	4,843	..	2,555	0	2,289	28
	2018	4,476	..	*2,573	..	1,903	23
	2019	4,991	..	*2,691	..	2,300	28
Iraq	2016	1,369	297	..	1	1,665	45
	2017	1,622	0	..	-29	1,651	44
	2018	1,782	..	206	..	1,576	41
	2019	1,779	..	163	..	1,616	41
Israel	2016	354	273	170	-2	459	57
	2017	362	308	186	6	478	58
	2018	422	202	164	1	458	55
	2019	425	218	137	-4	510	60

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Japan	2016	4,210	10,542	76	-56	14,732	115
	2017	4,416	10,740	86	-29	15,099	118
	2018	3,755	10,608	66	-94	14,391	113
	2019	3,401	10,440	55	144	13,643	108
Jordan	2016	81	327	..	..	408	43
	2017	78	368	..	..	446	46
	2018	65	357	..	-6	428	43
	2019	68	375	..	..	442	44
Kazakhstan	2016	*2,111	2	1,876	8	*229	*13
	2017	2,315	1	2,031	..	285	16
	2018	2,488	0	1,826	..	662	36
	2019	2,587	1	1,866	38	684	37
Korea, Republic of	2016	2,244	7,250	164	78	9,252	181
	2017	2,773	6,363	210	169	8,757	171
	2018	2,922	6,515	430	-203	9,210	180
	2019	2,882	7,872	477	64	10,213	199
Kuwait	2016	6,032	..	5,574	..	458	116
	2017	6,877	..	6,353	..	524	129
	2018	7,042	..	6,462	..	580	140
	2019	6,037	..	5,306	..	731	174
Kyrgyzstan	2016	27	11	..	-1	39	6
	2017	44	45	..	..	89	14
	2018	55	36	1	4	86	14
	2019	15	37	1	1	50	8
Lao People's Dem. Rep.	2016	..	7	..	..	7	1
	2017	..	13	..	..	13	2
	2018	..	14	..	..	14	2
	2019	..	*14	..	..	*14	*2
Lebanon	2016	..	239	..	..	239	36
	2017	..	235	..	..	235	34
	2018	..	229	..	..	229	33
	2019	..	219	..	..	219	32
Malaysia	2016	3,074	450	326	-28	3,226	105
	2017	2,602	405	191	-19	2,835	91
	2018	2,732	491	419	-102	2,906	92
	2019	2,620	419	297	*-128	2,870	90
Maldives	2016	..	14	..	..	14	29
	2017	..	14	..	..	14	29
	2018	..	15	..	..	15	29
	2019	..	17	..	..	17	32
Myanmar	2016	6	22	..	-2	30	1
	2017	8	39	..	-3	50	1
	2018	13	71	..	-1	84	2
	2019	13	18	..	..	31	1
Nepal	2016	..	313	..	..	313	11
	2017	..	371	..	..	371	13
	2018	..	429	..	..	429	15
	2019	..	401	..	..	401	14
Oman	2016	532	..	376	..	156	35
	2017	655	..	464	..	191	41
	2018	765	..	560	..	205	42
	2019	776	..	556	..	220	44

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Other Asia	2016	1,108	1,722	4	-30	2,856	121
	2017	1,018	1,260	26	-31	2,283	96
	2018	1,131	1,742	80	50	2,743	116
	2019	1,050	1,746	33	-31	2,793	118
Pakistan	2016	667	498	..	..	1,165	6
	2017	*963	495	..	..	*1,458	*7
	2018	*774	478	..	..	*1,252	*6
	2019	*1,041	675	..	..	*1,716	*8
Philippines	2016	460	997	3	4	1,449	14
	2017	446	1,194	6	13	1,621	15
	2018	509	1,307	1	9	1,806	17
	2019	286	1,370	5	-4	1,655	15
Qatar	2016	10,173	..	9,220	..	953	359
	2017	10,019	..	9,030	..	989	363
	2018	10,814	..	9,824	..	990	356
	2019	8,305	..	7,310	..	995	351
Saudi Arabia	2016	29,169	..	25,103	14	4,052	125
	2017	28,804	..	*24,601	-12	4,216	127
	2018	26,729	..	23,797	..	2,932	87
	2019	*28,130	..	*23,534	*-5	*4,601	*134
Singapore	2016	333	9	236	..	106	19
	2017	224	218	317	..	125	22
	2018	833	400	242	..	991	172
	2019	873	570	181	..	1,262	217
Sri Lanka	2016	9	345	..	-2	356	17
	2017	19	205	..	-187	412	19
	2018	22	413	..	-9	444	21
	2019	27	430	..	0	457	21
State of Palestine	2016	..	172	..	..	172	37
	2017	..	190	..	..	190	40
	2018	..	167	..	..	167	34
	2019	..	178	..	..	178	36
Syrian Arab Republic	2016	149	334	..	..	483	28
	2017	157	381	..	..	538	31
	2018	152	352	..	..	504	30
	2019	151	283	..	..	434	25
Tajikistan	2016	..	349	..	..	349	40
	2017	..	353	..	..	353	40
	2018	..	381	..	..	381	42
	2019	..	431	..	..	431	46
Thailand	2016	5,719	456	82	..	6,093	88
	2017	6,056	642	247	..	6,451	93
	2018	6,247	682	385	..	6,544	94
	2019	5,980	550	299	..	6,231	89
Timor-Leste	2016	..	0	..	..	0	0
	2017	..	1	..	..	1	1
	2018	..	1	..	..	1	1
	2019	..	1	..	..	1	1
Turkey	2016	972	3,419	214	-25	4,202	53
	2017	1,015	3,387	269	41	4,092	50
	2018	913	3,312	110	-14	4,129	50
	2019	1,082	3,108	101	-73	4,162	50

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Turkmenistan	2016	998	..	..	..	998	176
	2017	1,015	..	..	..	1,015	176
	2018	1,067	..	..	..	1,067	182
	2019	1,096	..	..	..	1,096	184
United Arab Emirates	2016	12,140	438	10,777	..	1,800	192
	2017	11,841	..	10,448	..	1,393	147
	2018	10,716	..	9,833	..	883	92
	2019	11,691	26	9,774	..	1,942	199
Uzbekistan	2016	856	..	..	12	844	27
	2017	830	..	..	-2	832	26
	2018	819	..	..	-1	819	25
	2019	830	..	..	-1	831	25
Viet Nam	2016	798	1,925	..	..	2,723	29
	2017	761	2,158	..	..	2,919	31
	2018	1,369	1,810	..	..	3,179	33
	2019	887	1,810	..	..	2,697	28
Yemen	2016	101	*450	..	..	*551	*20
	2017	113	*305	..	..	*418	*15
	2018	106	*252	..	..	*358	*13
	2019	163	*109	..	..	272	9
<b>Europe</b>	<b>2016</b>	<b>47,550</b>	<b>23,629</b>	<b>20,595</b>	<b>-228</b>	<b>50,812</b>	<b>68</b>
	<b>2017</b>	<b>54,219</b>	<b>23,444</b>	<b>20,579</b>	<b>206</b>	<b>56,878</b>	<b>76</b>
	<b>2018</b>	<b>54,024</b>	<b>24,651</b>	<b>20,548</b>	<b>42</b>	<b>58,085</b>	<b>78</b>
	<b>2019</b>	<b>54,033</b>	<b>24,508</b>	<b>19,856</b>	<b>-331</b>	<b>59,015</b>	<b>79</b>
Albania	2016	..	189	0	49	140	49
	2017	..	252	0	90	162	56
	2018	..	196	..	25	171	59
	2019	..	173	..	2	171	60
Andorra	2016	..	*2	..	..	*2	*28
	2017	..	*2	..	..	*2	*29
	2018	..	*2	..	..	*2	*31
	2019	..	*2	..	..	*2	*30
Austria	2016	122	53	68	2	105	12
	2017	102	62	62	-3	104	12
	2018	111	62	86	-1	89	10
	2019	137	61	89	9	99	11
Belarus	2016	419	65	346	-11	149	16
	2017	481	251	591	-4	145	15
	2018	562	177	601	-1	139	15
	2019	390	90	344	2	134	14
Belgium	2016	697	1,681	818	23	1,537	135
	2017	738	1,671	845	-13	1,578	138
	2018	829	2,128	672	9	2,275	198
	2019	1,069	2,109	696	9	2,474	214
Bosnia and Herzegovina	2016	19	63	..	..	82	24
	2017	24	76	..	..	100	30
	2018	19	72	..	..	91	27
	2019	1	80	..	-1	82	25
Bulgaria	2016	103	416	19	-6	506	71
	2017	120	407	20	5	501	71
	2018	97	410	29	-2	479	68
	2019	131	367	44	-1	455	65

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Croatia	2016	248	54	155	2	145	34
	2017	283	47	188	-1	143	34
	2018	254	41	159	-3	138	33
	2019	196	75	135	1	134	32
Czechia	2016	255	183	139	5	294	28
	2017	358	172	90	-1	441	41
	2018	356	231	134	..	453	42
	2019	400	210	145	..	465	44
Denmark	2016	102	32	78	-2	58	10
	2017	118	35	85	3	65	11
	2018	126	21	87	0	59	10
	2019	127	17	84	-1	61	11
Estonia	2016	..	36	13	1	22	17
	2017	..	40	14	1	25	19
	2018	..	25	5	..	20	15
	2019	..	41	11	2	28	21
Finland	2016	275	738	10	-57	1,060	193
	2017	285	707	..	103	889	161
	2018	254	785	5	-53	1,087	197
	2019	289	824	23	-7	1,097	198
France	2016	1,528	3,483	1,188	-12	3,835	57
	2017	1,618	3,315	1,225	15	3,693	55
	2018	1,421	3,148	1,056	9	3,504	52
	2019	1,357	3,326	902	-18	3,799	56
Germany	2016	2,744	790	189	-7	3,352	41
	2017	3,419	944	201	1	4,161	50
	2018	3,224	1,080	161	13	4,130	50
	2019	3,232	1,224	252	2	4,202	50
Greece	2016	824	33	250	6	601	57
	2017	837	43	309	-3	574	54
	2018	847	31	329	1	549	52
	2019	802	73	284	-3	593	57
Hungary	2016	222	375	94	3	500	51
	2017	188	461	96	6	547	56
	2018	185	446	87	-2	546	56
	2019	153	479	93	-4	543	56
Iceland	2016	..	3	..	..	3	9
	2017	..	2	..	..	2	7
	2018	..	3	..	0	3	8
	2019	..	3	..	..	3	9
Ireland	2016	41	122	17	..	146	31
	2017	49	132	24	1	156	33
	2018	58	140	31	-1	167	35
	2019	45	139	21	-3	166	34
Italy	2016	1,236	2,403	326	40	3,273	54
	2017	1,348	2,361	305	-44	3,448	57
	2018	1,228	2,264	227	-36	3,301	54
	2019	1,269	2,422	244	41	3,407	56
Kosovo	2016	..	35	..	..	35	20
	2017	..	33	..	..	33	18
	2018	..	31	..	..	31	17
	2019	..	30	..	..	30	17

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Latvia	2016	..	232	139	2	91	46
	2017	..	239	145	2	93	48
	2018	..	227	142	0	85	44
	2019	..	177	101	1	75	40
Lithuania	2016	345	79	213	0	211	73
	2017	363	82	242	-2	204	72
	2018	342	82	237	0	187	67
	2019	399	77	285	2	188	68
Luxembourg	2016	..	14	3	..	11	19
	2017	..	10	1	0	9	15
	2018	..	8	0	..	8	13
	2019	..	10	0	..	9	15
Malta	2016	..	17	..	1	16	37
	2017	..	23	..	-3	26	59
	2018	..	27	..	2	25	58
	2019	..	25	..	-1	27	61
Montenegro	2016	..	19	..	2	17	27
	2017	..	19	..	2	17	27
	2018	..	20	..	2	18	29
	2019	..	21	..	3	18	29
Netherlands	2016	1,650	3,686	2,420	-106	3,022	178
	2017	1,557	3,217	2,056	-21	2,739	161
	2018	1,481	3,953	2,167	29	3,238	190
	2019	1,566	3,304	2,099	-52	2,823	165
North Macedonia	2016	0	79	2	0	77	37
	2017	0	79	2	1	77	37
	2018	..	80	2	1	78	37
	2019	..	81	2	-1	80	39
Norway	2016	6,852	363	6,347	-83	951	181
	2017	7,380	206	6,459	21	1,106	209
	2018	6,902	283	6,353	35	797	149
	2019	6,394	228	6,389	-28	260	48
Poland	2016	601	2,196	259	12	2,526	66
	2017	545	2,488	448	-2	2,588	68
	2018	605	2,562	545	3	2,619	69
	2019	630	2,613	479	-1	2,765	73
Portugal	2016	240	685	66	7	852	83
	2017	214	595	32	-5	781	76
	2018	205	547	63	-8	697	68
	2019	165	752	82	-27	862	84
Republic of Moldova	2016	..	77	0	-1	78	19
	2017	..	72	0	0	72	18
	2018	..	72	0	1	71	18
	2019	..	66	..	..	66	16
Romania	2016	597	179	297	-1	480	24
	2017	617	233	312	5	532	27
	2018	624	226	324	2	524	27
	2019	625	186	312	0	498	26
Russian Federation	2016	22,259	112	4,877	-46	17,540	121
	2017	27,605	143	4,461	81	23,206	159
	2018	28,730	99	4,945	-5	23,890	164
	2019	29,077	122	4,443	-188	24,945	171

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Serbia	2016	166	183	66	-2	285	40
	2017	127	144	54	-6	224	32
	2018	83	120	51	4	148	21
	2019	94	105	32	-1	168	24
Slovakia	2016	176	49	69	-2	158	29
	2017	177	54	65	-1	167	31
	2018	180	67	82	1	164	30
	2019	164	48	63	3	146	27
Slovenia	2016	..	80	0	0	80	39
	2017	..	88	..	2	86	42
	2018	..	94	..	1	93	45
	2019	..	103	7	2	94	45
Spain	2016	1,541	1,443	462	-40	2,562	55
	2017	1,401	1,296	563	-90	2,224	48
	2018	1,311	1,366	474	55	2,148	46
	2019	1,167	1,242	553	-15	1,871	40
Sweden	2016	481	1,324	685	-26	1,146	117
	2017	421	1,215	619	4	1,013	102
	2018	499	1,121	575	-8	1,053	106
	2019	446	1,233	690	-14	1,003	100
Switzerland	2016	104	71	8	0	167	20
	2017	107	70	14	0	163	19
	2018	133	63	21	0	175	20
	2019	108	81	20	0	169	20
Ukraine	2016	409	1,081	..	27	1,463	33
	2017	411	1,119	..	43	1,487	33
	2018	397	1,317	24	-17	1,707	39
	2019	409	1,466	59	-35	1,851	42
United Kingdom	2016	3,294	904	972	-8	3,234	49
	2017	3,326	1,037	1,050	18	3,295	49
	2018	2,962	1,024	872	-11	3,125	47
	2019	3,191	825	873	-8	3,151	47
<b>Oceania</b>	<b>2016</b>	<b>2,399</b>	<b>580</b>	<b>1,131</b>	<b>81</b>	<b>1,768</b>	<b>44</b>
	<b>2017</b>	<b>2,252</b>	<b>620</b>	<b>1,222</b>	<b>-34</b>	<b>1,683</b>	<b>41</b>
	<b>2018</b>	<b>2,141</b>	<b>531</b>	<b>1,239</b>	<b>72</b>	<b>1,361</b>	<b>33</b>
	<b>2019</b>	<b>2,139</b>	<b>511</b>	<b>1,616</b>	<b>-26</b>	<b>1,061</b>	<b>25</b>
Australia	2016	2,213	470	1,081	83	1,519	63
	2017	2,054	512	1,209	-37	1,394	57
	2018	1,940	425	1,234	71	1,060	43
	2019	1,950	409	1,616	-24	768	30
Fiji	2016	..	29	0	..	29	33
	2017	..	30	1	..	29	33
	2018	..	*35	*1	..	*34	*38
	2019	..	*32	..	..	*32	*36
French Polynesia	2016	..	10	..	..	10	36
	2017	..	10	..	..	10	36
	2018	..	11	..	..	11	40
	2019	..	9	..	..	9	33
Kiribati	2016	..	0	..	..	0	2
	2017	..	0	..	..	0	2
	2018	..	0	..	..	0	*2
	2019	..	0	..	..	0	*2

Table 17

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Marshall Islands	2016	..	0	..	..	0	*3
	2017	..	0	..	..	0	*3
	2018	..	0	..	..	0	*3
	2019	..	0	..	..	0	*3
Nauru	2016	..	0	..	..	0	*1
	2017	..	0	..	..	0	*1
	2018	..	0	..	..	0	*1
	2019	..	0	..	..	0	*1
New Caledonia	2016	..	32	..	-3	34	125
	2017	..	37	..	2	35	127
	2018	..	31	..	0	31	110
	2019	..	21	..	-2	22	79
New Zealand	2016	173	24	50	0	147	32
	2017	181	14	12	..	183	39
	2018	184	12	4	1	191	40
	2019	172	24	..	0	195	41
Niue	2016	..	0	..	..	0	*22
	2017	..	0	..	..	0	*21
	2018	..	0	..	..	0	*22
	2019	..	0	..	..	0	*23
Northern Mariana Islands	2016	..	*4	..	..	*4	*71
	2017	..	*5	..	..	*5	*88
	2018	..	*5	..	..	*5	*88
	2019	..	*5	..	..	*5	*87
Papua New Guinea	2016	13	1	..	..	14	2
	2017	17	*1	..	1	17	2
	2018	17	1	..	..	18	2
	2019	*18	*1	..	..	*19	*2
Samoa	2016	..	6	..	0	6	30
	2017	..	*6	..	0	*6	*31
	2018	..	*6	..	0	*6	*31
	2019	..	*6	..	0	*6	*31
Tonga	2016	..	2	..	..	2	20
	2017	..	2	..	..	2	19
	2018	..	2	..	..	2	21
	2019	..	2	..	..	2	20
Tuvalu	2016	..	0	..	..	0	*12
	2017	..	0	..	..	0	*11
	2018	..	0	..	..	0	*11
	2019	..	0	..	..	0	*10
Vanuatu	2016	..	*1	..	..	*1	*5
	2017	..	*1	..	..	*1	*5
	2018	..	*1	..	..	*1	*4
	2019	..	*1	..	..	*1	*4
Wallis and Futuna Is.	2016	..	0	..	..	0	*21
	2017	..	0	..	..	0	*23
	2018	..	0	..	..	0	*22
	2019	..	0	..	..	0	*22





### Production, trade and supply of motor gasoline

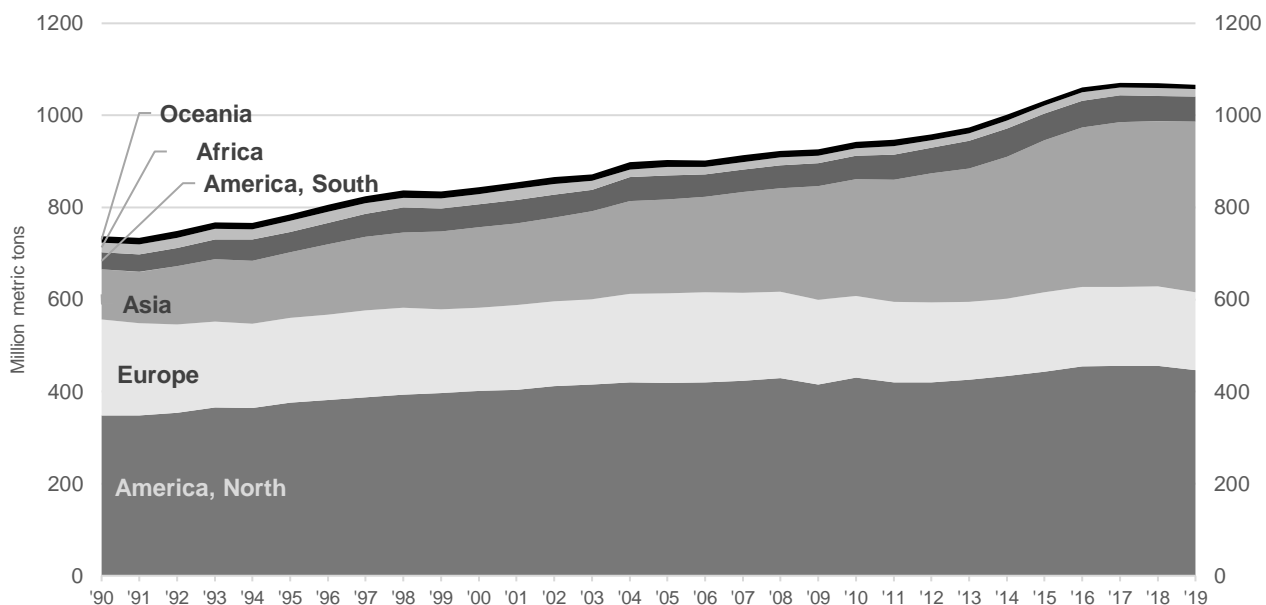
Thousand metric tons and kilograms per capita

#### Table Notes

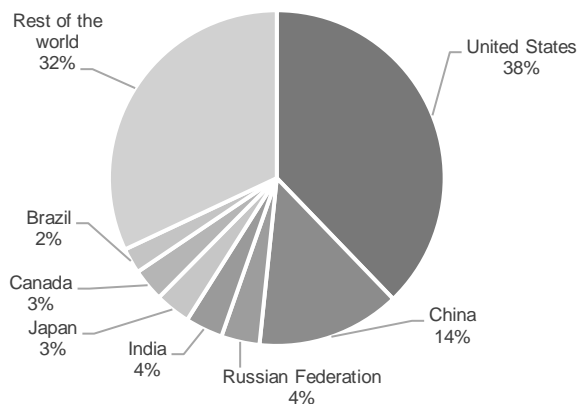
**Production** includes output from refineries and plants, together with quantities from other sources which include any blended biogasoline.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 48: Production of motor gasoline by region, 1990-2019**



**Figure 49: Major motor gasoline producing countries, 2019**



**Figure 50: Major motor gasoline consuming countries, 2019**

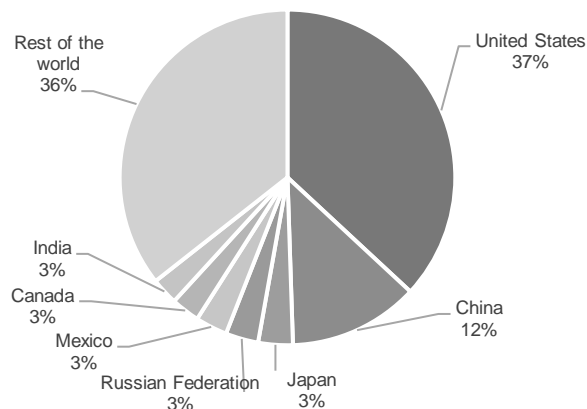


Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2016	1,061,082	227,703	228,167	2,236	1,058,382	142
	2017	1,070,627	229,331	234,437	-2,229	1,067,750	141
	2018	1,069,885	239,920	248,996	-1,675	1,062,485	139
	2019	1,066,978	246,210	236,742	-5,575	1,082,022	140
Africa	2016	19,417	35,585	2,601	827	51,574	43
	2017	17,157	34,957	2,403	-26	49,737	40
	2018	17,802	30,254	2,084	-2,238	48,210	38
	2019	16,563	37,671	1,901	-655	52,989	41
Algeria	2016	2,613	1,608	..	-13	4,234	104
	2017	2,547	1,554	..	19	4,082	99
	2018	3,749	124	..	336	3,537	84
	2019	3,253	578	..	-32	3,863	90
Angola	2016	33	1,030	7	..	1,057	37
	2017	35	958	8	..	985	33
	2018	5	1,794	8	..	1,792	58
	2019	39	1,077	4	..	1,112	35
Benin	2016	..	1,164	..	-2	1,166	107
	2017	..	1,191	..	-19	1,210	108
	2018	..	1,314	..	-2	1,315	115
	2019	..	1,107	..	10	1,097	93
Botswana	2016	..	409	..	..	409	190
	2017	..	440	..	..	440	200
	2018	..	446	..	..	446	198
	2019	..	452	..	..	452	196
Burkina Faso	2016	..	257	..	*-22	278	15
	2017	..	320	..	*-45	365	19
	2018	..	465	..	*51	415	21
	2019	..	376	..	*-63	439	22
Burundi	2016	..	62	..	0	62	6
	2017	..	70	..	..	70	6
	2018	..	96	..	..	96	9
	2019	..	96	..	..	96	8
Cabo Verde	2016	..	9	..	..	9	16
	2017	..	*9	..	..	*9	*17
	2018	..	9	..	..	9	17
	2019	..	*10	..	..	*10	*17
Cameroon	2016	292	248	40	0	500	21
	2017	240	269	39	..	470	19
	2018	218	243	35	..	426	17
	2019	113	364	34	..	443	17
Central African Rep.	2016	..	*20	..	..	*20	*4
	2017	..	*23	..	..	*23	*5
	2018	..	*24	..	..	*24	*5
	2019	..	*25	..	..	*25	*5
Chad	2016	*231	..	*190	..	*41	*3
	2017	*231	..	*190	..	*41	*3
	2018	*235	..	*193	..	*42	*3
	2019	*240	..	*197	..	*43	*3
Comoros	2016	..	*13	..	..	*13	*16
	2017	..	*19	..	..	*19	*24
	2018	..	*22	..	..	*22	*26
	2019	..	*24	..	..	*24	*28

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Congo	2016	56	134	..	..	190	38
	2017	64	88	..	..	151	30
	2018	65	88	..	..	153	29
	2019	65	89	..	..	154	29
Côte d'Ivoire	2016	693	..	230	0	462	19
	2017	*888	..	*309	-17	*596	*24
	2018	771	..	289	..	482	19
	2019	844	..	296	..	549	21
Dem. Rep. of the Congo	2016	..	239	..	..	239	3
	2017	..	257	..	..	257	3
	2018	..	264	..	..	264	3
	2019	..	313	..	..	313	4
Djibouti	2016	..	13	..	..	13	14
	2017	..	14	..	..	14	15
	2018	..	*14	..	..	*14	*14
	2019	..	*14	..	..	*14	*14
Egypt	2016	4,536	2,933	196	..	7,273	77
	2017	4,453	2,765	128	..	7,090	74
	2018	4,827	2,725	299	..	7,253	74
	2019	5,258	2,172	250	..	7,180	72
Equatorial Guinea	2016	..	*62	..	..	*62	*51
	2017	..	*65	..	..	*65	*52
	2018	..	*67	..	..	*67	*51
	2019	..	*70	..	..	*70	*51
Eritrea	2016	..	10	..	..	10	3
	2017	..	10	..	..	10	3
	2018	..	10	..	..	10	3
	2019	..	11	..	..	11	3
Eswatini	2016	..	115	..	..	115	103
	2017	..	123	..	..	123	109
	2018	..	128	..	..	128	113
	2019	..	*135	..	..	*135	*118
Ethiopia	2016	..	367	..	0	367	4
	2017	..	443	..	..	443	4
	2018	..	473	..	..	473	4
	2019	..	524	..	..	524	5
Gabon	2016	76	6	..	..	82	41
	2017	32	44	..	..	76	37
	2018	29	40	..	..	70	33
	2019	30	41	..	..	71	32
Gambia	2016	..	25	..	..	25	12
	2017	..	25	..	..	25	12
	2018	..	24	..	..	24	11
	2019	..	*25	..	..	*25	*11
Ghana	2016	244	1,236	272	0	1,208	42
	2017	7	1,304	184	0	1,126	39
	2018	102	1,326	67	0	1,360	46
	2019	125	1,265	108	-97	1,379	45
Guinea	2016	..	306	..	..	306	26
	2017	..	362	..	..	362	30
	2018	..	279	..	..	279	22
	2019	..	442	..	..	442	35

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Guinea-Bissau	2016	..	*2	..	..	*2	*1
	2017	..	*2	..	..	*2	*1
	2018	..	*2	..	..	*2	*1
	2019	..	*2	..	..	*2	*1
Kenya	2016	0	1,810	537	..	1,273	26
	2017	0	1,701	553	..	1,148	23
	2018	..	1,239	..	..	1,239	24
	2019	..	1,941	2	..	1,938	37
Lesotho	2016	..	94	..	..	94	45
	2017	..	99	..	..	99	47
	2018	..	103	..	..	103	49
	2019	..	103	..	..	103	48
Liberia	2016	..	*148	..	..	*148	*32
	2017	..	*130	..	..	*130	*28
	2018	..	*111	..	..	*111	*23
	2019	..	*113	..	..	*113	*23
Libya	2016	399	3,556	..	..	3,955	609
	2017	470	3,484	..	..	3,953	601
	2018	391	3,559	..	..	3,950	591
	2019	339	3,678	..	..	4,017	593
Madagascar	2016	..	107	..	*8	99	4
	2017	..	115	..	5	111	4
	2018	..	108	..	-11	118	5
	2019	..	135	..	10	126	5
Malawi	2016	..	123	..	..	123	7
	2017	..	137	..	..	137	8
	2018	..	155	..	..	155	9
	2019	..	183	..	..	183	10
Mali	2016	..	*132	10	..	*122	*7
	2017	..	*135	*10	..	*125	*7
	2018	..	*138	*10	..	*128	*7
	2019	..	*140	*10	..	*130	*7
Mauritania	2016	..	*39	..	..	*39	*9
	2017	..	34	..	..	34	8
	2018	..	51	..	*10	41	9
	2019	..	84	..	*33	51	11
Mauritius	2016	..	169	..	3	165	131
	2017	..	172	..	-2	174	138
	2018	..	172	..	-5	177	140
	2019	..	183	..	-10	193	152
Morocco	2016	0	649	1	-24	672	19
	2017	..	650	..	-41	691	19
	2018	..	670	..	-42	711	19
	2019	..	672	..	-43	715	19
Mozambique	2016	..	502	..	*45	457	16
	2017	..	302	..	..	302	11
	2018	..	297	..	..	297	10
	2019	..	289	..	..	289	10
Namibia	2016	..	341	..	..	341	145
	2017	..	318	..	..	318	132
	2018	..	318	..	..	318	130
	2019	..	309	..	..	309	124

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Niger	2016	184	0	90	0	94	5
	2017	228	0	*94	0	134	6
	2018	197	1	101	..	97	4
	2019	175	0	*24	..	151	6
Nigeria	2016	931	13,557	..	851	13,637	73
	2017	675	12,461	..	73	13,063	68
	2018	368	8,028	..	-2,536	10,932	56
	2019	107	15,745	..	-458	16,310	81
Rwanda	2016	..	96	..	..	96	8
	2017	..	99	..	..	99	8
	2018	..	108	..	..	108	9
	2019	..	184	..	..	184	15
Sao Tome and Principe	2016	..	*9	..	..	*9	*43
	2017	..	*9	..	..	*9	*43
	2018	..	*9	..	..	*9	*44
	2019	..	*9	..	..	*9	*44
Senegal	2016	116	68	23	-1	162	11
	2017	97	94	2	..	189	12
	2018	93	134	..	..	227	14
	2019	84	212	..	0	296	18
Seychelles	2016	..	20	..	..	20	211
	2017	..	27	..	..	27	282
	2018	..	41	..	..	41	423
	2019	..	37	..	..	37	378
Sierra Leone	2016	..	154	..	..	154	21
	2017	..	138	..	..	138	18
	2018	..	143	..	..	143	19
	2019	..	148	..	..	148	19
Somalia	2016	..	*34	..	..	*34	*2
	2017	..	*34	..	..	*34	*2
	2018	..	*34	..	..	*34	*2
	2019	..	*34	..	..	*34	*2
South Africa	2016	7,693	1,033	858	..	7,868	140
	2017	5,983	1,565	764	..	6,784	119
	2018	5,668	1,624	979	..	6,313	109
	2019	4,795	1,093	873	..	5,015	86
South Sudan	2016	..	51	..	..	51	5
	2017	..	45	..	..	45	4
	2018	..	46	..	..	46	4
	2019	..	52	..	..	52	5
St. Helena and Depend.	2016	..	1	..	..	1	114
	2017	..	1	..	..	1	90
	2018	..	1	..	..	1	120
	2019	..	1	..	..	1	135
Sudan	2016	1,196	..	147	..	1,050	26
	2017	1,063	267	122	..	1,209	30
	2018	925	349	103	..	1,171	28
	2019	*937	*353	*104	..	*1,186	*28
Togo	2016	..	121	..	-4	125	17
	2017	..	125	..	-4	129	17
	2018	..	155	..	-6	161	20
	2019	..	155	..	..	155	19

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Tunisia	2016	29	516	..	-15	560	50
	2017	21	530	..	6	545	48
	2018	23	650	..	-35	708	61
	2019	22	664	..	-5	690	59
Uganda	2016	..	601	..	..	601	15
	2017	..	662	..	..	662	16
	2018	..	689	..	..	689	16
	2019	..	759	..	..	759	17
United Rep. of Tanzania	2016	..	813	..	..	813	15
	2017	..	752	..	..	752	14
	2018	..	753	..	..	753	13
	2019	..	657	..	..	657	11
Zambia	2016	95	248	..	..	343	21
	2017	124	188	..	..	312	18
	2018	136	137	..	..	273	16
	2019	138	191	..	..	329	18
Zimbabwe	2016	..	328	..	..	328	23
	2017	..	328	..	..	328	23
	2018	..	454	..	..	454	31
	2019	..	336	..	..	336	23
<b>America, North</b>	<b>2016</b>	<b>455,018</b>	<b>63,814</b>	<b>44,388</b>	<b>792</b>	<b>473,652</b>	<b>827</b>
	<b>2017</b>	<b>455,992</b>	<b>62,106</b>	<b>46,525</b>	<b>122</b>	<b>471,450</b>	<b>816</b>
	<b>2018</b>	<b>455,731</b>	<b>67,197</b>	<b>49,677</b>	<b>968</b>	<b>472,283</b>	<b>811</b>
	<b>2019</b>	<b>446,237</b>	<b>73,094</b>	<b>47,384</b>	<b>143</b>	<b>471,804</b>	<b>804</b>
Anguilla	2016	..	*7	..	..	*7	*457
	2017	..	*6	..	..	*6	*432
	2018	..	*6	..	..	*6	*434
	2019	..	*6	..	..	*6	*430
Antigua and Barbuda	2016	..	*44	*3	..	*41	*434
	2017	..	*44	*3	..	*41	*430
	2018	..	*45	*3	..	*42	*436
	2019	..	*45	*3	..	*42	*432
Aruba	2016	..	*63	..	..	*63	*598
	2017	..	*65	..	..	*65	*617
	2018	..	*66	..	..	*66	*620
	2019	..	*66	..	..	*66	*623
Bahamas	2016	..	112	0	..	112	295
	2017	..	173	*1	..	172	451
	2018	..	322	..	..	322	834
	2019	..	250	..	..	250	642
Barbados	2016	..	95	..	5	90	316
	2017	..	90	..	-1	90	315
	2018	..	87	..	..	87	302
	2019	..	86	..	-4	90	312
Belize	2016	..	76	..	..	76	206
	2017	..	75	..	..	75	199
	2018	..	78	..	..	78	203
	2019	..	85	..	..	85	217
Bermuda	2016	..	22	..	0	22	350
	2017	..	18	..	0	18	289
	2018	..	21	..	0	21	342
	2019	..	14	..	0	14	221

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bonaire, St Eustatius, Saba	2016	..	*1	..	..	*1	*60
	2017	..	*1	..	..	*1	*58
	2018	..	*2	..	..	*2	*59
	2019	..	*2	..	..	*2	*58
British Virgin Islands	2016	..	*15	..	..	*15	*494
	2017	..	*12	..	..	*12	*392
	2018	..	*11	..	..	*11	*369
	2019	..	*12	..	..	*12	*383
Canada	2016	33,983	3,785	7,301	-81	30,548	840
	2017	35,699	3,477	8,144	-19	31,051	845
	2018	33,343	4,011	6,588	78	30,688	828
	2019	33,605	3,654	7,609	-219	29,869	798
Cayman Islands	2016	..	37	..	..	37	591
	2017	..	40	..	..	40	631
	2018	..	48	..	..	48	743
	2019	..	50	..	..	50	771
Costa Rica	2016	..	927	..	-6	933	191
	2017	..	997	..	45	953	192
	2018	..	913	..	-38	951	190
	2019	..	1,017	..	28	989	196
Cuba	2016	185	299	*246	..	238	21
	2017	139	169	*45	..	262	23
	2018	212	254	*212	..	254	22
	2019	199	236	*203	..	232	20
Curaçao	2016	1,788	71	1,788	..	71	441
	2017	1,181	71	1,181	..	71	439
	2018	843	70	843	..	70	431
	2019	0	67	0	..	67	408
Dominica	2016	..	*10	..	0	*11	*148
	2017	..	*10	..	0	*10	*141
	2018	..	*10	..	0	*10	*145
	2019	..	*10	..	0	*11	*147
Dominican Republic	2016	229	819	..	7	1,041	100
	2017	189	866	..	1	1,055	100
	2018	256	908	..	-20	1,184	111
	2019	251	940	..	-21	1,212	113
El Salvador	2016	..	591	..	..	591	93
	2017	..	641	..	..	641	100
	2018	..	660	..	..	660	103
	2019	..	730	..	..	730	113
Greenland	2016	..	15	..	-1	16	287
	2017	..	16	..	-1	16	288
	2018	..	*14	..	..	*14	*240
	2019	..	*14	..	..	*14	*246
Grenada	2016	..	24	..	0	24	217
	2017	..	25	..	0	25	224
	2018	..	26	..	-2	28	254
	2019	..	28	..	1	27	245
Guatemala	2016	..	1,387	106	-17	1,297	78
	2017	..	1,605	51	27	1,527	90
	2018	..	1,629	33	-3	1,599	93
	2019	..	1,869	39	55	1,776	101



Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Haiti	2016	..	222	..	..	222	20
	2017	..	259	..	..	259	24
	2018	..	321	..	..	321	29
	2019	..	273	..	..	273	24
Honduras	2016	..	632	..	1	631	68
	2017	..	776	..	15	761	81
	2018	..	814	1	18	795	83
	2019	..	869	14	..	855	88
Jamaica	2016	133	397	..	-6	536	184
	2017	143	379	..	7	515	176
	2018	119	378	..	..	497	169
	2019	154	373	..	3	524	178
Mexico	2016	13,563	20,575	..	280	33,858	275
	2017	10,715	21,695	..	10	32,400	260
	2018	8,654	24,017	..	157	32,514	258
	2019	8,213	24,377	..	-692	33,282	261
Montserrat	2016	..	3	..	..	3	583
	2017	..	3	..	..	3	581
	2018	..	4	..	..	4	781
	2019	..	3	..	..	3	581
Nicaragua	2016	91	240	..	1	330	52
	2017	101	252	..	0	353	55
	2018	96	227	..	..	323	50
	2019	108	230	..	0	338	52
Panama	2016	..	874	..	-26	900	223
	2017	..	912	..	-47	959	234
	2018	..	903	..	-30	933	223
	2019	..	945	..	-11	956	225
Sint Maarten (Dutch part)	2016	..	*14	..	..	*14	*345
	2017	..	*14	..	..	*14	*333
	2018	..	*14	..	..	*14	*322
	2019	..	*14	..	..	*14	*321
St. Kitts-Nevis	2016	..	*18	..	..	*18	*341
	2017	..	*18	..	..	*18	*342
	2018	..	*18	..	..	*18	*343
	2019	..	*19	..	..	*19	*350
St. Lucia	2016	..	*42	..	..	*42	*233
	2017	..	*43	..	..	*43	*240
	2018	..	*42	..	..	*42	*233
	2019	..	*44	..	..	*44	*239
St. Pierre-Miquelon	2016	..	*4	..	..	*4	*657
	2017	..	*4	..	..	*4	*663
	2018	..	*3	..	..	*3	*582
	2019	..	*4	..	..	*4	*636
St. Vincent-Grenadines	2016	..	26	..	..	26	241
	2017	..	26	..	..	26	237
	2018	..	30	..	..	30	271
	2019	..	27	..	..	27	240
Trinidad and Tobago	2016	2,453	0	1,972	-11	492	357
	2017	2,007	0	1,496	-7	518	375
	2018	1,823	..	1,395	20	408	294
	2019	408	813	754	..	466	334

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Turks and Caicos Islands	2016	..	*33	..	..	*33	*892
	2017	..	*35	..	..	*35	*948
	2018	..	*36	..	..	*36	*953
	2019	..	*36	..	..	*36	*948
United States	2016	402,592	32,336	32,972	646	401,310	1,242
	2017	405,819	29,288	35,605	91	399,411	1,229
	2018	410,384	31,210	40,602	788	400,204	1,224
	2019	403,298	35,888	38,762	1,003	399,421	1,214
<b>America, South</b>	<b>2016</b>	<b>57,743</b>	<b>9,952</b>	<b>3,426</b>	<b>-3</b>	<b>64,272</b>	<b>155</b>
	<b>2017</b>	<b>58,901</b>	<b>11,526</b>	<b>3,372</b>	<b>-197</b>	<b>67,251</b>	<b>160</b>
	<b>2018</b>	<b>54,653</b>	<b>10,190</b>	<b>3,992</b>	<b>-184</b>	<b>61,035</b>	<b>144</b>
	<b>2019</b>	<b>54,481</b>	<b>11,001</b>	<b>4,221</b>	<b>256</b>	<b>61,005</b>	<b>143</b>
Argentina	2016	6,946	183	..	61	7,068	162
	2017	7,451	308	..	-34	7,793	177
	2018	7,457	457	*788	-47	7,173	162
	2019	7,331	385	*811	-29	6,934	155
Bolivia (Plur. State of)	2016	1,055	150	..	-75	1,280	116
	2017	1,035	242	..	-80	1,357	121
	2018	993	322	..	-65	1,380	122
	2019	895	486	..	8	1,373	119
Brazil	2016	28,788	2,821	534	33	31,042	151
	2017	29,411	3,323	349	49	32,336	156
	2018	26,295	2,393	1,029	-142	27,801	133
	2019	26,182	3,574	1,491	258	28,007	133
Chile	2016	2,974	455	22	-2	3,409	187
	2017	3,055	526	40	44	3,497	189
	2018	2,964	549	28	2	3,483	186
	2019	3,319	271	69	16	3,505	185
Colombia	2016	2,997	1,678	0	..	4,675	97
	2017	4,336	1,583	689	..	5,230	107
	2018	4,458	1,190	91	..	5,557	112
	2019	4,691	1,167	33	..	5,824	116
Ecuador	2016	1,599	1,877	61	12	3,403	206
	2017	1,535	1,923	0	-31	3,489	208
	2018	1,513	1,853	..	13	3,352	196
	2019	1,387	2,141	4	12	3,513	202
Falkland Is. (Malvinas)	2016	..	0	..	..	0	67
	2017	..	0	..	..	0	67
	2018	..	0	..	..	0	60
	2019	..	0	..	..	0	46
Guyana	2016	..	153	..	3	150	195
	2017	..	140	..	-2	141	182
	2018	..	155	..	-4	159	204
	2019	..	174	..	-3	177	226
Paraguay	2016	216	622	..	6	832	123
	2017	223	686	..	-64	973	142
	2018	244	814	..	-14	1,071	154
	2019	287	756	..	-29	1,071	152
Peru	2016	3,420	800	2,142	-40	2,118	68
	2017	3,463	892	2,289	-66	2,132	68
	2018	3,331	971	2,051	58	2,193	69
	2019	3,431	770	1,808	46	2,348	72

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Suriname	2016	34	175	3	..	206	365
	2017	64	96	5	..	155	271
	2018	66	66	5	..	127	220
	2019	61	112	..	..	173	298
Uruguay	2016	598	14	0	-1	612	179
	2017	203	430	0	-12	645	188
	2018	588	11	0	14	586	170
	2019	611	0	6	-24	629	182
Venezuela (Bolivar. Rep.)	2016	9,116	1,025	664	0	9,477	317
	2017	8,125	1,378	..	0	9,503	323
	2018	6,745	1,408	..	..	8,153	282
	2019	6,286	1,165	..	..	7,451	261
<b>Asia</b>	<b>2016</b>	<b>346,448</b>	<b>78,799</b>	<b>84,514</b>	<b>-325</b>	<b>341,058</b>	<b>76</b>
	<b>2017</b>	<b>357,235</b>	<b>81,913</b>	<b>87,325</b>	<b>-1,738</b>	<b>353,560</b>	<b>78</b>
	<b>2018</b>	<b>359,251</b>	<b>97,244</b>	<b>99,364</b>	<b>317</b>	<b>356,814</b>	<b>78</b>
	<b>2019</b>	<b>370,498</b>	<b>88,559</b>	<b>89,042</b>	<b>-5,540</b>	<b>375,554</b>	<b>82</b>
Afghanistan	2016	*43	459	..	..	502	14
	2017	*44	535	..	..	579	16
	2018	*68	705	..	..	773	21
	2019	*44	795	..	..	839	22
Armenia	2016	..	141	..	..	141	48
	2017	..	142	..	..	142	48
	2018	..	139	..	..	139	47
	2019	..	175	..	..	175	59
Azerbaijan	2016	1,153	81	4	-35	1,265	130
	2017	1,215	130	7	31	1,307	133
	2018	1,186	131	..	19	1,298	130
	2019	1,161	170	..	-26	1,357	135
Bahrain	2016	784	..	4	-1	781	548
	2017	744	..	0	-53	797	533
	2018	741	..	0	-102	843	537
	2019	755	..	..	-107	862	525
Bangladesh	2016	133	151	..	..	284	2
	2017	125	33	..	..	158	1
	2018	195	33	..	..	227	1
	2019	229	116	..	..	344	2
Bhutan	2016	..	27	..	..	27	36
	2017	..	29	..	..	29	39
	2018	..	35	..	..	35	46
	2019	..	38	..	..	38	49
Brunei Darussalam	2016	92	181	..	-5	278	662
	2017	73	213	..	8	278	655
	2018	133	141	..	-5	279	650
	2019	325	181	226	-5	285	659
Cambodia	2016	..	506	..	..	506	32
	2017	..	576	..	..	576	36
	2018	..	624	..	..	624	38
	2019	..	668	..	..	668	41
China	2016	129,320	208	9,693	1,542	118,294	84
	2017	132,762	16	10,514	260	122,005	86
	2018	142,647	445	12,879	-140	130,353	91
	2019	147,816	333	16,371	-4,133	135,912	95

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
China, Hong Kong SAR	2016	..	506	8	30	467	64
	2017	..	475	11	1	463	63
	2018	..	482	12	11	459	62
	2019	..	453	12	-19	460	62
China, Macao SAR	2016	..	76	..	2	74	121
	2017	..	77	..	1	76	122
	2018	..	83	..	1	82	130
	2019	..	79	..	-1	80	125
Cyprus	2016	..	356	..	4	352	301
	2017	..	350	..	0	350	297
	2018	..	339	..	-5	345	290
	2019	..	335	..	1	334	279
Georgia	2016	7	576	0	-14	598	149
	2017	2	534	1	-2	537	134
	2018	1	548	1	8	540	135
	2019	1	544	0	-5	550	138
India	2016	36,593	476	15,417	0	21,652	16
	2017	37,784	174	14,035	..	23,923	18
	2018	38,039	670	12,885	..	25,824	19
	2019	38,616	2,146	12,710	..	28,052	21
Indonesia	2016	10,297	12,500	52	*-716	23,461	90
	2017	9,473	13,704	68	*-603	23,712	90
	2018	7,746	14,093	76	*28	21,735	81
	2019	11,310	14,618	86	26	25,816	95
Iran (Islamic Rep. of)	2016	16,798	2,270	..	..	19,069	240
	2017	22,130	3,271	..	..	25,401	315
	2018	16,917	4,516	..	..	21,433	262
	2019	18,169	3,876	..	..	22,044	266
Iraq	2016	2,117	2,145	..	0	4,262	116
	2017	2,483	2,396	..	..	4,879	130
	2018	2,832	2,526	..	..	5,358	139
	2019	2,553	2,716	..	..	5,269	134
Israel	2016	2,945	674	558	-33	3,094	382
	2017	2,766	645	487	10	2,914	353
	2018	3,055	843	822	0	3,076	367
	2019	2,946	654	649	-20	2,970	349
Japan	2016	40,099	622	2,285	18	38,418	301
	2017	39,795	902	2,771	-77	38,004	298
	2018	38,117	1,576	2,446	25	37,222	293
	2019	36,640	1,820	2,298	100	36,063	284
Jordan	2016	583	832	..	*-31	1,446	151
	2017	557	923	..	48	1,432	146
	2018	483	964	..	*37	1,410	141
	2019	507	1,075	..	..	1,582	157
Kazakhstan	2016	2,939	1,134	1	-397	4,469	251
	2017	3,055	1,073	2	-208	4,334	240
	2018	3,955	595	20	23	4,507	246
	2019	4,533	19	54	-65	4,563	246
Korea, Dem.Ppl's.Rep.	2016	178	17	..	..	195	8
	2017	178	14	..	..	192	8
	2018	178	14	..	..	192	8
	2019	178	17	..	..	195	8

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Korea, Republic of	2016	17,266	161	8,911	61	8,455	166
	2017	18,343	130	9,611	12	8,850	173
	2018	19,601	20	10,291	216	9,114	178
	2019	19,722	15	10,285	-152	9,604	187
Kuwait	2016	2,405	..	609	-1,577	3,373	852
	2017	2,113	..	522	-1,614	3,205	790
	2018	2,097	..	677	-1,564	2,984	721
	2019	2,587	..	339	-1,017	3,265	776
Kyrgyzstan	2016	171	719	7	-42	925	152
	2017	235	468	7	5	691	112
	2018	219	632	28	31	792	126
	2019	103	485	17	-6	577	90
Lao People's Dem. Rep.	2016	..	190	..	..	190	28
	2017	..	190	..	..	190	27
	2018	..	182	..	..	182	26
	2019	..	*185	..	..	*185	*26
Lebanon	2016	..	2,026	..	..	2,026	302
	2017	..	2,097	..	..	2,097	307
	2018	..	1,983	..	..	1,983	289
	2019	..	2,075	..	..	2,075	303
Malaysia	2016	4,801	8,139	436	-261	12,765	416
	2017	7,855	4,901	268	-47	12,535	403
	2018	5,258	10,130	2,941	9	12,438	395
	2019	4,979	7,662	813	*-249	12,078	378
Maldives	2016	..	48	..	..	48	101
	2017	..	58	..	..	58	116
	2018	..	69	..	..	69	133
	2019	..	85	..	..	85	160
Mongolia	2016	..	385	..	..	385	126
	2017	..	411	..	..	411	132
	2018	..	435	..	..	435	137
	2019	..	542	..	..	542	168
Myanmar	2016	153	1,154	..	12	1,295	24
	2017	145	1,091	..	-141	1,377	26
	2018	70	1,951	..	-103	2,124	40
	2019	52	1,853	..	..	1,905	35
Nepal	2016	..	289	..	..	289	11
	2017	..	346	..	..	346	13
	2018	..	402	..	..	402	14
	2019	..	363	..	..	363	13
Oman	2016	3,018	0	0	163	2,855	637
	2017	2,990	57	167	4	2,876	616
	2018	3,185	0	410	0	2,775	574
	2019	3,311	0	550	0	2,761	555
Other Asia	2016	9,248	124	4,497	146	4,729	200
	2017	8,463	126	4,201	-244	4,632	196
	2018	8,537	99	3,962	64	4,610	194
	2019	8,141	183	3,515	-29	4,839	204
Pakistan	2016	1,839	5,156	0	0	6,995	34
	2017	2,212	5,235	..	..	7,447	36
	2018	2,383	5,591	..	..	7,974	38
	2019	2,183	6,560	..	..	8,744	40

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Philippines	2016	2,197	1,822	229	-33	3,824	37
	2017	2,153	1,991	85	80	3,979	38
	2018	2,435	2,205	230	169	4,240	40
	2019	1,689	2,172	46	-54	3,870	36
Qatar	2016	1,963	..	296	..	1,667	628
	2017	1,937	..	111	..	1,826	670
	2018	1,770	147	129	..	1,788	643
	2019	1,671	154	96	..	1,729	611
Saudi Arabia	2016	24,065	8,600	9,054	322	23,289	718
	2017	23,949	8,488	10,314	-170	22,293	673
	2018	23,418	14,114	17,738	..	19,794	587
	2019	22,772	*3,962	*4,267	*-367	22,834	666
Singapore	2016	9,096	15,964	24,650	*-200	610	108
	2017	9,108	16,683	25,567	*-400	624	109
	2018	8,491	15,727	25,705	192	-1,679	-292
	2019	8,122	15,663	26,554	-356	-2,413	-416
Sri Lanka	2016	166	957	..	-341	1,463	70
	2017	165	1,097	..	-227	1,489	70
	2018	165	1,128	..	7	1,286	61
	2019	186	1,160	..	-31	1,377	65
State of Palestine	2016	..	236	..	0	236	51
	2017	..	233	..	..	233	49
	2018	..	226	..	0	226	47
	2019	..	226	..	..	226	45
Syrian Arab Republic	2016	581	395	..	..	976	56
	2017	645	442	..	..	1,087	64
	2018	604	415	..	..	1,019	60
	2019	522	360	..	..	882	52
Tajikistan	2016	1	194	..	..	195	22
	2017	1	177	..	..	177	20
	2018	1	173	..	..	174	19
	2019	0	171	..	..	171	18
Thailand	2016	7,764	1,131	1,022	1,060	6,813	99
	2017	8,090	1,287	1,180	1,172	7,025	102
	2018	8,398	1,143	1,246	1,101	7,194	104
	2019	7,604	1,636	893	1,046	7,302	105
Timor-Leste	2016	..	27	..	..	27	22
	2017	..	29	..	..	29	24
	2018	..	30	..	..	30	24
	2019	..	35	..	..	35	27
Turkey	2016	5,175	..	2,890	45	2,240	28
	2017	5,444	..	3,172	-32	2,304	28
	2018	4,767	..	2,442	57	2,268	28
	2019	5,374	..	2,974	-19	2,419	29
Turkmenistan	2016	2,610	..	1,105	..	1,505	266
	2017	2,610	..	1,105	..	1,505	261
	2018	2,610	..	1,105	..	1,505	257
	2019	2,610	..	1,105	..	1,505	253
United Arab Emirates	2016	5,863	4,004	2,571	..	7,296	779
	2017	3,819	6,390	2,862	373	6,974	735
	2018	3,578	8,308	3,110	..	8,776	911
	2019	6,412	9,561	4,980	..	10,993	1,125

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Uzbekistan	2016	1,134	0	0	3	1,131	36
	2017	1,112	0	6	35	1,071	34
	2018	1,147	0	0	103	1,044	32
	2019	1,016	4	0	-51	1,072	32
Viet Nam	2016	2,777	2,488	215	-47	5,097	54
	2017	2,565	3,180	252	42	5,451	58
	2018	4,109	2,053	208	135	5,819	61
	2019	5,470	2,003	202	..	7,271	75
Yemen	2016	74	655	..	..	729	27
	2017	97	595	..	..	692	25
	2018	116	581	..	..	697	24
	2019	186	614	..	..	800	27
<b>Europe</b>	<b>2016</b>	<b>172,211</b>	<b>33,272</b>	<b>93,157</b>	<b>818</b>	<b>111,507</b>	<b>149</b>
	<b>2017</b>	<b>171,729</b>	<b>32,274</b>	<b>94,583</b>	<b>-172</b>	<b>109,591</b>	<b>147</b>
	<b>2018</b>	<b>172,488</b>	<b>28,932</b>	<b>93,723</b>	<b>-540</b>	<b>108,236</b>	<b>145</b>
	<b>2019</b>	<b>169,337</b>	<b>30,014</b>	<b>94,016</b>	<b>106</b>	<b>105,230</b>	<b>140</b>
Albania	2016	..	133	..	26	107	37
	2017	..	148	..	42	106	37
	2018	..	133	..	27	105	36
	2019	0	136	..	27	110	38
Andorra	2016	..	19	..	..	19	246
	2017	..	19	..	..	19	253
	2018	..	21	..	..	21	267
	2019	..	22	..	..	22	286
Austria	2016	1,759	799	873	37	1,649	189
	2017	1,781	749	864	13	1,654	188
	2018	2,029	710	1,059	-48	1,728	194
	2019	2,074	652	978	56	1,692	189
Belarus	2016	3,573	206	2,621	14	1,144	121
	2017	3,481	108	2,411	11	1,167	123
	2018	3,335	20	2,163	-7	1,199	127
	2019	2,900	4	1,662	-3	1,245	132
Belgium	2016	4,860	1,440	5,136	-15	1,179	104
	2017	4,748	890	4,687	-37	988	87
	2018	4,173	1,541	4,269	99	1,347	117
	2019	4,435	1,280	4,726	-52	1,041	90
Bosnia and Herzegovina	2016	140	132	78	-7	201	59
	2017	142	118	60	10	190	57
	2018	116	118	59	-7	182	55
	2019	18	153	10	-15	176	53
Bulgaria	2016	1,785	215	1,524	7	469	66
	2017	1,848	269	1,646	-9	480	68
	2018	1,508	216	1,262	-12	474	67
	2019	1,778	269	1,601	-23	468	67
Croatia	2016	864	194	517	7	534	127
	2017	1,005	160	643	9	513	123
	2018	895	134	479	51	499	120
	2019	712	155	425	-36	477	115
Czechia	2016	1,265	805	403	8	1,659	156
	2017	1,638	583	624	-4	1,601	150
	2018	1,519	716	567	64	1,604	150
	2019	1,624	560	596	-26	1,614	151

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Denmark	2016	2,167	494	1,087	-20	1,594	279
	2017	2,309	390	1,222	-25	1,503	262
	2018	2,257	428	1,185	-32	1,532	266
	2019	2,293	462	1,280	-7	1,481	257
Estonia	2016	..	482	256	-25	251	191
	2017	..	455	167	26	262	198
	2018	..	513	266	-22	269	203
	2019	..	414	113	27	274	207
Faeroe Islands	2016	..	*11	..	..	*11	*221
	2017	..	*11	..	..	*11	*225
	2018	..	*11	..	..	*11	*225
	2019	..	*11	..	..	*11	*229
Finland	2016	4,210	594	2,991	-27	1,840	335
	2017	4,531	606	3,123	12	2,002	363
	2018	4,570	579	3,005	21	2,123	384
	2019	4,582	614	3,337	-32	1,891	342
France	2016	11,913	1,220	4,607	110	8,416	126
	2017	12,085	1,467	4,349	13	9,190	137
	2018	11,265	1,361	3,167	-58	9,517	142
	2019	10,270	1,486	2,619	-9	9,146	136
Germany	2016	20,871	1,513	5,051	89	17,244	210
	2017	20,975	2,158	5,719	-210	17,624	213
	2018	21,923	2,440	5,052	-16	19,327	233
	2019	21,427	3,163	4,853	127	19,610	235
Gibraltar	2016	..	37	..	..	37	1,097
	2017	..	40	..	..	40	1,198
	2018	..	44	..	..	44	1,299
	2019	..	47	..	..	47	1,388
Greece	2016	5,169	560	3,398	197	2,134	201
	2017	5,291	321	3,935	40	1,637	155
	2018	5,351	352	4,499	-136	1,341	127
	2019	5,048	627	4,074	8	1,593	152
Hungary	2016	1,139	572	331	58	1,322	136
	2017	1,080	598	318	16	1,344	138
	2018	1,188	508	258	29	1,409	145
	2019	1,167	795	431	21	1,510	156
Iceland	2016	5	136	..	-1	142	427
	2017	5	138	..	0	142	426
	2018	6	134	..	5	134	399
	2019	6	122	..	0	129	380
Ireland	2016	589	810	350	9	1,040	222
	2017	589	893	486	88	908	191
	2018	629	534	342	9	811	168
	2019	535	519	407	-127	774	159
Italy	2016	15,144	352	8,131	-138	7,503	124
	2017	15,717	140	8,445	-9	7,421	122
	2018	15,639	353	8,483	-142	7,651	126
	2019	16,413	405	8,481	63	8,274	137
Kosovo	2016	..	69	..	..	69	39
	2017	..	63	..	..	63	35
	2018	..	59	..	..	59	33
	2019	..	59	..	..	59	33



Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Latvia	2016	13	234	41	4	202	102
	2017	12	213	37	-4	192	99
	2018	13	201	26	0	188	97
	2019	11	193	24	0	180	94
Lithuania	2016	2,627	67	2,532	-2	164	57
	2017	2,752	65	2,672	-21	167	59
	2018	2,575	47	2,438	-9	193	69
	2019	2,489	46	2,326	3	207	75
Luxembourg	2016	..	295	0	4	291	502
	2017	..	303	..	1	303	512
	2018	..	332	..	-3	335	554
	2019	..	359	..	-1	360	585
Malta	2016	..	70	..	-7	77	177
	2017	..	84	..	6	78	178
	2018	..	79	..	1	78	179
	2019	..	76	..	-7	83	189
Montenegro	2016	..	43	8	-2	37	59
	2017	..	41	7	-3	37	59
	2018	..	39	7	-5	37	59
	2019	..	36	2	-3	37	59
Netherlands	2016	4,105	9,924	19,601	30	-5,601	-330
	2017	3,176	10,787	20,282	-64	-6,254	-367
	2018	4,219	7,636	23,200	-257	-11,089	-650
	2019	4,314	7,221	25,751	-133	-14,082	-824
North Macedonia	2016	0	107	3	0	104	50
	2017	0	108	4	1	103	49
	2018	..	104	2	1	101	49
	2019	..	120	17	0	103	50
Norway	2016	3,815	383	3,339	-7	866	165
	2017	4,647	351	3,614	-32	1,416	267
	2018	4,477	390	3,885	4	978	183
	2019	3,688	508	3,713	44	439	82
Poland	2016	4,207	345	509	20	4,023	106
	2017	4,164	481	221	35	4,389	116
	2018	4,451	468	367	6	4,546	120
	2019	4,577	423	246	38	4,715	124
Portugal	2016	2,653	167	1,742	18	1,060	103
	2017	2,753	124	1,885	-48	1,040	101
	2018	2,508	149	1,644	2	1,012	99
	2019	2,408	261	1,585	11	1,073	105
Republic of Moldova	2016	..	166	..	-1	167	41
	2017	..	164	..	0	164	40
	2018	..	169	..	-1	170	42
	2019	..	178	..	2	176	44
Romania	2016	3,405	127	2,124	54	1,354	68
	2017	3,285	109	1,930	61	1,403	71
	2018	3,381	104	2,165	-58	1,378	71
	2019	3,485	70	2,187	-14	1,381	71
Russian Federation	2016	40,004	171	5,216	232	34,727	239
	2017	38,027	32	4,415	182	33,462	230
	2018	39,053	31	4,210	26	34,849	239
	2019	39,494	1	5,183	107	34,205	234

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Serbia	2016	482	51	125	-6	414	59
	2017	499	78	143	14	420	60
	2018	516	68	150	11	423	60
	2019	445	77	111	-20	431	62
Slovakia	2016	1,535	258	1,157	23	613	113
	2017	1,456	263	1,136	-37	620	114
	2018	1,420	207	1,025	23	579	106
	2019	1,193	217	838	8	564	103
Slovenia	2016	..	603	168	11	424	204
	2017	..	643	220	10	414	199
	2018	..	610	198	-10	422	203
	2019	..	658	260	-3	401	193
Spain	2016	9,765	160	4,442	158	5,325	114
	2017	9,318	417	4,514	-108	5,329	114
	2018	9,451	441	4,347	-129	5,674	122
	2019	9,289	1,438	4,740	288	5,699	122
Sweden	2016	5,116	1,877	3,647	-16	3,362	342
	2017	4,909	1,504	3,830	-161	2,744	277
	2018	5,278	785	3,650	40	2,373	238
	2019	3,917	612	1,974	-46	2,601	259
Switzerland	2016	720	1,724	18	-19	2,445	292
	2017	689	1,639	2	-37	2,363	279
	2018	689	1,587	2	-72	2,346	275
	2019	649	1,690	1	-3	2,341	272
Ukraine	2016	*365	*1,806	0	0	*2,171	*49
	2017	802	1,268	7	-1	2,064	46
	2018	*874	1,138	..	23	1,989	45
	2019	*1,034	1,042	0	-30	2,105	48
United Kingdom	2016	17,946	3,901	11,132	-5	10,720	162
	2017	18,014	3,273	10,966	49	10,271	154
	2018	17,179	3,424	10,292	42	10,270	153
	2019	17,061	2,834	9,464	-134	10,565	156
<b>Oceania</b>	<b>2016</b>	<b>10,246</b>	<b>6,280</b>	<b>80</b>	<b>128</b>	<b>16,318</b>	<b>404</b>
	<b>2017</b>	<b>9,613</b>	<b>6,557</b>	<b>228</b>	<b>-219</b>	<b>16,160</b>	<b>394</b>
	<b>2018</b>	<b>9,961</b>	<b>6,103</b>	<b>156</b>	<b>2</b>	<b>15,906</b>	<b>383</b>
	<b>2019</b>	<b>9,863</b>	<b>5,871</b>	<b>179</b>	<b>114</b>	<b>15,441</b>	<b>367</b>
American Samoa	2016	..	*13	..	..	*13	*240
	2017	..	*13	..	..	*13	*241
	2018	..	*13	..	..	*13	*242
	2019	..	*13	..	..	*13	*242
Australia	2016	8,757	4,854	54	124	13,433	554
	2017	8,281	5,081	162	-131	13,331	542
	2018	8,587	4,662	112	64	13,073	525
	2019	8,370	4,434	153	33	12,619	501
Cook Islands	2016	..	*6	..	..	*6	*331
	2017	..	*7	..	..	*7	*371
	2018	..	*7	..	..	*7	*371
	2019	..	*7	..	..	*7	*376
Fiji	2016	..	114	26	..	88	101
	2017	..	124	24	..	101	115
	2018	..	*150	*22	..	*128	*145
	2019	..	*153	*26	..	*127	*143

Table 18

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
French Polynesia	2016	..	49	..	*-4	53	192
	2017	..	50	..	*-1	51	186
	2018	..	54	..	*1	53	192
	2019	..	53	..	-2	55	196
Kiribati	2016	..	5	..	..	5	46
	2017	..	7	..	..	7	61
	2018	..	*7	..	..	*7	*61
	2019	..	*7	..	..	*7	*61
Marshall Islands	2016	..	*12	..	..	*12	*199
	2017	..	*12	..	..	*12	*202
	2018	..	*12	..	..	*12	*204
	2019	..	*12	..	..	*12	*204
Micronesia (Fed. States of)	2016	..	*18	..	..	*18	*162
	2017	..	*18	..	..	*18	*161
	2018	..	*18	..	..	*18	*162
	2019	..	*18	..	..	*18	*162
Nauru	2016	..	3	..	..	3	306
	2017	..	3	..	..	3	284
	2018	..	*3	..	..	*3	*273
	2019	..	*3	..	..	*3	*265
New Caledonia	2016	..	76	..	-5	81	295
	2017	..	75	..	4	72	259
	2018	..	74	..	*3	71	254
	2019	..	66	..	-6	72	253
New Zealand	2016	1,489	982	..	8	2,463	529
	2017	1,332	1,002	42	-77	2,369	504
	2018	1,374	984	22	-49	2,385	503
	2019	1,493	953	..	86	2,360	493
Niue	2016	..	*1	..	..	*1	*453
	2017	..	*1	..	..	*1	*440
	2018	..	*1	..	..	*1	*453
	2019	..	*1	..	..	*1	*465
Northern Mariana Islands	2016	..	*16	..	..	*16	*285
	2017	..	*17	..	..	*17	*301
	2018	..	*16	..	..	*16	*281
	2019	..	*16	..	..	*16	*280
Palau	2016	..	6	..	..	6	337
	2017	..	*7	..	..	*7	*393
	2018	..	*8	..	..	*8	*447
	2019	..	*9	..	..	*9	*500
Papua New Guinea	2016	0	53	..	2	51	6
	2017	0	64	..	-16	80	9
	2018	..	19	..	-16	35	4
	2019	..	*37	..	0	*37	*4
Samoa	2016	..	27	0	3	24	126
	2017	..	30	0	*3	27	138
	2018	..	28	0	0	28	144
	2019	..	33	0	*2	30	153
Solomon Islands	2016	..	*21	..	..	*21	*34
	2017	..	*21	..	..	*21	*33
	2018	..	*21	..	..	*21	*33
	2019	..	*22	..	..	*22	*32

### Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Tonga	2016	..	15	..	..	15	148
	2017	..	17	..	..	17	165
	2018	..	17	..	..	17	166
	2019	..	25	..	..	25	237
Tuvalu	2016	..	0	..	..	0	*30
	2017	..	0	..	..	0	*30
	2018	..	0	..	..	0	*30
	2019	..	0	..	..	0	*31
Vanuatu	2016	..	8	..	..	8	28
	2017	..	6	..	..	6	20
	2018	..	8	..	..	8	26
	2019	..	8	..	..	8	26
Wallis and Futuna Is.	2016	..	*1	..	..	*1	*101
	2017	..	*1	..	..	*1	*103
	2018	..	*1	..	..	*1	*103
	2019	..	*1	..	..	*1	*104



### Production, trade and supply of other kerosene

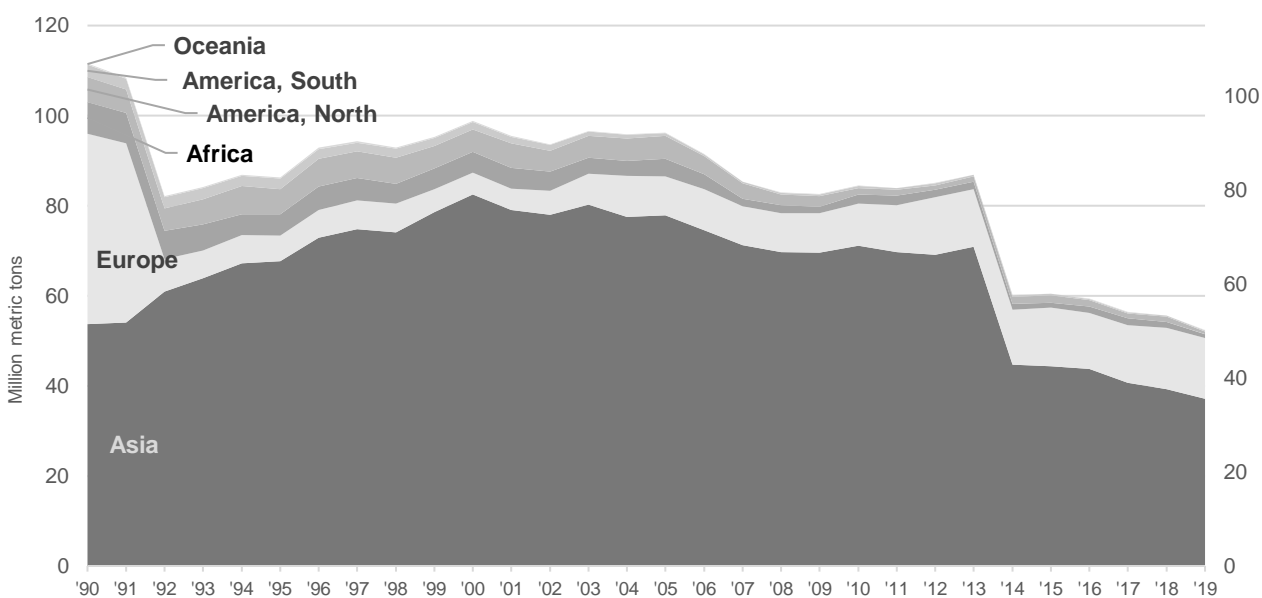
Thousand metric tons and kilograms per capita

#### Table Notes

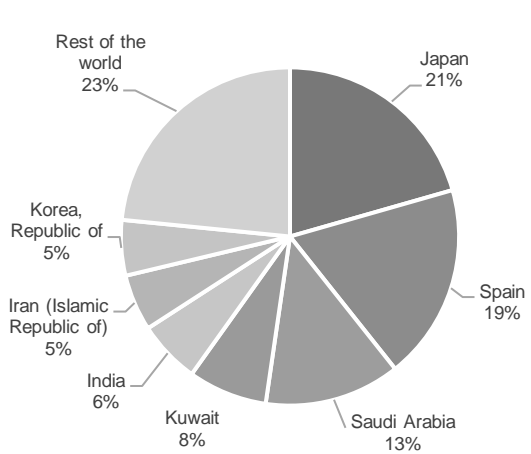
**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 51: Production of other kerosene by region, 1990-2019**



**Figure 52: Major other kerosene producing countries, 2019**



**Figure 53: Major other kerosene consuming countries, 2019**

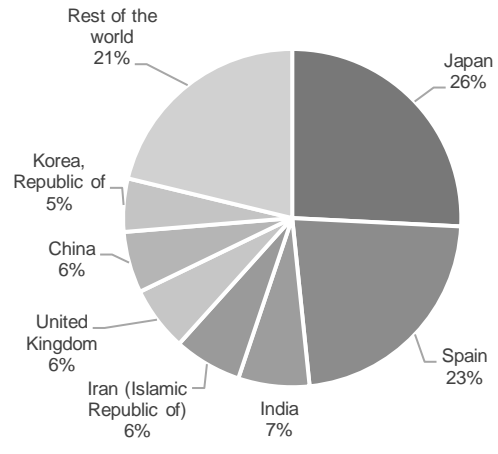


Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2016</b>	<b>59,368</b>	<b>6,761</b>	<b>15,735</b>	<b>1,604</b>	<b>48,790</b>	<b>7</b>
	<b>2017</b>	<b>56,422</b>	<b>7,132</b>	<b>15,617</b>	<b>1,400</b>	<b>46,537</b>	<b>6</b>
	<b>2018</b>	<b>55,641</b>	<b>6,583</b>	<b>15,645</b>	<b>2,211</b>	<b>44,368</b>	<b>6</b>
	<b>2019</b>	<b>52,381</b>	<b>7,271</b>	<b>14,511</b>	<b>1,586</b>	<b>43,555</b>	<b>6</b>
<b>Africa</b>	<b>2016</b>	<b>1,424</b>	<b>1,501</b>	<b>215</b>	<b>9</b>	<b>2,701</b>	<b>2</b>
	<b>2017</b>	<b>1,494</b>	<b>1,301</b>	<b>191</b>	<b>-12</b>	<b>2,616</b>	<b>2</b>
	<b>2018</b>	<b>1,261</b>	<b>1,107</b>	<b>97</b>	<b>-5</b>	<b>2,276</b>	<b>2</b>
	<b>2019</b>	<b>879</b>	<b>1,280</b>	<b>62</b>	<b>10</b>	<b>2,087</b>	<b>2</b>
Algeria	2016	*21	..	..	..	*21	*1
	2017	*17	..	..	..	*17	0
	2018	*18	..	..	..	*18	0
	2019	*15	..	..	..	*15	0
Angola	2016	85	..	..	..	85	3
	2017	52	..	..	..	52	2
	2018	36	..	..	..	36	1
	2019	24	..	..	..	24	1
Benin	2016	..	19	..	-2	21	2
	2017	..	19	..	-1	20	2
	2018	..	49	..	-1	51	4
	2019	..	23	..	0	23	2
Botswana	2016	..	5	..	..	5	2
	2017	..	4	..	..	4	2
	2018	..	3	..	..	3	1
	2019	..	3	..	..	3	1
Burkina Faso	2016	..	8	..	*2	6	0
	2017	..	4	..	*-3	6	0
	2018	..	7	..	*1	6	0
	2019	..	9	..	*2	7	0
Cabo Verde	2016	..	0	..	..	0	*1
	2017	..	0	..	..	0	*1
	2018	..	0	..	..	0	*1
	2019	..	0	..	..	0	*1
Cameroon	2016	121	3	35	-6	95	4
	2017	100	3	5	..	98	4
	2018	90	15	5	..	100	4
	2019	47	58	2	..	103	4
Central African Rep.	2016	..	*2	..	..	*2	0
	2017	..	*2	..	..	*2	0
	2018	..	*2	..	..	*2	0
	2019	..	*2	..	..	*2	0
Chad	2016	*4	..	*2	..	*2	0
	2017	*4	..	*2	..	*2	0
	2018	*4	..	2	..	*2	0
	2019	*4	..	*2	..	*2	0
Comoros	2016	..	*12	..	..	*12	*14
	2017	..	*17	..	..	*17	*21
	2018	..	*17	..	..	*17	*20
	2019	..	*16	..	..	*16	*19
Congo	2016	10	..	..	..	10	2
	2017	7	..	..	..	7	1
	2018	7	..	..	..	7	1
	2019	7	..	..	..	7	1

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Dem. Rep. of the Congo	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	0	..	..	0	0
Djibouti	2016	..	6	..	..	6	7
	2017	..	6	..	..	6	7
	2018	..	*6	..	..	*6	*7
	2019	..	*6	..	..	*6	*6
Egypt	2016	63	..	*58	..	5	0
	2017	65	..	59	..	6	0
	2018	33	..	29	..	4	0
	2019	41	..	..	..	41	0
Equatorial Guinea	2016	..	*17	..	..	*17	*14
	2017	..	*18	..	..	*18	*14
	2018	..	*15	..	..	*15	*12
	2019	..	*12	..	..	*12	*9
Eritrea	2016	..	14	..	..	14	4
	2017	..	15	..	..	15	4
	2018	..	15	..	..	15	4
	2019	..	15	..	..	15	4
Eswatini	2016	..	4	..	..	4	4
	2017	..	4	..	..	4	4
	2018	..	4	..	..	4	3
	2019	..	*4	..	..	*4	*3
Ethiopia	2016	..	160	..	-4	164	2
	2017	..	74	..	..	74	1
	2018	..	63	..	..	63	1
	2019	..	68	..	..	68	1
Gabon	2016	29	8	..	..	37	18
	2017	22	23	18	..	27	13
	2018	20	23	18	..	25	12
	2019	19	23	18	..	24	11
Ghana	2016	25	..	..	..	25	1
	2017	2	..	..	-9	11	0
	2018	33	..	..	..	33	1
	2019	12	..	..	11	1	0
Guinea	2016	..	17	..	..	17	1
	2017	..	24	..	..	24	2
	2018	..	21	..	..	21	2
	2019	..	25	..	..	25	2
Guinea-Bissau	2016	..	*9	..	..	*9	*5
	2017	..	*9	..	..	*9	*5
	2018	..	*9	..	..	*9	*5
	2019	..	*10	..	..	*10	*5
Kenya	2016	0	467	76	..	390	8
	2017	0	448	66	..	382	8
	2018	..	339	..	..	339	7
	2019	..	21	..	..	21	0
Lesotho	2016	..	25	..	..	25	12
	2017	..	27	..	..	27	13
	2018	..	28	..	..	28	13
	2019	..	21	..	..	21	10



Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Libya	2016	25	97	..	..	122	19
	2017	24	105	..	..	129	20
	2018	24	85	..	..	110	16
	2019	21	72	..	..	93	14
Madagascar	2016	..	24	..	10	14	1
	2017	..	21	..	-2	23	1
	2018	..	20	..	-3	23	1
	2019	..	20	..	-4	24	1
Malawi	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	0
Mali	2016	..	*30	..	..	*30	*2
	2017	..	*31	..	..	*31	*2
	2018	..	*32	..	..	*32	*2
	2019	..	*33	..	..	*33	*2
Mauritius	2016	..	2	..	1	1	1
	2017	..	2	..	1	1	1
	2018	..	3	..	2	1	1
	2019	..	13	..	10	4	3
Namibia	2016	..	2	..	..	2	1
	2017	..	2	..	..	2	1
	2018	..	2	..	..	2	1
	2019	..	2	..	..	2	1
Niger	2016	..	1	..	0	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Nigeria	2016	401	302	..	..	703	4
	2017	502	265	..	..	767	4
	2018	327	159	..	..	486	2
	2019	60	658	..	..	717	4
Rwanda	2016	..	19	..	*8	11	1
	2017	..	5	..	*-3	8	1
	2018	..	5	..	*-3	8	1
	2019	..	4	..	..	4	0
Sao Tome and Principe	2016	..	*4	..	..	*4	*19
	2017	..	*4	..	..	*4	*19
	2018	..	*4	..	..	*4	*20
	2019	..	*4	..	..	*4	*20
Senegal	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	..	..	..	..	..
	2019	2	..	..	..	2	0
Seychelles	2016	..	*1	..	..	*1	*10
	2017	..	*1	..	..	*1	*10
	2018	..	*1	..	..	*1	*9
	2019	..	*1	..	..	*1	*9
Sierra Leone	2016	..	*1	..	..	*1	0
	2017	..	*1	..	..	*1	0
	2018	..	*1	..	..	*1	0
	2019	..	0	..	..	0	0

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Somalia	2016	..	*31	..	..	*31	*2
	2017	..	*31	..	..	*31	*2
	2018	..	*31	..	..	*31	*2
	2019	..	*31	..	..	*31	*2
South Africa	2016	558	4	42	..	520	9
	2017	619	2	40	..	581	10
	2018	605	2	39	..	568	10
	2019	596	2	39	..	559	10
South Sudan	2016	..	2	..	..	2	0
	2017	..	1	..	..	1	0
	2018	..	2	..	..	2	0
	2019	..	2	..	..	2	0
Sudan	2016	11	..	..	..	11	0
	2017	4	..	..	..	4	0
	2018	10	..	..	..	10	0
	2019	*10	..	..	..	*10	0
Togo	2016	..	72	..	..	72	10
	2017	..	9	..	1	8	1
	2018	..	26	..	-1	27	3
	2019	..	26	..	..	26	3
Tunisia	2016	53	0	..	0	53	5
	2017	59	0	..	4	55	5
	2018	34	..	..	..	34	3
	2019	11	..	..	-9	20	2
Uganda	2016	..	48	..	..	48	1
	2017	..	46	..	..	46	1
	2018	..	47	..	..	47	1
	2019	..	44	..	..	44	1
United Rep. of Tanzania	2016	..	32	..	..	32	1
	2017	..	21	..	..	21	0
	2018	..	9	..	..	9	0
	2019	..	16	..	..	16	0
Zambia	2016	18	..	2	..	16	1
	2017	18	..	1	..	17	1
	2018	21	..	5	..	15	1
	2019	13	..	2	..	11	1
Zimbabwe	2016	..	51	..	..	51	4
	2017	..	55	..	..	55	4
	2018	..	59	..	..	59	4
	2019	..	33	..	..	33	2
<b>America, North</b>	<b>2016</b>	<b>1,467</b>	<b>585</b>	<b>521</b>	<b>-53</b>	<b>1,585</b>	<b>3</b>
	<b>2017</b>	<b>1,136</b>	<b>506</b>	<b>338</b>	<b>-35</b>	<b>1,340</b>	<b>2</b>
	<b>2018</b>	<b>1,209</b>	<b>387</b>	<b>218</b>	<b>45</b>	<b>1,332</b>	<b>2</b>
	<b>2019</b>	<b>600</b>	<b>732</b>	<b>232</b>	<b>41</b>	<b>1,060</b>	<b>2</b>
Bahamas	2016	..	*3	..	..	*3	*8
	2017	..	*3	..	..	*3	*8
	2018	..	*3	..	..	*3	*8
	2019	..	*3	..	..	*3	*8
Barbados	2016	..	*8	..	0	*8	*29
	2017	..	*9	..	0	*9	*32
	2018	..	*10	..	..	*10	*34
	2019	..	*10	..	..	*10	*35

Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Belize	2016	..	0	..	..	0	0
	2017	..	0	..	..	0	0
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	1
Bermuda	2016	..	28	..	..	28	436
	2017	..	15	..	..	15	244
	2018	..	30	..	..	30	481
	2019	..	26	..	..	26	414
British Virgin Islands	2016	..	*4	..	..	*4	*136
	2017	..	*3	..	..	*3	*108
	2018	..	*3	..	..	*3	*101
	2019	..	*3	..	..	*3	*103
Canada	2016	773	102	..	7	868	24
	2017	756	72	4	-10	834	23
	2018	728	67	..	-19	814	22
	2019	104	394	..	6	492	13
Cuba	2016	2	*77	..	..	*78	*7
	2017	3	*78	..	..	*81	*7
	2018	7	*74	..	..	*80	*7
	2019	1	*72	..	..	*73	*6
Dominica	2016	..	0	..	0	0	*4
	2017	..	0	..	0	0	*6
	2018	..	0	..	0	0	*6
	2019	..	0	..	0	0	*6
Dominican Republic	2016	9	..	..	0	9	1
	2017	6	..	..	0	6	1
	2018	8	..	..	0	8	1
	2019	16	..	..	..	16	1
El Salvador	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	4	..	..	4	1
Grenada	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	1
	2019	..	0	..	..	0	1
Guatemala	2016	0	114	94	-7	27	2
	2017	0	41	41	-1	1	0
	2018	..	17	17	0	1	0
	2019	..	10	4	2	4	0
Haiti	2016	..	71	..	..	71	7
	2017	..	72	..	..	72	7
	2018	..	73	..	..	73	7
	2019	..	73	..	..	73	6
Honduras	2016	..	57	..	10	47	5
	2017	..	17	..	1	17	2
	2018	..	21	..	-3	24	2
	2019	..	22	..	..	22	2
Montserrat	2016	..	0	..	..	0	80
	2017	..	0	..	..	0	*80
	2018	..	0	..	..	0	*80
	2019	..	0	..	..	0	*80

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Nicaragua	2016	6	..	..	..	6	1
	2017	8	..	..	..	8	1
	2018	8	..	..	..	8	1
	2019	6	..	..	..	6	1
Panama	2016	..	1	..	..	1	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
St. Kitts-Nevis	2016	..	*5	..	..	*5	*103
	2017	..	*5	..	..	*5	*104
	2018	..	*6	..	..	*6	*105
	2019	..	*6	..	..	*6	*107
St. Lucia	2016	..	1	..	..	1	8
	2017	..	1	..	..	1	8
	2018	..	2	..	..	2	8
	2019	..	*2	..	..	*2	*9
Trinidad and Tobago	2016	32	..	..	..	32	23
	2017	29	..	..	..	29	21
	2018	24	..	..	..	24	18
	2019	..	14	..	..	14	10
United States	2016	646	112	427	-63	394	1
	2017	335	185	292	-23	252	1
	2018	434	80	202	68	244	1
	2019	473	92	228	34	303	1
<b>America, South</b>	<b>2016</b>	<b>262</b>	<b>18</b>	..	<b>2</b>	<b>279</b>	<b>1</b>
	<b>2017</b>	<b>252</b>	<b>33</b>	..	<b>0</b>	<b>285</b>	<b>1</b>
	<b>2018</b>	<b>251</b>	<b>19</b>	..	<b>0</b>	<b>269</b>	<b>1</b>
	<b>2019</b>	<b>229</b>	<b>20</b>	..	<b>4</b>	<b>245</b>	<b>1</b>
Argentina	2016	14	..	..	0	14	0
	2017	10	..	..	-2	12	0
	2018	9	..	..	-2	11	0
	2019	8	..	..	-1	9	0
Bolivia (Plur. State of)	2016	18	..	..	..	18	2
	2017	16	..	..	-3	19	2
	2018	18	..	..	0	18	2
	2019	20	..	..	0	20	2
Brazil	2016	6	..	..	0	6	0
	2017	5	..	..	..	5	0
	2018	5	..	..	..	5	0
	2019	5	..	..	..	5	0
Chile	2016	161	0	..	0	161	9
	2017	161	15	..	4	172	9
	2018	162	..	..	1	161	9
	2019	161	..	..	3	159	8
Ecuador	2016	2	..	..	..	2	0
	2017	4	..	..	..	4	0
	2018	3	..	..	..	3	0
	2019	3	..	..	..	3	0
Falkland Is. (Malvinas)	2016	..	3	..	..	3	1,025
	2017	..	3	..	..	3	888
	2018	..	3	..	..	3	909
	2019	..	3	..	..	3	938

Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Guyana	2016	..	14	..	2	13	16
	2017	..	15	..	1	13	17
	2018	..	15	..	2	13	17
	2019	..	16	..	3	13	16
Suriname	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	1
	2019	..	0	..	..	0	1
Uruguay	2016	7	..	..	0	7	2
	2017	5	..	..	0	5	1
	2018	5	..	..	0	5	2
	2019	4	..	..	-1	5	1
Venezuela (Bolivar. Rep.)	2016	54	..	..	..	54	2
	2017	51	..	..	..	51	2
	2018	49	..	..	..	49	2
	2019	28	..	..	..	28	1
<b>Asia</b>	<b>2016</b>	<b>43,721</b>	<b>1,808</b>	<b>13,020</b>	<b>1,693</b>	<b>30,816</b>	<b>7</b>
	<b>2017</b>	<b>40,696</b>	<b>2,571</b>	<b>13,079</b>	<b>1,483</b>	<b>28,705</b>	<b>6</b>
	<b>2018</b>	<b>39,238</b>	<b>2,328</b>	<b>13,464</b>	<b>2,052</b>	<b>26,050</b>	<b>6</b>
	<b>2019</b>	<b>37,132</b>	<b>2,723</b>	<b>12,423</b>	<b>1,587</b>	<b>25,845</b>	<b>6</b>
Afghanistan	2016	..	10	..	*-11	*21	*1
	2017	..	36	..	*12	24	1
	2018	..	12	..	*-11	23	1
	2019	..	*19	..	*-2	*21	*1
Armenia	2016	..	0	..	..	0	0
	2017	..	0	..	..	0	0
	2018	..	0	..	..	0	0
	2019	..	1	..	..	1	0
Azerbaijan	2016	..	11	..	-4	15	1
	2017	..	3	..	..	3	0
	2018	..	23	..	..	23	2
	2019	..	4	..	..	4	0
Bahrain	2016	0	..	0	-20	20	14
	2017	0	..	0	-18	18	12
	2018	0	..	0	-16	16	10
	2019	0	..	0	-16	16	10
Bangladesh	2016	194	..	..	..	194	1
	2017	237	..	..	..	237	1
	2018	127	..	..	..	127	1
	2019	95	..	..	..	95	1
Bhutan	2016	..	4	..	..	4	5
	2017	..	4	..	..	4	5
	2018	..	3	..	..	3	4
	2019	..	2	..	..	2	3
Brunei Darussalam	2016	6	..	..	..	6	14
	2017	6	..	..	..	6	14
	2018	4	..	..	..	4	10
	2019	3	..	..	..	3	7
China	2016	1,613	27	0	26	1,613	1
	2017	1,442	43	0	-22	1,507	1
	2018	1,437	65	0	-52	1,554	1
	2019	1,815	842	5	100	2,552	2

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
China, Macao SAR	2016	..	2	..	..	2	3
	2017	..	2	..	..	2	3
	2018	..	2	..	..	2	3
	2019	..	2	..	..	2	3
Cyprus	2016	..	12	..	..	12	10
	2017	..	16	..	2	14	12
	2018	..	12	..	0	12	10
	2019	..	12	..	0	12	10
India	2016	6,041	0	15	..	6,026	5
	2017	4,408	..	17	..	4,391	3
	2018	4,072	..	19	..	4,053	3
	2019	3,141	..	176	..	2,965	2
Indonesia	2016	843	4	0	..	847	3
	2017	788	0	0	..	788	3
	2018	779	0	0	..	779	3
	2019	896	37	0	..	933	3
Iran (Islamic Rep. of)	2016	2,523	..	4	..	2,519	32
	2017	2,820	..	0	..	2,820	35
	2018	2,895	..	..	..	2,895	35
	2019	2,829	..	..	..	2,829	34
Iraq	2016	1,148	206	..	..	1,354	37
	2017	1,396	217	..	..	1,613	43
	2018	1,447	213	..	..	1,660	43
	2019	1,521	225	..	..	1,747	44
Israel	2016	283	255	264	19	255	31
	2017	..	373	263	-68	178	22
	2018	..	380	301	-9	88	11
	2019	..	165	300	-12	-123	-14
Japan	2016	12,863	1,063	466	-105	13,565	106
	2017	12,796	1,569	421	386	13,559	106
	2018	10,780	1,457	568	84	11,585	91
	2019	10,777	1,271	811	11	11,226	88
Jordan	2016	97	..	..	11	86	9
	2017	54	68	..	32	90	9
	2018	11	40	..	..	51	5
	2019	*10	60	..	..	70	7
Kazakhstan	2016	2	0	0	-12	14	1
	2017	0	0	..	..	0	0
	2018	5	1	0	4	2	0
	2019	5	..	0	-12	17	1
Korea, Dem.Ppl's.Rep.	2016	37	1	..	..	38	2
	2017	37	1	..	..	38	1
	2018	37	1	..	..	38	1
	2019	37	1	..	..	38	1
Korea, Republic of	2016	2,716	3	265	-10	2,464	48
	2017	2,722	4	685	-58	2,099	41
	2018	2,729	..	846	62	1,821	36
	2019	2,781	5	539	31	2,216	43
Kuwait	2016	5,505	..	5,406	..	99	25
	2017	4,362	..	4,258	..	104	26
	2018	4,676	..	4,539	..	137	33
	2019	3,965	..	3,832	..	133	32

Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Lao People's Dem. Rep.	2016	..	*6	..	..	*6	*1
	2017	..	*6	..	..	*6	*1
	2018	..	*6	..	..	*6	*1
	2019	..	*6	..	..	*6	*1
Malaysia	2016	4	0	74	-13	-57	-2
	2017	10	..	58	-3	-45	-1
	2018	18	..	50	8	-40	-1
	2019	17	0	85	..	-68	-2
Maldives	2016	..	0	..	..	0	0
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	0
	2019	..	0	..	..	0	0
Nepal	2016	..	15	..	..	15	1
	2017	..	17	..	..	17	1
	2018	..	19	..	..	19	1
	2019	..	14	..	..	14	0
Oman	2016	6	..	..	..	6	1
	2017	4	..	..	..	4	1
	2018	3	..	..	..	3	1
	2019	2	..	..	..	2	0
Other Asia	2016	7	..	..	3	4	0
	2017	2	..	..	-3	5	0
	2018	5	..	..	1	4	0
	2019	2	..	..	0	2	0
Pakistan	2016	125	0	..	0	125	1
	2017	115	0	..	..	115	1
	2018	113	..	..	-5	118	1
	2019	107	0	..	..	107	0
Philippines	2016	67	33	0	3	97	1
	2017	53	41	0	-3	97	1
	2018	47	34	..	2	79	1
	2019	33	17	..	-4	54	0
Saudi Arabia	2016	7,247	86	*6,219	145	969	30
	2017	7,332	105	*7,145	-218	510	15
	2018	7,758	..	6,871	292	595	18
	2019	*6,804	..	*6,410	*-121	*514	*15
Singapore	2016	266	20	286	..	0	0
	2017	205	18	223	..	0	0
	2018	250	15	266	..	0	0
	2019	256	7	263	..	0	0
Sri Lanka	2016	104	0	..	-68	172	8
	2017	60	..	..	-99	159	8
	2018	35	..	..	-7	42	2
	2019	38	..	..	1	37	2
State of Palestine	2016	..	2	..	..	2	0
	2017	..	1	..	..	1	0
	2018	..	1	..	..	1	0
	2019	..	1	..	..	1	0
Syrian Arab Republic	2016	3	..	..	..	3	0
	2017	3	..	..	..	3	0
	2018	3	..	..	..	3	0
	2019	3	..	..	..	3	0

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Thailand	2016	1,756	..	21	1,726	9	0
	2017	1,557	..	9	1,541	6	0
	2018	1,694	..	4	1,684	6	0
	2019	1,619	..	2	1,611	6	0
Timor-Leste	2016	..	..	..	..	..	..
	2017	..	..	..	..	..	..
	2018	..	1	..	..	1	1
	2019	..	0	..	..	0	0
Turkey	2016	18	..	..	3	15	0
	2017	19	..	..	4	15	0
	2018	23	..	..	15	8	0
	2019	10	..	..	1	9	0
Turkmenistan	2016	150	..	..	..	150	26
	2017	150	..	..	..	150	26
	2018	150	..	..	..	150	26
	2019	150	..	..	..	150	25
Uzbekistan	2016	12	..	..	..	12	0
	2017	9	..	..	..	9	0
	2018	9	..	..	..	9	0
	2019	6	..	..	0	6	0
Viet Nam	2016	..	50	..	..	50	1
	2017	..	49	..	..	49	1
	2018	..	43	1	..	42	0
	2019	..	32	..	..	32	0
Yemen	2016	84	..	..	..	84	3
	2017	110	..	..	..	110	4
	2018	131	..	..	..	131	5
	2019	211	..	..	..	211	7
<b>Europe</b>	<b>2016</b>	<b>12,441</b>	<b>2,818</b>	<b>1,979</b>	<b>-46</b>	<b>13,326</b>	<b>18</b>
	<b>2017</b>	<b>12,792</b>	<b>2,692</b>	<b>2,009</b>	<b>-37</b>	<b>13,511</b>	<b>18</b>
	<b>2018</b>	<b>13,625</b>	<b>2,713</b>	<b>1,866</b>	<b>116</b>	<b>14,356</b>	<b>19</b>
	<b>2019</b>	<b>13,488</b>	<b>2,492</b>	<b>1,794</b>	<b>-55</b>	<b>14,241</b>	<b>19</b>
Austria	2016	21	0	..	..	21	2
	2017	15	1	0	0	16	2
	2018	26	1	0	0	26	3
	2019	15	1	0	0	15	2
Belarus	2016	5	..	0	2	3	0
	2017	7	..	3	2	2	0
	2018	7	..	0	2	5	1
	2019	14	..	5	7	2	0
Belgium	2016	21	84	113	-18	10	1
	2017	31	58	166	5	-81	-7
	2018	30	64	302	-10	-198	-17
	2019	25	63	313	-11	-213	-18
Croatia	2016	..	4	..	..	4	1
	2017	..	3	..	..	3	1
	2018	..	3	..	..	3	1
	2019	..	2	..	..	2	0
Czechia	2016	..	2	..	..	2	0
	2017	..	2	..	..	2	0
	2018	..	2	..	..	2	0
	2019	..	2	..	..	2	0



Table 19

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Finland	2016	..	350	78	..	272	49
	2017	..	140	120	..	20	4
	2018	..	380	54	..	326	59
	2019	..	493	110	..	383	69
France	2016	0	198	51	0	147	2
	2017	..	211	75	..	136	2
	2018	..	186	66	..	120	2
	2019	..	210	72	..	138	2
Germany	2016	9	21	..	2	28	0
	2017	9	22	..	5	26	0
	2018	2	22	..	-4	28	0
	2019	4	19	..	-2	25	0
Greece	2016	0	0	0	0	0	0
	2017	0	1	0	-1	1	0
	2018	..	1	..	0	1	0
	2019	..	1	..	0	1	0
Ireland	2016	175	493	12	-8	664	141
	2017	158	364	0	-10	532	112
	2018	215	350	21	-12	557	116
	2019	307	330	70	-16	583	119
Italy	2016	432	425	425	-10	442	7
	2017	487	655	662	1	479	8
	2018	721	445	647	85	434	7
	2019	471	265	312	-11	434	7
Luxembourg	2016	..	0	..	..	0	0
	2017	..	1	..	0	0	1
	2018	..	0	..	0	0	1
	2019	..	1	..	0	1	1
Malta	2016	..	..	..	..	..	..
	2017	..	1	..	0	1	2
	2018	..	1	..	0	1	2
	2019	..	1	0	0	1	1
Netherlands	2016	730	231	692	18	251	15
	2017	398	392	520	28	242	14
	2018	211	518	321	5	403	24
	2019	305	402	412	-12	307	18
Norway	2016	18	52	208	0	-138	-26
	2017	87	48	93	19	23	4
	2018	8	68	62	3	11	2
	2019	40	58	52	0	45	8
Poland	2016	0	0	..	..	0	0
	2017	0	1	0	0	1	0
	2018	0	1	0	0	1	0
	2019	0	0	..	0	0	0
Portugal	2016	0	1	..	0	1	0
	2017	0	1	..	0	1	0
	2018	0	0	..	0	1	0
	2019	0	0	..	0	0	0
Romania	2016	10	1	..	..	11	1
	2017	1	1	0	0	1	0
	2018	1	1	0	0	2	0
	2019	1	1	0	0	1	0

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Russian Federation	2016	*298	..	298	..	0	0
	2017	*252	..	252	..	0	0
	2018	*315	..	315	..	0	0
	2019	*428	..	428	..	0	0
Spain	2016	8,673	..	..	14	8,659	186
	2017	9,300	..	..	-28	9,328	200
	2018	10,038	..	..	46	9,992	214
	2019	9,816	..	..	-10	9,826	210
Switzerland	2016	..	2	..	..	2	0
	2017	..	2	..	..	2	0
	2018	..	2	0	..	2	0
	2019	..	2	0	0	2	0
Ukraine	2016	..	*123	*16	*-9	*116	*3
	2017	..	*142	*16	..	*126	*3
	2018	..	..	..	..	..	..
	2019	..	..	..	..	..	..
United Kingdom	2016	2,049	831	86	-37	2,831	43
	2017	2,047	648	102	-59	2,651	40
	2018	2,053	667	78	2	2,640	39
	2019	2,062	644	19	..	2,687	40
<b>Oceania</b>	<b>2016</b>	<b>52</b>	<b>30</b>	<b>0</b>	<b>-1</b>	<b>83</b>	<b>2</b>
	<b>2017</b>	<b>52</b>	<b>29</b>	<b>0</b>	<b>1</b>	<b>79</b>	<b>2</b>
	<b>2018</b>	<b>56</b>	<b>30</b>	<b>0</b>	<b>1</b>	<b>85</b>	<b>2</b>
	<b>2019</b>	<b>53</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>2</b>
Australia	2016	9	3	..	0	12	0
	2017	7	4	..	0	11	0
	2018	6	2	..	2	5	0
	2019	..	2	..	-2	4	0
Fiji	2016	..	1	..	..	1	2
	2017	..	0	..	..	0	0
	2018	..	*1	..	..	*1	*1
	2019	..	0	..	..	0	0
French Polynesia	2016	..	1	..	..	1	4
	2017	..	1	..	..	1	3
	2018	..	1	..	..	1	3
	2019	..	1	..	..	1	3
Kiribati	2016	..	2	..	..	2	14
	2017	..	2	..	..	2	19
	2018	..	*2	..	..	*2	*18
	2019	..	*2	..	..	*2	*17
New Caledonia	2016	..	8	..	..	8	30
	2017	..	5	..	..	5	19
	2018	..	10	..	..	10	36
	2019	..	2	..	..	2	6
Palau	2016	..	*2	..	..	*2	*113
	2017	..	*2	..	..	*2	*118
	2018	..	*2	..	..	*2	*117
	2019	..	*2	..	..	*2	*117
Papua New Guinea	2016	43	..	..	..	43	5
	2017	45	..	..	..	45	5
	2018	51	..	..	..	51	6
	2019	53	..	..	..	53	6

Table 19

### Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Samoa	2016	..	12	0	*-1	13	67
	2017	..	14	0	*1	13	66
	2018	..	12	0	*-1	13	66
	2019	..	15	0	*2	13	65
Tonga	2016	..	0	..	..	0	1
	2017	..	0	..	..	0	1
	2018	..	0	..	..	0	1
	2019	..	0	..	..	0	1
Tuvalu	2016	..	0	..	..	0	*3
	2017	..	0	..	..	0	*4
	2018	..	0	..	..	0	*3
	2019	..	0	..	..	0	*3





### Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to aviation gasoline, gasoline-type jet fuel and kerosene-type jet fuel.

**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

Figure 54: Production of jet fuels by region, 1990-2019

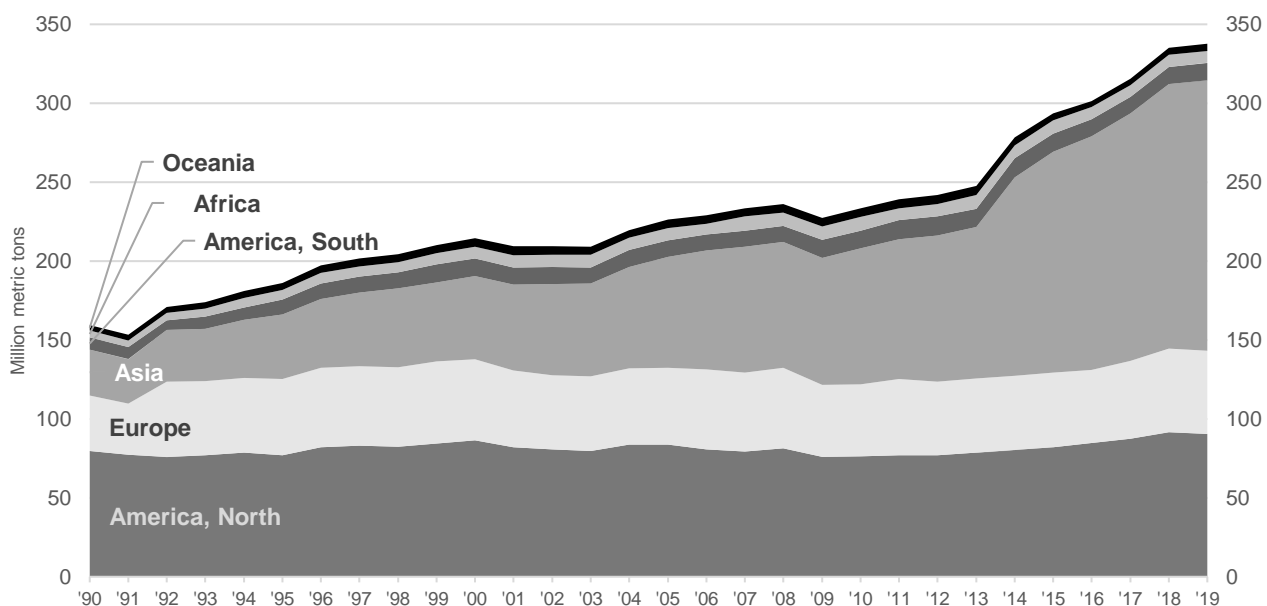


Figure 55: Major jet fuels producing countries, 2019

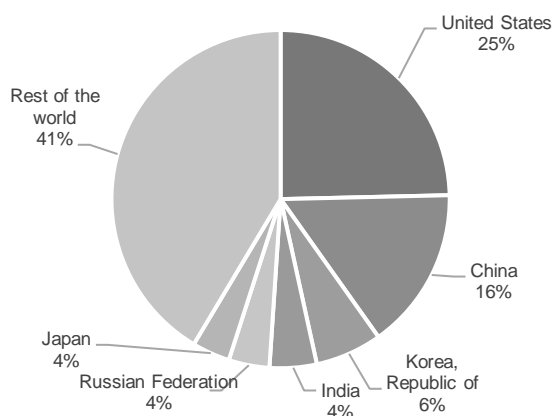
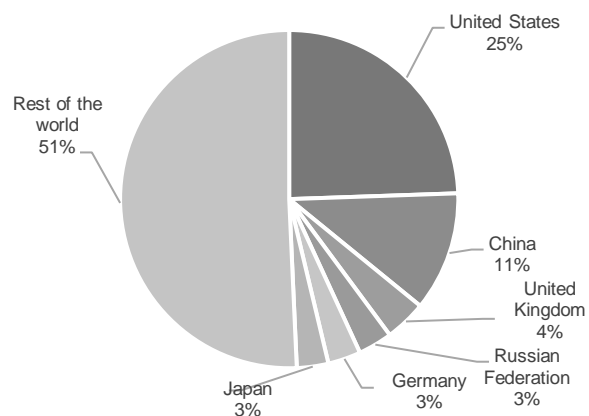


Figure 56: Major jet fuels consuming<sup>1</sup> countries, 2019



<sup>1</sup> Consumption includes bunkers

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2016	301,482	88,499	91,797	174,278	2,029	121,877	16
	2017	315,664	93,146	95,284	183,590	-116	130,053	17
	2018	335,175	94,653	101,957	191,435	2,003	134,433	18
	2019	337,721	91,439	98,371	193,545	776	136,468	18
Africa	2016	7,736	5,032	3,003	7,552	-1	2,213	2
	2017	7,297	5,741	2,889	8,410	-48	1,788	1
	2018	7,617	6,019	3,176	8,419	-12	2,052	2
	2019	7,668	5,749	3,017	8,023	33	2,344	2
Algeria	2016	*1,635	..	1,100	*377	*30	*128	*3
	2017	*1,544	..	1,102	*355	*-35	*122	*3
	2018	*1,497	..	953	*434	*-31	*141	*3
	2019	1,221	..	682	472	-1	68	2
Angola	2016	338	43	*102	294	..	-16	-1
	2017	350	33	*89	300	..	-6	0
	2018	228	92	*45	294	..	-19	-1
	2019	305	..	*23	292	..	-10	0
Benin	2016	..	23	..	32	-9	0	0
	2017	..	26	..	29	-4	1	0
	2018	..	30	..	30	0	0	0
	2019	..	27	..	21	6	0	0
Botswana	2016	..	19	..	11	..	8	3
	2017	..	19	..	11	..	8	3
	2018	..	27	..	12	..	15	7
	2019	..	28	..	12	..	16	7
Burkina Faso	2016	..	22	..	22	0	0	0
	2017	..	27	..	27	*-1	0	0
	2018	..	33	..	30	*3	0	0
	2019	..	27	..	30	*-4	0	0
Burundi	2016	..	2	..	2	0	0	0
	2017	..	4	..	4	..	0	0
	2018	..	5	..	5	..	0	0
	2019	..	5	..	5	..	0	0
Cabo Verde	2016	..	*58	..	*45	..	*13	*24
	2017	..	*62	..	*48	..	*14	*25
	2018	..	*64	..	*51	..	*14	*26
	2019	..	*65	..	*50	..	*15	*27
Cameroon	2016	106	10	83	21	..	12	1
	2017	87	8	68	17	..	10	0
	2018	79	10	62	16	..	12	0
	2019	41	17	32	17	..	9	0
Central African Rep.	2016	..	*15	..	15	..	0	0
	2017	..	*16	..	16	..	0	0
	2018	..	*17	..	17	..	0	0
	2019	..	*17	..	*17	..	0	0
Chad	2016	*33	*3	*3	*24	..	*9	*1
	2017	*36	*3	*3	26	..	*10	*1
	2018	*38	*3	*3	28	..	*11	*1
	2019	*35	*3	*3	25	..	*10	*1
Comoros	2016	..	*5	..	*1	..	*4	*4
	2017	..	*5	..	*1	..	*4	*4
	2018	..	*7	..	*2	..	*5	*6
	2019	..	*7	..	*2	..	*6	*7

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2016	45	35	..	41	0	39	8
	2017	37	9	..	31	..	15	3
	2018	38	9	..	32	..	15	3
	2019	38	9	..	32	..	15	3
Côte d'Ivoire	2016	634	..	468	159	0	6	0
	2017	*327	..	*148	*166	..	*13	*1
	2018	359	..	180	150	..	29	1
	2019	552	..	366	172	..	14	1
Dem. Rep. of the Congo	2016	..	115	..	115	..	0	0
	2017	..	117	..	117	..	0	0
	2018	..	134	..	134	..	0	0
	2019	..	121	..	121	..	0	0
Djibouti	2016	..	81	..	81	..	0	0
	2017	..	*81	..	*81	..	0	0
	2018	..	*81	..	*81	..	0	0
	2019	..	*81	..	*81	..	0	0
Egypt	2016	1,790	28	823	425	..	570	6
	2017	1,909	28	772	443	..	722	7
	2018	2,162	0	962	624	..	576	6
	2019	2,744	..	1,205	787	..	752	7
Equatorial Guinea	2016	..	*47	..	*47	..	0	0
	2017	..	*49	..	49	..	0	0
	2018	..	*44	..	44	..	0	0
	2019	..	*42	..	42	..	0	0
Eritrea	2016	..	12	..	10	..	2	1
	2017	..	10	..	8	..	2	0
	2018	..	16	..	14	..	3	1
	2019	..	12	..	9	..	3	1
Eswatini	2016	..	1	..	1	..	0	0
	2017	..	2	..	2	..	0	0
	2018	..	2	..	2	..	0	0
	2019	..	2	..	2	..	0	0
Ethiopia	2016	..	595	..	588	..	7	0
	2017	..	690	..	682	..	8	0
	2018	..	737	..	728	..	9	0
	2019	..	739	..	730	..	9	0
Gabon	2016	65	28	22	68	..	3	1
	2017	36	42	23	46	..	9	4
	2018	33	40	21	51	..	1	1
	2019	31	39	19	50	..	1	1
Gambia	2016	..	22	*1	*21	..	0	0
	2017	..	23	*1	*22	..	0	0
	2018	..	20	*1	*19	..	0	0
	2019	..	21	*1	*20	..	0	0
Ghana	2016	38	120	..	130	0	28	1
	2017	0	189	..	143	..	46	2
	2018	22	191	10	174	..	28	1
	2019	80	188	..	212	34	21	1
Guinea	2016	..	*31	..	*26	..	*5	0
	2017	..	37	..	*32	..	5	0
	2018	..	*35	..	*30	..	*5	0
	2019	..	47	..	*42	..	5	0



Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2016	..	*13	..	*13	..	0	0
	2017	..	*13	..	*13	..	0	0
	2018	..	*13	..	*13	..	0	0
	2019	..	*13	..	*13	..	0	0
Kenya	2016	0	709	0	705	..	4	0
	2017	0	763	0	762	..	1	0
	2018	..	675	..	674	..	1	0
	2019	..	487	0	705	..	-218	-4
Liberia	2016	..	*13	..	*6	..	*8	*2
	2017	..	*13	..	*6	..	*7	*2
	2018	..	*13	..	*6	..	*8	*2
	2019	..	*13	..	*6	..	*8	*2
Libya	2016	182	..	127	53	..	2	0
	2017	455	..	*384	56	..	15	2
	2018	639	..	*578	46	..	15	2
	2019	476	..	*416	49	..	12	2
Madagascar	2016	..	47	..	34	0	14	1
	2017	..	47	..	39	*-1	9	0
	2018	..	55	..	45	-1	11	0
	2019	..	57	..	48	-4	12	0
Malawi	2016	..	7	..	*6	..	1	0
	2017	..	8	..	*7	..	1	0
	2018	..	9	..	*8	..	1	0
	2019	..	5	..	*4	..	1	0
Mali	2016	..	*58	..	*58	..	0	0
	2017	..	*60	..	*60	..	0	0
	2018	..	*61	..	*61	..	0	0
	2019	..	*62	..	*62	..	0	0
Mauritania	2016	..	*21	..	20	..	*1	0
	2017	..	10	..	20	*-11	1	0
	2018	..	57	..	22	*33	1	0
	2019	..	39	..	20	*17	1	0
Mauritius	2016	..	285	..	142	2	142	112
	2017	..	310	..	154	2	154	122
	2018	..	304	..	156	-9	157	124
	2019	..	287	..	147	-6	147	116
Morocco	2016	0	640	9	642	-36	25	1
	2017	..	717	..	678	14	25	1
	2018	..	743	..	734	-18	27	1
	2019	..	818	..	775	11	32	1
Mozambique	2016	..	138	..	*46	..	92	3
	2017	..	58	..	13	..	45	2
	2018	..	55	..	3	..	52	2
	2019	..	62	..	0	..	61	2
Namibia	2016	..	44	..	38	..	6	3
	2017	..	43	..	37	..	6	2
	2018	..	42	..	37	..	5	2
	2019	..	42	..	36	..	6	2
Niger	2016	25	45	..	45	..	25	1
	2017	0	57	..	*57	..	0	0
	2018	3	45	..	*45	..	3	0
	2019	0	49	..	*49	..	0	0

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Nigeria	2016	41	539	..	424	..	156	1
	2017	54	636	..	505	..	186	1
	2018	27	820	..	650	..	197	1
	2019	5	704	..	460	..	250	1
Rwanda	2016	..	44	..	*22	..	22	2
	2017	..	51	..	*30	..	21	2
	2018	..	54	..	*30	..	24	2
	2019	..	46	..	*24	..	22	2
Sao Tome and Principe	2016	..	*12	..	*11	..	*1	*5
	2017	..	*12	..	*11	..	*1	*5
	2018	..	*13	..	*12	..	*1	*5
	2019	..	*13	..	*12	..	*1	*6
Senegal	2016	0	224	..	214	9	1	0
	2017	0	227	..	222	0	5	0
	2018	..	212	..	202	*6	4	0
	2019	..	192	..	192	*-8	8	1
Seychelles	2016	..	46	..	*40	..	6	61
	2017	..	60	..	*52	..	8	79
	2018	..	32	..	*28	..	4	41
	2019	..	50	..	*43	..	6	65
Sierra Leone	2016	..	*5	..	4	..	*1	0
	2017	..	*3	..	13	..	-10	-1
	2018	..	*5	..	5	..	0	0
	2019	..	*3	..	4	..	-1	0
Somalia	2016	..	*43	..	43	..	0	0
	2017	..	*43	..	43	..	0	0
	2018	..	*43	..	43	..	0	0
	2019	..	*43	..	43	..	0	0
South Africa	2016	2,640	93	265	1,661	..	807	14
	2017	2,379	372	299	2,152	..	299	5
	2018	2,444	334	363	1,734	..	680	12
	2019	2,100	387	270	1,189	..	1,028	18
South Sudan	2016	..	80	..	68	..	12	1
	2017	..	78	..	74	..	5	0
	2018	..	79	..	74	..	5	0
	2019	..	89	..	83	..	5	0
Sudan	2016	156	0	..	*156	0	0	0
	2017	82	52	..	*134	..	0	0
	2018	38	80	..	*118	..	0	0
	2019	*39	*81	..	*120	..	0	0
Togo	2016	..	50	..	53	-3	0	0
	2017	..	52	..	54	-2	0	0
	2018	..	59	..	62	-3	0	0
	2019	..	59	..	65	..	-6	-1
Tunisia	2016	..	225	..	215	7	3	0
	2017	..	250	..	251	-10	9	1
	2018	..	284	..	284	8	-8	-1
	2019	..	302	..	300	-12	15	1
Uganda	2016	..	98	..	98	..	0	0
	2017	..	102	..	102	..	0	0
	2018	..	108	..	108	..	0	0
	2019	..	111	..	111	..	0	0

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
United Rep. of Tanzania	2016	..	185	..	115	..	70	1
	2017	..	154	..	133	..	21	0
	2018	..	152	..	131	..	21	0
	2019	..	163	..	139	..	24	0
Zambia	2016	9	17	..	27	..	0	0
	2017	0	23	..	26	..	-2	0
	2018	11	18	..	29	..	0	0
	2019	2	26	..	29	..	-2	0
Zimbabwe	2016	..	39	..	39	..	0	0
	2017	..	49	..	49	..	0	0
	2018	..	60	..	60	..	0	0
	2019	..	51	..	51	..	0	0
<b>America, North</b>	<b>2016</b>	<b>84,701</b>	<b>13,925</b>	<b>9,491</b>	<b>30,046</b>	<b>621</b>	<b>58,468</b>	<b>102</b>
	<b>2017</b>	<b>87,405</b>	<b>15,323</b>	<b>10,548</b>	<b>30,442</b>	<b>34</b>	<b>61,705</b>	<b>107</b>
	<b>2018</b>	<b>91,630</b>	<b>14,793</b>	<b>12,391</b>	<b>31,194</b>	<b>529</b>	<b>62,309</b>	<b>107</b>
	<b>2019</b>	<b>90,338</b>	<b>17,052</b>	<b>12,004</b>	<b>31,558</b>	<b>-492</b>	<b>64,320</b>	<b>110</b>
Antigua and Barbuda	2016	..	*77	..	*65	..	*12	*124
	2017	..	*77	..	*65	..	*12	*123
	2018	..	*78	..	*66	..	*12	*123
	2019	..	*78	..	*66	..	*12	*122
Aruba	2016	..	*85	..	*85	..	0	0
	2017	..	*88	..	*88	..	0	0
	2018	..	*89	..	*89	..	0	0
	2019	..	*90	..	*90	..	0	0
Bahamas	2016	..	27	..	*26	..	1	3
	2017	..	30	..	*29	..	1	3
	2018	..	42	..	*39	..	3	7
	2019	..	54	..	*51	..	3	8
Barbados	2016	..	*121	..	*121	..	0	0
	2017	..	*133	..	*133	..	0	0
	2018	..	*110	..	*110	..	0	0
	2019	..	*149	..	*149	..	0	0
Belize	2016	..	16	..	15	..	0	1
	2017	..	15	..	15	..	0	1
	2018	..	15	..	14	..	0	1
	2019	..	26	..	25	..	0	1
Bermuda	2016	..	*14	..	*14	..	0	0
	2017	..	*15	..	*15	..	0	0
	2018	..	*16	..	*16	..	0	0
	2019	..	*16	..	*16	..	0	0
Bonaire, St Eustatius, Saba	2016	..	*3	..	*3	..	0	0
	2017	..	*3	..	*3	..	0	0
	2018	..	*3	..	*3	..	0	0
	2019	..	*3	..	*3	..	0	0
Canada	2016	4,578	2,675	497	595	-1	6,162	169
	2017	5,661	2,355	1,102	598	25	6,291	171
	2018	5,540	2,895	1,144	838	64	6,389	172
	2019	5,575	3,149	1,060	806	-166	7,024	188
Cayman Islands	2016	..	37	..	36	..	2	30
	2017	..	40	..	38	..	2	32
	2018	..	39	..	37	..	2	30
	2019	..	35	..	34	..	2	26

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Costa Rica	2016	..	195	..	189	-9	15	3
	2017	..	224	..	187	21	16	3
	2018	..	217	..	209	-7	15	3
	2019	..	248	..	223	11	14	3
Cuba	2016	42	273	*3	180	..	132	12
	2017	68	508	*299	159	..	117	10
	2018	66	474	*421	75	..	44	4
	2019	83	369	*365	*58	..	28	2
Curaçao	2016	574	57	573	58	..	0	0
	2017	286	58	285	59	..	0	0
	2018	215	57	214	58	..	0	0
	2019	0	59	0	59	..	0	0
Dominica	2016	..	*1	..	*1	..	0	0
	2017	..	*1	..	*1	..	0	0
	2018	..	*1	..	*1	..	0	0
	2019	..	*1	..	*1	..	0	0
Dominican Republic	2016	204	305	..	496	-1	14	1
	2017	154	392	..	539	-1	8	1
	2018	189	376	..	544	-1	23	2
	2019	193	316	..	457	-1	54	5
El Salvador	2016	..	167	1	166	..	0	0
	2017	..	171	6	165	..	0	0
	2018	..	181	7	174	..	0	0
	2019	..	187	3	183	..	0	0
Greenland	2016	..	17	..	..	1	17	293
	2017	..	28	..	..	9	19	333
	2018	..	*16	..	..	..	*16	*276
	2019	..	*16	..	..	..	*16	*283
Grenada	2016	..	7	..	7	..	0	1
	2017	..	8	..	7	..	0	1
	2018	..	8	..	8	..	0	0
	2019	..	9	..	9	..	0	0
Guatemala	2016	..	62	2	59	..	1	0
	2017	..	101	3	97	..	1	0
	2018	..	90	6	105	-23	2	0
	2019	..	105	4	101	..	0	0
Haiti	2016	..	27	..	22	..	5	0
	2017	..	27	..	22	..	5	0
	2018	..	28	..	22	..	5	0
	2019	..	27	..	22	..	5	0
Honduras	2016	..	20	..	..	..	20	2
	2017	..	57	..	..	..	57	6
	2018	..	56	..	..	..	56	6
	2019	..	61	..	..	..	61	6
Jamaica	2016	74	125	..	202	-4	1	0
	2017	50	172	..	172	8	42	14
	2018	61	148	..	210	-4	3	1
	2019	60	150	..	211	-5	4	1
Mexico	2016	1,958	1,547	0	3,487	33	-15	0
	2017	1,884	1,987	0	3,733	12	126	1
	2018	1,589	2,534	2	3,917	259	-55	0
	2019	1,234	2,649	..	3,905	-323	301	2

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Nicaragua	2016	28	2	..	22	1	7	1
	2017	29	2	..	25	0	6	1
	2018	18	1	..	16	-1	3	0
	2019	17	1	..	16	0	2	0
Panama	2016	..	791	..	676	44	71	17
	2017	..	883	..	687	103	94	23
	2018	..	960	..	724	180	55	13
	2019	..	835	..	761	51	23	5
Sint Maarten (Dutch part)	2016	..	*51	..	*51	..	0	0
	2017	..	*49	..	*49	..	0	0
	2018	..	*48	..	*48	..	0	0
	2019	..	*48	..	*48	..	0	0
St. Lucia	2016	..	*28	..	26	..	*1	*8
	2017	..	*30	..	29	..	*2	*8
	2018	..	*30	..	29	..	*2	*8
	2019	..	*30	..	*29	..	*2	*8
Trinidad and Tobago	2016	669	0	253	309	0	107	78
	2017	509	2	183	224	7	97	70
	2018	397	..	148	181	-14	82	59
	2019	..	358	101	170	-27	113	81
Turks and Caicos Islands	2016	..	*22	..	*22	..	0	0
	2017	..	*24	..	*24	..	0	0
	2018	..	*25	..	*25	..	0	0
	2019	..	*25	..	*25	..	0	0
United States	2016	76,575	7,174	8,162	23,114	557	51,916	161
	2017	78,766	7,843	8,670	23,279	-150	54,811	169
	2018	83,556	6,258	10,449	23,638	75	55,652	170
	2019	83,176	7,958	10,470	24,040	-32	56,655	172
<b>America, South</b>	<b>2016</b>	<b>10,640</b>	<b>2,028</b>	<b>2,002</b>	<b>5,334</b>	<b>-700</b>	<b>6,033</b>	<b>15</b>
	<b>2017</b>	<b>10,629</b>	<b>1,959</b>	<b>1,678</b>	<b>5,154</b>	<b>-547</b>	<b>6,303</b>	<b>15</b>
	<b>2018</b>	<b>10,915</b>	<b>2,110</b>	<b>1,199</b>	<b>5,388</b>	<b>-246</b>	<b>6,683</b>	<b>16</b>
	<b>2019</b>	<b>10,873</b>	<b>2,178</b>	<b>881</b>	<b>5,345</b>	<b>77</b>	<b>6,748</b>	<b>16</b>
Argentina	2016	1,298	129	2	925	-8	508	12
	2017	1,434	97	5	982	5	539	12
	2018	1,461	167	3	893	-8	740	17
	2019	1,466	221	5	882	-11	811	18
Bolivia (Plur. State of)	2016	189	..	..	81	6	102	9
	2017	190	..	..	79	7	104	9
	2018	179	..	..	77	2	100	9
	2019	177	..	..	72	5	100	9
Brazil	2016	4,729	775	96	2,158	-54	3,304	16
	2017	5,041	467	97	2,110	63	3,238	16
	2018	5,200	730	366	2,392	-205	3,377	16
	2019	4,916	883	88	2,317	90	3,304	16
Chile	2016	556	605	0	548	38	575	32
	2017	592	627	0	579	13	628	34
	2018	635	610	..	636	-21	630	34
	2019	880	472	..	721	10	619	33
Colombia	2016	1,033	109	0	..	..	1,142	24
	2017	1,124	136	33	..	..	1,227	25
	2018	1,227	48	11	..	..	1,263	25
	2019	1,224	65	9	..	..	1,279	25

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Ecuador	2016	342	4	..	229	-2	118	7
	2017	393	4	..	248	-4	154	9
	2018	365	4	..	251	-3	122	7
	2019	360	4	..	258	-10	116	7
Falkland Is. (Malvinas)	2016	..	0	..	..	..	0	61
	2017	..	0	..	..	..	0	61
	2018	..	0	..	..	..	0	62
	2019	..	0	..	..	..	0	58
Guyana	2016	..	17	..	16	..	1	1
	2017	..	18	..	18	..	1	1
	2018	..	18	..	17	..	1	1
	2019	..	17	..	17	..	1	1
Paraguay	2016	..	49	..	45	..	3	0
	2017	..	64	..	60	..	3	1
	2018	..	74	..	72	-1	3	0
	2019	..	74	..	71	0	4	1
Peru	2016	639	295	630	950	-695	49	2
	2017	620	442	662	678	-617	338	11
	2018	625	412	0	677	-6	366	11
	2019	686	396	..	706	-7	382	12
Suriname	2016	..	44	..	*39	..	4	8
	2017	..	45	..	*41	..	5	8
	2018	..	*45	..	*41	..	*5	*8
	2019	..	44	..	*39	..	5	8
Uruguay	2016	114	1	..	96	15	5	1
	2017	31	59	..	98	-14	6	2
	2018	105	2	..	105	-3	5	1
	2019	100	1	..	97	-1	5	2
Venezuela (Bolivar. Rep.)	2016	1,741	..	1,274	246	0	221	7
	2017	1,204	..	881	263	0	60	2
	2018	1,119	..	819	229	..	71	2
	2019	1,064	..	779	164	..	122	4
<b>Asia</b>	<b>2016</b>	<b>148,004</b>	<b>27,166</b>	<b>58,910</b>	<b>73,304</b>	<b>2,085</b>	<b>40,872</b>	<b>9</b>
	<b>2017</b>	<b>156,880</b>	<b>28,019</b>	<b>60,763</b>	<b>76,777</b>	<b>1,062</b>	<b>46,296</b>	<b>10</b>
	<b>2018</b>	<b>167,753</b>	<b>27,124</b>	<b>63,177</b>	<b>81,111</b>	<b>1,308</b>	<b>49,279</b>	<b>11</b>
	<b>2019</b>	<b>171,506</b>	<b>20,988</b>	<b>60,806</b>	<b>82,094</b>	<b>343</b>	<b>49,251</b>	<b>11</b>
Afghanistan	2016	..	111	..	*22	..	89	3
	2017	..	338	..	*61	..	277	8
	2018	..	299	..	*54	..	245	7
	2019	..	53	..	*10	..	44	1
Armenia	2016	..	44	..	44	..	0	0
	2017	..	54	..	54	..	0	0
	2018	..	62	..	62	..	0	0
	2019	..	69	..	69	..	0	0
Azerbaijan	2016	627	..	236	175	-15	231	24
	2017	588	82	181	159	-1	331	34
	2018	708	96	305	109	30	361	36
	2019	667	67	120	313	1	300	30
Bahrain	2016	3,175	..	2,636	435	72	32	22
	2017	3,116	..	2,678	447	-36	27	18
	2018	3,116	..	2,559	483	38	36	23
	2019	3,097	..	2,533	508	33	23	14

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bangladesh	2016	1	354	..	347	..	8	0
	2017	1	394	..	377	..	18	0
	2018	1	407	..	408	..	0	0
	2019	..	427	..	430	..	-4	0
Bhutan	2016	..	3	..	*3	..	0	0
	2017	..	3	..	*3	..	0	0
	2018	..	4	..	*4	..	0	0
	2019	..	4	..	*4	..	0	0
Brunei Darussalam	2016	45	26	0	74	-2	-1	-2
	2017	46	30	0	71	2	3	7
	2018	56	26	0	81	0	1	2
	2019	248	55	144	108	51	0	0
Cambodia	2016	..	103	..	72	..	31	2
	2017	..	149	..	103	..	46	3
	2018	..	197	..	136	..	60	4
	2019	..	245	..	169	..	75	5
China	2016	39,081	3,494	13,099	8,363	156	20,957	15
	2017	41,797	3,714	13,132	9,285	-127	23,221	16
	2018	47,216	4,062	14,670	10,097	565	25,946	18
	2019	52,502	2,826	17,610	10,590	..	27,128	19
China, Hong Kong SAR	2016	..	6,379	0	6,262	108	10	1
	2017	..	6,305	0	6,620	-326	11	1
	2018	..	6,691	0	6,838	-156	8	1
	2019	..	6,080	..	6,187	-113	6	1
Cyprus	2016	..	290	16	263	11	0	0
	2017	..	290	0	298	-8	0	0
	2018	..	306	..	308	2	-4	-3
	2019	..	298	..	295	-5	9	7
Georgia	2016	..	71	..	71	-1	1	0
	2017	..	101	..	95	5	1	0
	2018	..	102	..	103	-1	0	0
	2019	..	102	..	101	0	1	0
India	2016	*13,828	*338	*7,270	*4,899	*57	*1,940	*1
	2017	14,594	291	7,183	*3,792	*10	3,900	3
	2018	*15,461	*259	*7,389	*4,129	*98	*4,104	*3
	2019	*15,212	*65	*6,906	*3,979	71	*4,321	*3
Indonesia	2016	2,599	890	2	775	..	2,712	10
	2017	2,613	1,673	2	964	..	3,320	13
	2018	2,993	1,231	2	1,033	..	3,188	12
	2019	3,389	227	102	916	0	2,598	10
Iran (Islamic Rep. of)	2016	1,505	*1	..	*690	..	816	10
	2017	1,592	*1	..	*689	..	904	11
	2018	1,633	*1	..	*795	..	839	10
	2019	1,597	*1	..	844	..	753	9
Iraq	2016	211	448	..	659	..	0	0
	2017	247	392	..	639	..	0	0
	2018	212	407	..	619	..	0	0
	2019	236	408	..	644	..	0	0
Israel	2016	934	..	..	911	..	23	3
	2017	1,127	..	..	1,021	..	107	13
	2018	1,325	..	..	1,087	..	238	28
	2019	1,420	..	..	1,122	..	298	35

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Japan	2016	12,461	653	2,697	6,353	-3	4,067	32
	2017	11,501	1,262	2,071	6,652	61	3,979	31
	2018	12,194	1,184	2,495	6,840	-111	4,153	33
	2019	12,238	164	2,449	5,860	7	4,086	32
Jordan	2016	291	64	..	87	22	245	26
	2017	287	125	..	63	20	329	34
	2018	336	67	..	57	-13	358	36
	2019	330	74	..	*58	..	346	34
Kazakhstan	2016	*264	*151	*15	*330	3	*67	*4
	2017	302	263	17	*477	7	64	4
	2018	387	232	21	615	-1	-16	-1
	2019	629	40	26	619	24	-1	0
Korea, Republic of	2016	20,277	..	14,042	4,632	248	1,355	27
	2017	21,944	..	15,160	4,742	179	1,863	36
	2018	21,571	..	14,560	4,996	79	1,936	38
	2019	21,544	0	14,480	5,300	104	1,660	32
Kuwait	2016	2,184	..	1,459	725	..	0	0
	2017	1,731	..	821	909	..	1	0
	2018	1,855	..	941	914	..	0	0
	2019	1,573	..	635	938	..	0	0
Kyrgyzstan	2016	..	181	55	103	-3	26	4
	2017	..	80	57	19	1	3	0
	2018	..	75	67	4	-2	6	1
	2019	..	63	55	*5	-3	6	1
Lao People's Dem. Rep.	2016	..	52	..	41	..	11	2
	2017	..	46	..	36	..	10	1
	2018	..	69	..	58	..	11	2
	2019	..	*49	..	*36	..	*13	*2
Lebanon	2016	..	244	..	*244	..	0	0
	2017	..	270	..	*270	..	0	0
	2018	..	264	..	*264	..	0	0
	2019	..	270	..	*270	..	0	0
Malaysia	2016	2,469	1,404	1,035	2,339	-97	596	19
	2017	3,152	1,167	1,288	2,494	-3	540	17
	2018	3,342	517	801	2,418	1	639	20
	2019	3,165	818	835	2,620	..	529	17
Maldives	2016	..	*31	..	*15	..	*16	*33
	2017	..	42	..	*20	..	22	44
	2018	..	39	..	*20	..	19	37
	2019	..	43	..	*21	..	22	41
Mongolia	2016	..	25	..	19	..	6	2
	2017	..	34	..	27	..	7	2
	2018	..	40	..	37	..	3	1
	2019	..	47	..	*40	..	7	2
Myanmar	2016	16	201	..	89	-14	142	3
	2017	15	191	..	71	-2	137	3
	2018	11	172	..	70	1	112	2
	2019	12	201	..	72	..	141	3
Nepal	2016	..	128	..	128	..	0	0
	2017	..	153	..	127	..	26	1
	2018	..	155	..	124	..	31	1
	2019	..	106	..	90	..	16	1



Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Oman	2016	666	..	136	520	..	10	2
	2017	923	..	282	557	..	84	18
	2018	1,715	..	1,111	418	..	186	39
	2019	1,804	..	1,053	605	..	146	29
Other Asia	2016	3,729	211	912	2,745	36	247	10
	2017	3,780	106	829	2,845	-11	223	9
	2018	4,087	148	959	2,908	1	367	15
	2019	4,111	36	932	3,006	-84	294	12
Pakistan	2016	879	158	127	240	0	670	3
	2017	914	250	220	*250	..	693	3
	2018	783	222	171	*209	..	625	3
	2019	799	184	41	*250	..	692	3
Philippines	2016	1,020	880	..	1,313	8	578	6
	2017	913	1,149	..	1,601	-2	463	4
	2018	1,040	1,201	..	1,647	38	556	5
	2019	810	1,506	..	1,640	-20	695	6
Qatar	2016	3,447	..	154	1,719	1,574	0	0
	2017	5,230	..	1,249	3,294	687	0	0
	2018	5,858	..	1,248	4,332	278	0	0
	2019	5,532	..	929	4,603	0	0	0
Saudi Arabia	2016	4,271	..	679	2,803	..	789	24
	2017	4,321	..	270	3,070	..	981	30
	2018	4,572	..	325	3,446	..	801	24
	2019	*4,043	..	*288	*3,433	..	*322	*9
Singapore	2016	10,175	2,974	5,843	*7,305	..	0	0
	2017	11,864	3,086	7,413	*7,537	..	0	0
	2018	11,862	1,300	5,018	*8,144	..	0	0
	2019	11,347	1,278	4,731	*7,893	..	0	0
Sri Lanka	2016	148	337	..	523	-42	3	0
	2017	236	282	..	540	-31	9	0
	2018	237	461	..	501	-28	225	11
	2019	259	398	..	501	-4	159	7
Syrian Arab Republic	2016	211	..	138	7	..	66	4
	2017	234	..	147	8	..	79	5
	2018	219	..	139	8	..	72	4
	2019	190	..	124	6	..	59	3
Tajikistan	2016	..	35	..	35	..	0	0
	2017	..	18	..	18	..	0	0
	2018	..	29	..	29	..	0	0
	2019	..	40	..	40	..	0	0
Thailand	2016	5,262	66	417	3,971	62	878	13
	2017	5,573	37	568	4,149	-13	905	13
	2018	6,097	42	756	4,484	64	835	12
	2019	5,710	286	625	4,612	8	750	11
Timor-Leste	2016	..	3	..	*3	..	0	0
	2017	..	4	..	*4	..	0	0
	2018	..	3	..	*3	..	0	0
	2019	..	3	..	*3	..	0	0
Turkey	2016	4,504	337	196	3,334	-32	1,343	17
	2017	4,837	194	314	3,454	69	1,194	15
	2018	4,787	482	110	3,698	222	1,239	15
	2019	5,964	353	706	4,289	149	1,173	14

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Turkmenistan	2016	470	..	..	470	..	0	0
	2017	470	..	..	470	..	0	0
	2018	470	..	..	470	..	0	0
	2019	470	..	..	470	..	0	0
United Arab Emirates	2016	12,664	3,017	6,765	8,269	..	647	69
	2017	12,398	1,521	5,992	7,391	451	85	9
	2018	12,931	1,684	8,476	6,827	..	-689	-71
	2019	11,829	..	4,292	7,173	..	364	37
Uzbekistan	2016	183	2	..	*91	..	93	3
	2017	146	0	..	*73	..	74	2
	2018	193	0	..	*90	..	103	3
	2019	157	3	51	*69	-4	45	1
Viet Nam	2016	383	3,463	960	781	-64	2,169	23
	2017	352	3,923	859	926	130	2,360	25
	2018	444	4,588	1,016	1,129	205	2,682	28
	2019	559	4,101	1,080	1,277	127	2,176	23
Yemen	2016	26	..	*20	6	..	0	0
	2017	34	..	*28	6	..	0	0
	2018	41	..	*36	6	-1	0	0
	2019	65	..	*59	7	..	0	0
<b>Europe</b>	<b>2016</b>	<b>46,376</b>	<b>35,386</b>	<b>18,228</b>	<b>52,971</b>	<b>25</b>	<b>10,537</b>	<b>14</b>
	<b>2017</b>	<b>49,291</b>	<b>36,884</b>	<b>19,220</b>	<b>57,259</b>	<b>-598</b>	<b>10,293</b>	<b>14</b>
	<b>2018</b>	<b>52,839</b>	<b>39,077</b>	<b>21,764</b>	<b>59,439</b>	<b>251</b>	<b>10,461</b>	<b>14</b>
	<b>2019</b>	<b>52,785</b>	<b>40,254</b>	<b>21,503</b>	<b>60,375</b>	<b>622</b>	<b>10,540</b>	<b>14</b>
Albania	2016	..	10	..	6	3	1	0
	2017	..	17	..	*6	10	1	0
	2018	..	16	..	6	9	1	0
	2019	..	32	..	18	11	3	1
Austria	2016	652	140	25	738	-2	31	4
	2017	613	148	30	713	-11	29	3
	2018	761	84	20	803	-8	30	3
	2019	894	52	29	923	-37	30	3
Belarus	2016	329	21	199	119	10	22	2
	2017	401	15	260	126	8	22	2
	2018	370	18	210	144	16	18	2
	2019	463	23	297	186	-12	15	2
Belgium	2016	1,666	490	770	1,401	-39	24	2
	2017	1,942	1,476	1,787	1,540	-11	102	9
	2018	1,842	1,627	1,591	1,642	144	92	8
	2019	2,195	1,427	2,126	1,660	58	-221	-19
Bosnia and Herzegovina	2016	..	10	..	10	..	0	0
	2017	..	10	..	10	..	0	0
	2018	..	7	..	7	..	0	0
	2019	..	9	..	9	..	0	0
Bulgaria	2016	207	33	20	207	-3	16	2
	2017	265	15	25	232	2	20	3
	2018	259	24	18	249	-3	20	3
	2019	232	34	8	236	7	15	2
Croatia	2016	116	22	10	118	..	10	2
	2017	131	31	15	141	-5	10	2
	2018	192	26	10	176	22	10	2
	2019	158	48	16	190	-10	10	2

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Czechia	2016	60	276	..	306	-11	41	4
	2017	180	210	1	343	-10	56	5
	2018	181	257	4	396	..	38	4
	2019	216	257	8	405	14	46	4
Denmark	2016	130	1,063	84	910	114	85	15
	2017	122	927	179	939	-134	64	11
	2018	113	944	57	984	-34	49	9
	2019	121	1,012	12	1,006	64	50	9
Estonia	2016	..	64	19	45	0	0	0
	2017	..	78	19	58	..	1	1
	2018	..	71	2	68	..	1	1
	2019	..	68	..	67	..	1	1
Finland	2016	572	308	6	621	-2	255	46
	2017	755	160	7	658	-4	254	46
	2018	794	166	2	753	16	189	34
	2019	750	259	1	812	-8	204	37
France	2016	3,790	4,600	1,031	5,364	41	1,954	29
	2017	4,257	4,413	1,216	5,452	137	1,865	28
	2018	4,186	5,761	1,944	5,642	138	2,223	33
	2019	3,889	6,053	1,745	5,931	-92	2,358	35
Germany	2016	5,317	5,014	864	8,429	36	1,002	12
	2017	5,347	5,935	1,296	9,319	-81	748	9
	2018	5,101	6,547	1,356	9,611	-70	751	9
	2019	5,077	6,797	1,401	9,532	120	821	10
Gibraltar	2016	..	8	..	8	..	0	0
	2017	..	8	..	8	..	0	0
	2018	..	6	..	6	..	0	0
	2019	..	8	..	8	..	0	0
Greece	2016	2,328	166	1,229	856	65	344	32
	2017	2,431	221	1,384	961	-33	340	32
	2018	3,136	51	1,694	1,061	86	347	33
	2019	2,813	150	1,559	1,101	-63	367	35
Hungary	2016	199	15	11	186	9	8	1
	2017	236	1	8	216	4	9	1
	2018	297	1	22	267	-1	10	1
	2019	300	18	39	270	-1	10	1
Iceland	2016	..	321	..	291	12	18	54
	2017	..	346	..	364	-7	-11	-34
	2018	..	423	..	408	24	-8	-23
	2019	..	278	..	303	-20	-5	-16
Ireland	2016	..	1,066	0	822	1	243	52
	2017	..	1,230	0	965	7	258	54
	2018	..	1,465	148	1,042	-78	353	73
	2019	..	1,491	60	1,054	76	300	62
Italy	2016	2,047	2,088	66	3,209	14	846	14
	2017	2,218	2,273	226	3,329	34	902	15
	2018	2,770	2,336	337	3,734	75	961	16
	2019	2,706	2,563	333	3,864	62	1,010	17
Kosovo	2016	..	4	..	4	..	0	0
	2017	..	6	..	6	..	0	0
	2018	..	3	..	3	..	0	0
	2019	..	2	..	2	..	0	0

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Latvia	2016	..	122	2	119	0	1	1
	2017	..	137	0	136	0	2	1
	2018	..	150	0	149	0	1	1
	2019	..	154	..	152	0	2	1
Lithuania	2016	1,082	68	200	93	-1	858	297
	2017	1,059	52	213	103	11	784	276
	2018	955	38	253	122	-8	625	223
	2019	996	45	264	119	3	655	237
Luxembourg	2016	..	498	4	493	..	1	2
	2017	..	580	22	558	0	0	0
	2018	..	599	..	597	1	0	0
	2019	..	582	..	583	-2	0	0
Malta	2016	..	121	..	121	-2	2	5
	2017	..	152	..	136	16	1	1
	2018	..	143	..	153	-10	1	2
	2019	..	174	..	160	13	1	1
Montenegro	2016	..	25	6	19	0	0	0
	2017	..	46	26	20	..	0	0
	2018	..	47	21	26	..	0	0
	2019	..	49	28	21	..	0	0
Netherlands	2016	7,556	4,469	8,256	3,754	-82	97	6
	2017	7,654	3,626	7,550	3,863	-210	77	5
	2018	8,929	3,342	8,202	3,909	29	130	8
	2019	8,810	3,445	8,159	3,823	197	76	4
North Macedonia	2016	0	28	13	..	0	15	7
	2017	..	33	13	..	0	20	10
	2018	..	38	15	..	0	23	11
	2019	..	57	30	..	1	27	13
Norway	2016	533	381	20	502	-5	397	76
	2017	763	206	5	524	-31	471	89
	2018	778	230	1	547	38	422	79
	2019	655	250	11	534	5	355	66
Poland	2016	1,183	22	535	665	-20	25	1
	2017	1,119	3	265	828	1	27	1
	2018	1,339	31	343	980	15	32	1
	2019	1,355	24	284	1,048	14	33	1
Portugal	2016	1,237	17	1	1,119	1	133	13
	2017	1,361	67	3	1,247	17	161	16
	2018	1,432	133	22	1,328	36	180	18
	2019	1,346	253	16	1,420	-37	200	20
Republic of Moldova	2016	..	33	..	32	1	0	0
	2017	..	46	..	47	-1	0	0
	2018	..	55	..	54	1	0	0
	2019	..	49	..	48	1	0	0
Romania	2016	398	22	255	248	-8	-75	-4
	2017	381	86	269	292	9	-102	-5
	2018	418	78	326	119	3	49	2
	2019	512	39	370	131	-6	56	3
Russian Federation	2016	*12,030	30	2,432	*4,857	..	*4,771	*33
	2017	12,577	68	2,272	5,399	..	4,974	34
	2018	12,982	15	2,670	5,578	..	4,749	33
	2019	13,176	30	2,405	5,702	..	5,099	35

Table 20

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Serbia	2016	123	5	15	115	-2	0	0
	2017	155	1	27	128	1	0	0
	2018	190	3	52	135	6	0	0
	2019	155	20	39	137	-1	0	0
Slovakia	2016	99	3	60	48	-6	0	0
	2017	76	..	33	39	4	0	0
	2018	95	2	52	46	-1	0	0
	2019	72	5	33	44	..	0	0
Slovenia	2016	..	231	180	21	29	1	0
	2017	..	240	216	25	-2	0	0
	2018	..	232	203	34	-5	0	0
	2019	..	310	265	26	18	0	0
Spain	2016	214	2,191	619	3,984	-156	-2,042	-44
	2017	189	2,244	578	4,349	-271	-2,223	-48
	2018	381	1,802	528	4,531	8	-2,884	-62
	2019	454	1,680	401	4,643	-45	-2,865	-61
Sweden	2016	73	954	70	800	74	83	8
	2017	22	947	16	867	-57	143	14
	2018	204	1,042	92	913	14	227	23
	2019	259	985	147	867	26	204	20
Switzerland	2016	43	1,668	..	1,653	-1	59	7
	2017	7	1,725	..	1,710	-7	29	3
	2018	5	1,858	..	1,795	-7	75	9
	2019	3	1,937	..	1,813	45	83	10
Ukraine	2016	..	..	..	*121	..	*-121	*-3
	2017	..	..	..	263	..	-263	-6
	2018	..	..	..	..	..	..	..
	2019	..	..	..	..	..	..	..
United Kingdom	2016	4,392	8,778	1,226	10,557	-45	1,432	22
	2017	5,031	9,106	1,258	11,342	16	1,521	23
	2018	5,129	9,405	1,572	11,424	-206	1,744	26
	2019	5,178	9,586	1,419	11,526	220	1,599	24
<b>Oceania</b>	<b>2016</b>	<b>4,024</b>	<b>4,962</b>	<b>163</b>	<b>5,071</b>	<b>-2</b>	<b>3,754</b>	<b>93</b>
	<b>2017</b>	<b>4,162</b>	<b>5,220</b>	<b>186</b>	<b>5,548</b>	<b>-20</b>	<b>3,668</b>	<b>89</b>
	<b>2018</b>	<b>4,422</b>	<b>5,532</b>	<b>249</b>	<b>5,883</b>	<b>172</b>	<b>3,648</b>	<b>88</b>
	<b>2019</b>	<b>4,551</b>	<b>5,217</b>	<b>160</b>	<b>6,151</b>	<b>193</b>	<b>3,265</b>	<b>77</b>
American Samoa	2016	..	*8	..	*6	..	*3	*45
	2017	..	*8	..	*6	..	*3	*45
	2018	..	*8	..	*6	..	*3	*45
	2019	..	*8	..	*6	..	*3	*45
Australia	2016	2,759	4,428	4	3,852	41	3,290	136
	2017	2,841	4,640	56	4,212	6	3,207	130
	2018	3,041	4,857	114	4,483	25	3,275	132
	2019	3,162	4,618	16	4,750	183	2,832	112
Cook Islands	2016	..	*9	..	*8	..	*2	*107
	2017	..	*9	..	*8	..	*2	*108
	2018	..	*9	..	*8	..	*2	*108
	2019	..	*10	..	*8	..	*2	*109
Fiji	2016	..	148	159	*24	*-48	12	14
	2017	..	158	129	*30	*-14	12	14
	2018	..	*203	*135	*31	*25	*13	*14
	2019	..	*197	*144	*31	*10	*13	*14

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
French Polynesia	2016	..	*15	..	..	*2	*13	*47
	2017	..	16	..	..	*3	13	48
	2018	..	19	..	..	*5	13	48
	2019	..	21	..	..	*8	14	49
Kiribati	2016	..	1	..	0	..	1	6
	2017	..	1	..	*1	..	1	7
	2018	..	*1	..	*1	..	*1	*7
	2019	..	*1	..	*1	..	*1	*7
Marshall Islands	2016	..	*2	..	*2	..	0	0
	2017	..	*2	..	*2	..	0	0
	2018	..	*2	..	*2	..	0	0
	2019	..	*2	..	*2	..	0	0
Micronesia (Fed. States of)	2016	..	*8	..	*6	..	*1	*12
	2017	..	*8	..	*7	..	*1	*10
	2018	..	*8	..	*7	..	*1	*10
	2019	..	*8	..	*7	..	*1	*10
Nauru	2016	..	5	..	*5	..	0	0
	2017	..	4	..	*4	..	0	0
	2018	..	*4	..	*4	..	0	0
	2019	..	*4	..	*4	..	0	0
New Caledonia	2016	..	31	..	25	1	5	17
	2017	..	31	..	26	-1	6	22
	2018	..	32	..	26	..	6	20
	2019	..	33	..	27	..	6	21
New Zealand	2016	1,159	211	0	1,049	2	319	68
	2017	1,221	275	..	1,161	-15	350	74
	2018	1,325	279	..	1,223	118	263	56
	2019	1,330	201	..	1,222	-8	317	66
Niue	2016	..	*1	..	*1	..	0	*20
	2017	..	*1	..	0	..	0	*15
	2018	..	*1	..	0	..	0	*27
	2019	..	*1	..	0	..	0	*27
Northern Mariana Islands	2016	..	*6	..	*4	..	*2	*36
	2017	..	*7	..	*5	..	*2	*35
	2018	..	*7	..	*5	..	*2	*35
	2019	..	*7	..	*5	..	*2	*35
Palau	2016	..	*11	..	*11	..	0	0
	2017	..	*12	..	*12	..	0	0
	2018	..	*13	..	*13	..	0	0
	2019	..	*14	..	*14	..	0	0
Papua New Guinea	2016	106	63	0	*63	0	106	13
	2017	100	30	..	*58	1	71	8
	2018	56	71	..	59	-1	69	8
	2019	*59	*75	..	*59	0	*75	*8
Solomon Islands	2016	..	*5	..	*4	..	*1	*1
	2017	..	*5	..	*4	..	*1	*1
	2018	..	*5	..	*4	..	*1	*1
	2019	..	*5	..	*4	..	*1	*1
Tonga	2016	..	3	..	*3	0	0	1
	2017	..	5	..	*5	0	0	1
	2018	..	4	..	*4	..	0	2
	2019	..	4	..	*4	..	0	1

Table 20

### Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Vanuatu	2016	..	*7	..	*7	..	0	0
	2017	..	*7	..	*7	..	0	0
	2018	..	*8	..	*8	..	0	0
	2019	..	*8	..	*8	..	0	0
Wallis and Futuna Is.	2016	..	*1	..	1	..	0	0
	2017	..	*1	..	1	..	0	0
	2018	..	*1	..	1	..	0	0
	2019	..	*1	..	1	..	0	0

### Production, trade and supply of gas oil/diesel oil

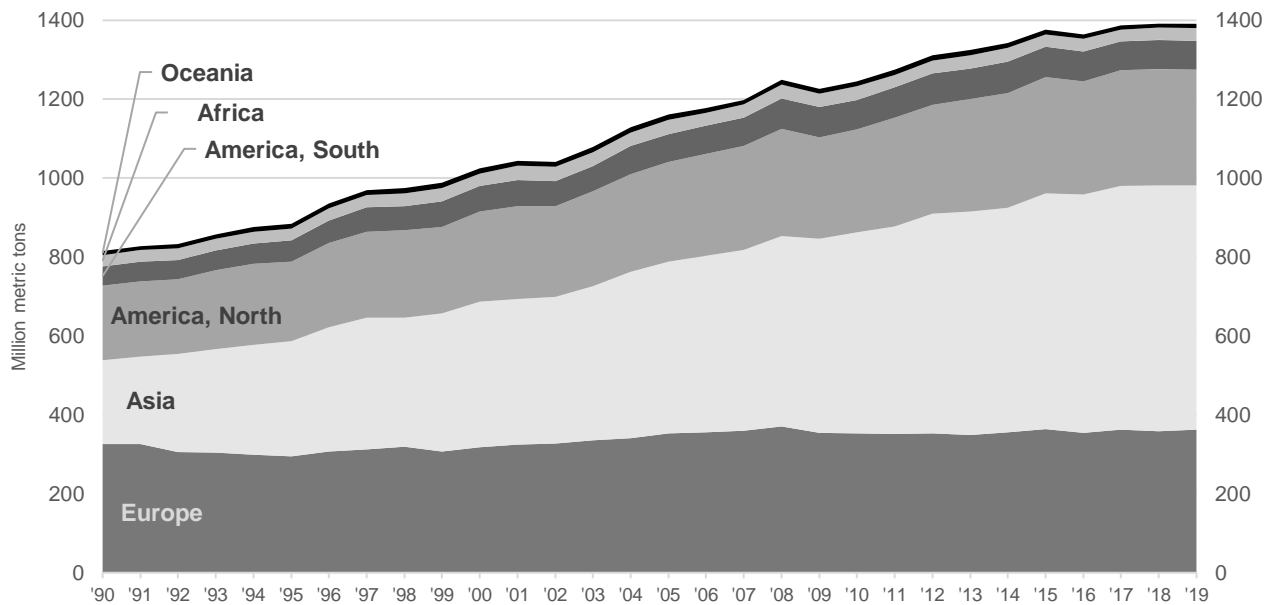
Thousand metric tons and kilograms per capita

#### Table Notes

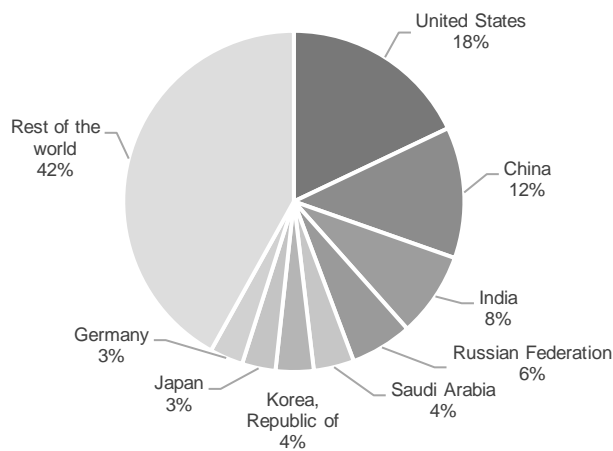
**Production** includes output from refineries and plants, together with quantities from other sources which include any blended biodiesel.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 57: Production of gas oil/diesel oil by region, 1990-2019**



**Figure 58: Major gas oil/diesel oil producing countries, 2019**



**Figure 59: Major gas oil/diesel oil consuming countries, 2019**

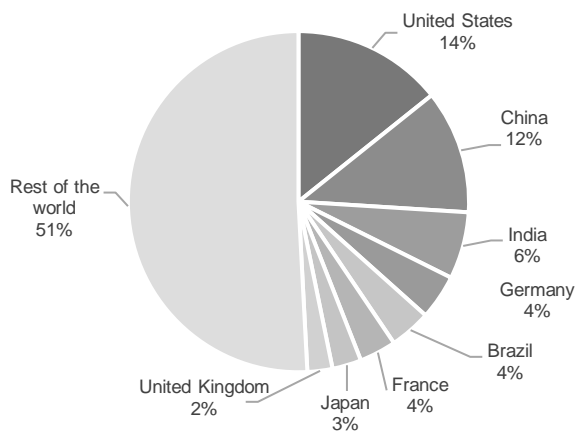




Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
<b>World</b>	<b>2016</b>	<b>1,364,032</b>	<b>392,435</b>	<b>406,261</b>	<b>43,635</b>	<b>3,151</b>	<b>1,303,421</b>	<b>175</b>
	<b>2017</b>	<b>1,386,742</b>	<b>394,557</b>	<b>417,020</b>	<b>46,157</b>	<b>-8,327</b>	<b>1,326,450</b>	<b>176</b>
	<b>2018</b>	<b>1,391,497</b>	<b>391,437</b>	<b>416,065</b>	<b>41,591</b>	<b>-3,406</b>	<b>1,328,684</b>	<b>174</b>
	<b>2019</b>	<b>1,391,054</b>	<b>378,794</b>	<b>426,433</b>	<b>38,507</b>	<b>-250</b>	<b>1,305,158</b>	<b>169</b>
<b>Africa</b>	<b>2016</b>	<b>32,454</b>	<b>51,286</b>	<b>4,197</b>	<b>2,425</b>	<b>-275</b>	<b>77,393</b>	<b>64</b>
	<b>2017</b>	<b>30,608</b>	<b>52,396</b>	<b>3,262</b>	<b>1,686</b>	<b>-455</b>	<b>78,510</b>	<b>63</b>
	<b>2018</b>	<b>31,534</b>	<b>49,795</b>	<b>3,324</b>	<b>2,206</b>	<b>-157</b>	<b>75,957</b>	<b>60</b>
	<b>2019</b>	<b>33,639</b>	<b>52,936</b>	<b>2,770</b>	<b>2,195</b>	<b>-129</b>	<b>81,740</b>	<b>63</b>
Algeria	2016	8,892	1,459	..	57	100	10,194	251
	2017	8,537	1,413	..	64	-186	10,072	243
	2018	10,189	247	..	58	188	10,190	241
	2019	9,590	913	..	10	-23	10,516	244
Angola	2016	599	2,353	30	..	..	2,922	101
	2017	607	2,092	28	..	..	2,671	90
	2018	436	1,096	26	..	*-518	2,024	66
	2019	615	1,326	11	..	..	1,930	61
Benin	2016	..	691	..	..	-34	725	67
	2017	..	760	..	0	-1	761	68
	2018	..	862	..	..	-7	869	76
	2019	..	864	..	0	-10	873	74
Botswana	2016	..	459	..	..	..	459	212
	2017	..	444	..	..	..	444	201
	2018	..	450	..	..	..	450	200
	2019	..	456	..	..	..	456	198
Burkina Faso	2016	..	418	..	..	-145	564	30
	2017	..	522	..	..	-68	590	31
	2018	..	664	..	..	*35	629	32
	2019	..	610	..	..	*-76	686	34
Burundi	2016	..	*56	..	..	0	*56	*5
	2017	..	*66	..	..	..	*66	*6
	2018	..	*78	..	..	..	*78	*7
	2019	..	*81	..	..	..	*81	*7
Cabo Verde	2016	..	*111	..	*35	..	*76	*143
	2017	..	*119	..	37	..	*82	*152
	2018	..	*124	..	*39	..	*85	*157
	2019	..	*125	..	*40	..	*85	*155
Cameroon	2016	572	339	133	..	..	778	33
	2017	471	442	109	..	..	804	33
	2018	427	505	99	..	..	833	33
	2019	221	651	51	..	..	821	32
Central African Rep.	2016	..	*40	..	..	..	*40	*9
	2017	..	*41	..	..	..	*41	*9
	2018	..	*42	..	..	..	*42	*9
	2019	..	*43	..	..	..	*43	*9
Chad	2016	*275	*159	84	..	..	*350	*24
	2017	*272	*152	84	..	..	*340	*23
	2018	*265	*169	86	..	..	*348	*22
	2019	*270	*170	87	..	..	*353	*22
Comoros	2016	..	*40	..	..	..	*40	*50
	2017	..	*46	..	..	..	*46	*57
	2018	..	*50	..	..	..	*50	*60
	2019	..	*55	..	..	..	*55	*65

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2016	168	176	..	..	..	344	69
	2017	214	76	..	..	..	290	57
	2018	217	79	..	..	..	296	56
	2019	221	80	..	..	..	301	56
Côte d'Ivoire	2016	1,237	..	226	72	0	939	39
	2017	*1,222	..	180	69	..	*973	*40
	2018	1,241	..	184	74	..	983	39
	2019	1,411	..	256	79	..	1,076	42
Dem. Rep. of the Congo	2016	..	362	..	..	..	362	5
	2017	..	419	..	..	..	419	5
	2018	..	394	..	..	..	394	5
	2019	..	383	..	..	..	383	4
Djibouti	2016	..	85	..	*10	*9	66	71
	2017	..	80	..	*10	*6	64	67
	2018	..	*80	..	*10	*10	*60	*63
	2019	..	*80	..	*10	*10	*60	*62
Egypt	2016	7,183	7,591	..	31	..	14,743	156
	2017	7,403	7,468	..	30	..	14,841	154
	2018	7,640	6,533	713	62	..	13,398	136
	2019	8,046	5,751	..	58	..	13,740	137
Equatorial Guinea	2016	..	*160	..	..	..	*160	*132
	2017	..	*167	..	..	..	*167	*132
	2018	..	*149	..	..	..	*149	*114
	2019	..	*165	..	..	..	*165	*122
Eritrea	2016	..	85	..	..	..	85	25
	2017	..	107	..	..	..	107	31
	2018	..	119	..	..	..	119	35
	2019	..	123	..	..	..	123	35
Eswatini	2016	..	141	..	..	..	141	127
	2017	..	142	..	..	..	142	127
	2018	..	148	..	..	..	148	130
	2019	..	*157	..	..	..	*157	*137
Ethiopia	2016	..	2,235	..	..	-4	2,239	22
	2017	..	2,513	..	..	-101	2,614	25
	2018	..	2,729	..	..	-30	2,759	25
	2019	..	3,307	..	..	..	3,307	30
Gabon	2016	234	450	6	74	..	604	301
	2017	254	*237	13	32	..	446	216
	2018	233	205	..	30	..	408	193
	2019	189	*301	10	35	..	*445	*205
Gambia	2016	..	94	*1	..	..	93	43
	2017	..	95	*1	..	..	94	43
	2018	..	99	*1	..	..	98	43
	2019	..	*100	*1	..	..	*99	*42
Ghana	2016	255	1,720	170	2	0	1,802	63
	2017	6	1,781	190	89	-14	1,522	52
	2018	114	1,753	35	10	..	1,821	61
	2019	198	1,742	117	7	31	1,784	59
Guinea	2016	..	404	..	..	..	404	34
	2017	..	507	..	..	..	507	42
	2018	..	522	..	..	..	522	42
	2019	..	597	..	..	..	597	47

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2016	..	*51	..	..	..	*51	*29
	2017	..	*51	..	..	..	*51	*28
	2018	..	*54	..	..	..	*54	*29
	2019	..	*55	..	..	..	*55	*29
Kenya	2016	0	3,255	1,025	0	..	2,229	45
	2017	0	2,853	767	..	..	2,086	42
	2018	..	2,324	..	3	..	2,321	45
	2019	..	2,548	..	..	..	2,548	48
Lesotho	2016	..	88	..	..	..	88	43
	2017	..	82	..	..	..	82	39
	2018	..	87	..	..	..	87	41
	2019	..	99	..	..	..	99	47
Liberia	2016	..	*263	..	*9	..	*254	*55
	2017	..	*230	..	*5	..	*225	*48
	2018	..	*197	..	*4	..	*193	*40
	2019	..	*200	..	*4	..	*196	*40
Libya	2016	917	2,161	..	..	..	3,078	474
	2017	1,332	2,044	..	..	..	3,376	513
	2018	1,563	1,816	..	..	..	3,378	506
	2019	1,302	2,061	..	..	..	3,363	496
Madagascar	2016	..	544	..	1	35	508	20
	2017	..	502	..	5	-46	544	21
	2018	..	456	..	2	-42	496	19
	2019	..	550	..	2	14	534	20
Malawi	2016	..	166	..	..	..	166	10
	2017	..	197	..	..	..	197	11
	2018	..	238	..	..	..	238	13
	2019	..	223	..	..	..	223	12
Mali	2016	..	*780	..	..	*30	*750	*42
	2017	..	*820	..	..	*10	*810	*44
	2018	..	*850	..	..	*10	*840	*44
	2019	..	*864	..	..	*10	*854	*43
Mauritania	2016	..	553	..	..	..	553	133
	2017	..	784	..	..	*52	732	171
	2018	..	1,033	..	..	*256	777	176
	2019	..	1,097	..	..	*276	821	181
Mauritius	2016	..	339	..	120	11	208	165
	2017	..	347	..	129	6	212	168
	2018	..	330	..	146	-31	215	169
	2019	..	334	..	141	-29	222	174
Morocco	2016	0	5,536	1	23	-131	5,643	158
	2017	..	5,771	..	23	-118	5,866	162
	2018	..	5,907	..	23	-149	6,033	165
	2019	..	6,056	..	23	-280	6,313	170
Mozambique	2016	..	1,282	..	..	18	1,264	45
	2017	..	967	..	2	..	965	34
	2018	..	1,014	..	8	..	1,006	34
	2019	..	1,011	..	9	..	1,002	33
Namibia	2016	..	807	..	..	..	807	342
	2017	..	819	..	..	..	819	341
	2018	..	776	..	..	..	776	317
	2019	..	760	..	..	..	760	305

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Niger	2016	352	11	202	..	*-92	252	12
	2017	520	20	*253	..	*21	265	12
	2018	492	3	*221	..	*36	238	11
	2019	382	5	*91	..	..	296	13
Nigeria	2016	685	3,833	..	97	..	4,421	24
	2017	900	3,651	..	98	..	4,453	23
	2018	347	3,427	..	103	..	3,672	19
	2019	81	4,186	..	106	..	4,160	21
Rwanda	2016	..	137	..	..	..	137	12
	2017	..	149	..	..	..	149	12
	2018	..	155	..	..	..	155	13
	2019	..	227	..	..	..	227	18
Sao Tome and Principe	2016	..	*27	..	..	..	*27	*133
	2017	..	*28	..	..	..	*28	*136
	2018	..	*29	..	..	..	*29	*136
	2019	..	*29	..	..	..	*29	*136
Senegal	2016	629	1,056	676	134	-63	938	63
	2017	679	*489	84	113	0	971	63
	2018	576	1,002	*356	*130	*124	968	61
	2019	522	1,279	*590	194	-21	1,038	64
Seychelles	2016	..	237	..	*153	*20	64	667
	2017	..	223	..	161	*10	53	546
	2018	..	202	..	*141	0	61	629
	2019	..	183	..	*110	0	73	748
Sierra Leone	2016	..	187	..	..	..	187	25
	2017	..	171	..	..	..	171	23
	2018	..	146	..	..	..	146	19
	2019	..	155	..	..	..	155	20
Somalia	2016	..	*126	..	16	..	*110	*8
	2017	..	*126	..	*16	..	*110	*8
	2018	..	*126	..	*16	..	*110	*7
	2019	..	*126	..	*16	..	*110	*7
South Africa	2016	7,845	3,851	1,642	1,563	..	8,491	151
	2017	*5,861	5,253	1,553	751	..	8,811	155
	2018	5,417	5,311	1,603	1,310	..	7,815	135
	2019	8,539	5,096	1,554	1,312	..	10,769	184
South Sudan	2016	..	417	..	..	..	417	38
	2017	..	350	..	..	..	350	32
	2018	..	363	..	..	..	363	33
	2019	..	393	..	..	..	393	36
St. Helena and Depend.	2016	..	4	..	..	..	4	636
	2017	..	3	..	..	..	3	419
	2018	..	3	..	..	..	3	539
	2019	..	4	..	..	..	4	602
Sudan	2016	1,960	1,199	..	26	..	3,134	79
	2017	1,797	1,612	..	27	..	3,382	83
	2018	1,696	1,609	..	*28	..	3,276	78
	2019	*1,717	*1,629	..	*28	..	*3,318	*77
Togo	2016	..	83	..	..	-10	93	12
	2017	..	161	..	19	-15	157	20
	2018	..	173	..	..	-4	177	22
	2019	..	173	..	..	..	173	21

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tunisia	2016	439	1,505	..	2	-19	1,961	173
	2017	314	1,731	..	7	-11	2,049	179
	2018	407	1,675	..	10	-36	2,108	182
	2019	41	1,914	..	10	-31	1,976	169
Uganda	2016	..	746	..	..	..	746	19
	2017	..	823	..	..	..	823	20
	2018	..	855	..	..	..	855	20
	2019	..	881	..	..	..	881	20
United Rep. of Tanzania	2016	..	1,185	..	..	..	1,185	22
	2017	..	1,271	..	..	..	1,271	23
	2018	..	1,343	..	..	..	1,343	24
	2019	..	1,351	..	..	..	1,351	23
Zambia	2016	213	611	..	..	..	824	50
	2017	217	540	..	..	..	756	45
	2018	274	421	..	..	..	695	40
	2019	294	575	..	..	..	869	49
Zimbabwe	2016	..	619	..	..	..	619	44
	2017	..	642	..	..	..	642	45
	2018	..	777	..	..	..	777	54
	2019	..	790	..	..	..	790	54
<b>America, North</b>	<b>2016</b>	<b>286,198</b>	<b>30,853</b>	<b>68,337</b>	<b>8,172</b>	<b>79</b>	<b>240,464</b>	<b>420</b>
	<b>2017</b>	<b>292,618</b>	<b>33,647</b>	<b>77,529</b>	<b>10,044</b>	<b>-3,267</b>	<b>241,959</b>	<b>419</b>
	<b>2018</b>	<b>294,167</b>	<b>37,008</b>	<b>71,305</b>	<b>8,875</b>	<b>-816</b>	<b>251,812</b>	<b>433</b>
	<b>2019</b>	<b>293,271</b>	<b>36,787</b>	<b>73,192</b>	<b>11,913</b>	<b>-1,450</b>	<b>246,403</b>	<b>420</b>
Anguilla	2016	..	*34	..	..	..	*34	*2,383
	2017	..	*31	..	..	..	*31	*2,125
	2018	..	*32	..	..	..	*32	*2,171
	2019	..	*35	..	..	..	*35	*2,320
Antigua and Barbuda	2016	..	*67	*1	..	..	*66	*698
	2017	..	*67	*1	..	..	*66	*692
	2018	..	*68	*1	..	..	*67	*696
	2019	..	*68	*1	..	..	*67	*690
Aruba	2016	..	*23	..	..	..	*23	*216
	2017	..	*24	..	..	..	*24	*223
	2018	..	*24	..	..	..	*24	*224
	2019	..	*24	..	..	..	*24	*225
Bahamas	2016	..	310	..	..	-193	503	1,331
	2017	..	334	..	..	*-144	478	1,252
	2018	..	403	..	..	*-117	520	1,348
	2019	..	585	..	..	*46	539	1,384
Barbados	2016	..	68	..	..	0	68	237
	2017	..	73	..	..	-1	74	257
	2018	..	68	..	..	-6	74	260
	2019	..	78	..	..	0	78	273
Belize	2016	..	84	..	..	..	84	229
	2017	..	78	..	..	..	78	207
	2018	..	69	..	..	..	69	180
	2019	..	88	..	..	..	88	227
Bermuda	2016	..	24	..	..	-10	34	534
	2017	..	70	..	..	*15	55	872
	2018	..	37	..	..	0	37	591
	2019	..	29	..	..	0	29	461

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bonaire, St Eustatius, Saba	2016	..	*22	..	*11	*4	*6	*253
	2017	..	*25	..	*12	*7	*7	*257
	2018	..	*14	..	*11	*-3	*7	*264
	2019	..	*14	..	*11	*-4	*7	*266
British Virgin Islands	2016	..	*50	..	..	..	*50	*1,703
	2017	..	*40	..	..	..	*40	*1,363
	2018	..	*38	..	..	..	*38	*1,275
	2019	..	*40	..	..	..	*40	*1,332
Canada	2016	30,317	2,086	6,728	88	-273	25,860	711
	2017	32,905	1,079	8,027	87	156	25,714	700
	2018	30,618	2,164	6,397	85	121	26,179	706
	2019	33,325	1,194	7,627	110	-751	27,533	736
Cayman Islands	2016	..	135	..	..	..	135	2,158
	2017	..	142	..	..	..	142	2,240
	2018	..	144	..	..	..	144	2,242
	2019	..	164	..	..	..	164	2,524
Costa Rica	2016	..	992	..	..	-20	1,012	207
	2017	..	1,045	..	..	9	1,037	209
	2018	..	1,014	..	..	-12	1,026	205
	2019	..	1,017	..	..	-14	1,032	204
Cuba	2016	558	1,277	*176	*31	..	1,629	144
	2017	714	1,378	*356	*29	..	1,707	151
	2018	703	1,178	*257	*30	..	1,595	141
	2019	*632	*1,130	*304	*32	..	*1,426	*126
Curaçao	2016	1,611	524	1,598	199	..	338	2,099
	2017	845	517	838	199	..	325	2,006
	2018	641	535	636	199	..	341	2,097
	2019	0	592	0	200	..	392	2,400
Dominica	2016	..	*30	..	..	*-1	*31	*431
	2017	..	*29	..	..	*2	*27	*380
	2018	..	*29	..	..	*2	*27	*374
	2019	..	*31	..	..	*2	*29	*403
Dominican Republic	2016	316	1,193	..	..	-22	1,532	147
	2017	274	1,072	..	..	28	1,318	125
	2018	356	1,094	..	..	0	1,450	136
	2019	328	1,215	..	..	0	1,543	144
El Salvador	2016	..	678	24	..	..	654	103
	2017	..	687	19	..	..	668	105
	2018	..	702	8	..	..	694	108
	2019	..	722	3	..	..	719	111
Greenland	2016	..	136	..	16	1	118	2,100
	2017	..	135	..	18	-2	120	2,122
	2018	..	*122	..	*17	..	*105	*1,852
	2019	..	*124	..	*17	..	*107	*1,897
Grenada	2016	..	63	..	..	4	59	535
	2017	..	66	..	..	4	61	552
	2018	..	68	..	..	0	68	610
	2019	..	76	..	..	..	76	678
Guatemala	2016	43	1,750	67	393	25	1,307	79
	2017	47	1,685	18	412	-18	1,321	78
	2018	50	1,642	6	423	-93	1,357	79
	2019	57	1,883	9	423	33	1,475	84

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Haiti	2016	..	520	..	..	..	520	48
	2017	..	510	..	..	..	510	46
	2018	..	539	..	..	..	539	48
	2019	..	481	..	..	..	481	43
Honduras	2016	..	946	3	..	38	905	98
	2017	..	935	..	..	76	859	91
	2018	..	915	2	..	35	878	92
	2019	..	933	20	..	..	912	94
Jamaica	2016	130	263	..	30	-17	380	131
	2017	108	250	..	51	12	295	101
	2018	102	316	39	44	-3	338	115
	2019	125	338	..	61	-2	404	137
Mexico	2016	11,580	9,291	749	798	-301	19,625	159
	2017	11,165	12,680	192	712	-185	23,126	185
	2018	8,485	13,804	195	729	78	21,287	169
	2019	8,964	12,167	601	705	-422	20,247	159
Montserrat	2016	..	7	..	*1	..	6	1,185
	2017	..	6	..	*1	..	5	902
	2018	..	6	..	*1	..	5	981
	2019	..	5	..	*1	..	4	862
Nicaragua	2016	137	476	0	..	8	605	96
	2017	169	461	0	..	-12	642	101
	2018	210	379	..	..	-2	592	92
	2019	233	351	0	..	7	576	88
Panama	2016	..	1,100	..	..	-59	1,159	287
	2017	..	1,162	..	..	-204	1,366	333
	2018	..	1,171	..	..	-125	1,295	310
	2019	..	1,211	..	..	-18	1,229	289
Sint Maarten (Dutch part)	2016	..	*166	..	*66	..	*101	*2,465
	2017	..	*162	..	*63	..	*99	*2,379
	2018	..	*158	..	*61	..	*96	*2,294
	2019	..	*159	..	*62	..	*97	*2,291
St. Kitts-Nevis	2016	..	*58	..	..	..	*58	*1,125
	2017	..	*59	..	..	..	*59	*1,124
	2018	..	*59	..	..	..	*59	*1,129
	2019	..	*60	..	..	..	*60	*1,136
St. Lucia	2016	..	*110	..	1	..	*109	*607
	2017	..	*114	..	1	..	*113	*625
	2018	..	*116	..	1	..	*114	*629
	2019	..	*118	..	*1	..	*116	*637
St. Pierre-Miquelon	2016	..	*24	..	*6	..	*17	*2,921
	2017	..	*24	..	*6	..	*17	*2,957
	2018	..	*21	..	*5	..	*16	*2,772
	2019	..	*23	..	*5	..	*18	*3,024
St. Vincent-Grenadines	2016	..	48	..	..	*4	44	405
	2017	..	25	..	..	*-11	36	328
	2018	..	46	..	..	*5	41	370
	2019	..	30	..	..	*-9	39	354
Trinidad and Tobago	2016	2,113	..	1,279	334	7	493	358
	2017	1,468	..	771	201	-7	503	364
	2018	1,178	..	638	166	-4	377	272
	2019	..	783	223	58	..	502	360

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Turks and Caicos Islands	2016	..	*70	..	..	..	*70	*1,901
	2017	..	*75	..	..	..	*75	*2,021
	2018	..	*77	..	..	..	*77	*2,031
	2019	..	*77	..	..	..	*77	*2,024
United States	2016	239,393	8,229	57,712	6,198	883	182,829	566
	2017	244,922	8,607	67,307	8,252	-2,993	180,963	557
	2018	251,824	9,958	63,127	7,102	-692	192,244	588
	2019	249,607	10,942	64,404	10,227	-318	186,236	566
<b>America, South</b>	<b>2016</b>	<b>76,862</b>	<b>29,816</b>	<b>1,630</b>	<b>527</b>	<b>1,373</b>	<b>103,146</b>	<b>248</b>
	<b>2017</b>	<b>72,882</b>	<b>31,446</b>	<b>1,984</b>	<b>441</b>	<b>371</b>	<b>101,532</b>	<b>242</b>
	<b>2018</b>	<b>74,047</b>	<b>30,758</b>	<b>2,992</b>	<b>740</b>	<b>-176</b>	<b>101,249</b>	<b>239</b>
	<b>2019</b>	<b>72,661</b>	<b>29,984</b>	<b>2,564</b>	<b>743</b>	<b>-191</b>	<b>99,530</b>	<b>233</b>
Argentina	2016	10,749	3,555	5	69	65	14,165	326
	2017	11,024	3,029	4	115	-9	13,943	317
	2018	10,424	2,685	33	134	11	12,931	291
	2019	10,616	1,951	29	80	-157	12,615	282
Bolivia (Plur. State of)	2016	814	804	..	..	-38	1,656	150
	2017	745	943	..	..	-61	1,749	156
	2018	724	1,059	..	..	-24	1,806	159
	2019	584	1,261	..	..	9	1,835	159
Brazil	2016	42,840	7,360	420	303	217	49,260	239
	2017	39,056	11,259	439	158	97	49,621	239
	2018	41,052	10,124	830	412	-155	50,089	239
	2019	40,713	11,304	48	473	196	51,300	243
Chile	2016	2,907	5,573	57	0	67	8,356	459
	2017	3,073	5,245	23	0	45	8,249	447
	2018	3,052	5,497	7	..	0	8,542	456
	2019	3,077	5,506	17	..	0	8,566	452
Colombia	2016	4,961	3,051	706	..	..	7,305	152
	2017	6,163	1,026	882	..	..	6,307	129
	2018	7,190	621	1,599	..	..	6,212	125
	2019	6,679	1,270	2,132	..	..	5,816	116
Ecuador	2016	1,907	2,443	..	16	-13	4,346	264
	2017	1,902	2,417	..	41	-11	4,289	255
	2018	1,820	2,703	..	56	7	4,460	261
	2019	1,741	2,856	..	50	26	4,521	260
Falkland Is. (Malvinas)	2016	..	7	..	..	..	7	2,540
	2017	..	7	..	..	..	7	2,393
	2018	..	8	..	..	..	8	2,407
	2019	..	8	..	..	..	8	2,385
Guyana	2016	..	323	..	..	0	323	419
	2017	..	323	..	..	-6	329	424
	2018	..	348	..	..	-1	349	448
	2019	..	408	5	..	-4	407	519
Paraguay	2016	..	1,519	..	..	61	1,458	215
	2017	..	1,551	..	..	-59	1,610	234
	2018	..	1,689	..	..	31	1,658	238
	2019	..	1,646	..	..	27	1,618	230
Peru	2016	3,786	3,596	370	..	1,054	5,958	193
	2017	3,569	3,793	536	..	354	6,472	206
	2018	3,236	3,574	444	11	-42	6,398	200
	2019	3,037	3,497	265	19	-255	6,505	200



Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Suriname	2016	206	196	72	16	..	314	555
	2017	293	109	100	7	..	295	517
	2018	301	44	80	6	..	259	449
	2019	311	108	67	*6	..	346	596
Uruguay	2016	814	76	..	62	-40	867	253
	2017	237	698	..	69	21	846	246
	2018	923	14	..	80	-4	861	250
	2019	892	0	..	88	-34	838	242
Venezuela (Bolivar. Rep.)	2016	7,878	1,313	0	61	0	9,130	306
	2017	6,821	1,047	0	51	0	7,817	266
	2018	5,325	2,392	..	41	..	7,676	266
	2019	5,011	170	..	27	..	5,154	181
<b>Asia</b>	<b>2016</b>	<b>603,863</b>	<b>108,657</b>	<b>179,857</b>	<b>7,910</b>	<b>-272</b>	<b>525,025</b>	<b>117</b>
	<b>2017</b>	<b>617,809</b>	<b>106,953</b>	<b>180,044</b>	<b>8,577</b>	<b>332</b>	<b>535,809</b>	<b>119</b>
	<b>2018</b>	<b>623,689</b>	<b>109,562</b>	<b>197,097</b>	<b>9,145</b>	<b>231</b>	<b>526,778</b>	<b>116</b>
	<b>2019</b>	<b>618,094</b>	<b>88,646</b>	<b>190,786</b>	<b>11,435</b>	<b>-1,479</b>	<b>505,999</b>	<b>110</b>
Afghanistan	2016	*43	485	..	..	*7	521	15
	2017	*44	*304	..	..	-107	*455	*13
	2018	*68	373	..	..	*-30	471	13
	2019	*44	761	..	..	*177	628	16
Armenia	2016	..	119	0	..	..	119	41
	2017	..	135	0	..	..	135	46
	2018	..	115	..	..	..	115	39
	2019	..	134	0	..	..	134	45
Azerbaijan	2016	2,247	4	1,228	48	6	968	99
	2017	1,849	1	603	44	-29	1,232	125
	2018	2,148	37	661	43	41	1,440	145
	2019	2,243	1	761	31	-4	1,456	145
Bahrain	2016	3,997	..	3,484	..	157	356	250
	2017	4,184	..	3,945	..	-141	380	254
	2018	4,083	..	3,599	..	123	361	230
	2019	4,210	..	3,872	..	17	321	196
Bangladesh	2016	380	3,130	..	..	-96	3,606	23
	2017	452	3,716	..	..	..	4,168	26
	2018	546	3,458	..	..	-831	4,836	30
	2019	682	3,411	..	..	..	4,093	25
Bhutan	2016	..	117	..	..	..	117	158
	2017	..	126	..	..	..	126	169
	2018	..	139	..	..	..	139	184
	2019	..	135	..	..	..	135	176
Brunei Darussalam	2016	114	156	0	0	-5	275	655
	2017	104	189	..	..	2	291	686
	2018	110	182	..	..	-1	293	683
	2019	422	196	235	..	89	294	677
Cambodia	2016	..	1,217	..	..	..	1,217	77
	2017	..	1,224	..	..	..	1,224	76
	2018	..	1,318	..	..	..	1,318	81
	2019	..	1,366	..	..	..	1,366	83
China	2016	179,177	916	15,403	412	-2,883	167,161	118
	2017	186,679	747	17,193	504	442	169,288	119
	2018	183,601	711	18,532	375	90	165,316	116
	2019	173,083	1,190	21,383	763	-959	153,087	107

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
China, Hong Kong SAR	2016	..	5,540	95	2,593	411	2,441	337
	2017	..	5,970	110	2,916	178	2,766	379
	2018	..	6,420	115	3,529	179	2,597	352
	2019	..	6,461	88	3,356	354	2,663	358
China, Macao SAR	2016	..	182	..	73	3	106	173
	2017	..	172	..	66	4	102	164
	2018	..	160	..	64	-2	98	155
	2019	..	140	..	44	1	95	148
Cyprus	2016	..	616	..	95	-10	531	454
	2017	..	786	..	101	9	675	572
	2018	..	769	..	118	-14	665	559
	2019	..	810	..	124	-6	692	577
Georgia	2016	9	658	0	..	16	651	162
	2017	10	575	11	..	-14	588	147
	2018	10	563	4	2	18	549	137
	2019	15	553	0	2	-21	586	147
India	2016	103,147	996	27,452	..	..	76,691	58
	2017	108,466	1,353	29,676	..	..	80,143	60
	2018	111,236	555	27,931	..	..	83,860	62
	2019	111,841	2,796	31,653	..	..	82,984	61
Indonesia	2016	16,186	4,807	94	192	..	20,707	79
	2017	16,723	5,681	127	186	..	22,091	83
	2018	17,614	5,735	88	199	125	22,937	86
	2019	17,307	3,818	223	216	127	20,559	76
Iran (Islamic Rep. of)	2016	28,509	0	3,514	234	..	24,761	311
	2017	26,937	0	2,019	251	..	24,667	306
	2018	28,608	..	2,033	251	..	26,324	322
	2019	28,566	..	2,126	251	..	26,188	316
Iraq	2016	3,287	13,328	..	..	..	16,615	454
	2017	4,012	13,189	..	..	..	17,201	458
	2018	5,291	10,625	..	..	..	15,916	414
	2019	5,824	1,514	..	..	..	7,338	187
Israel	2016	4,411	279	1,943	28	-21	2,740	338
	2017	4,628	321	2,014	42	105	2,789	338
	2018	4,789	248	2,166	51	26	2,795	333
	2019	5,389	204	2,586	61	205	2,742	322
Japan	2016	45,595	399	8,138	188	197	37,471	293
	2017	45,633	516	8,502	169	-136	37,614	295
	2018	44,587	634	7,901	144	187	36,989	291
	2019	44,300	780	9,033	124	-67	35,991	284
Jordan	2016	909	967	..	2	6	1,868	196
	2017	845	1,029	..	4	..	1,870	191
	2018	738	1,145	..	4	-31	1,910	192
	2019	765	1,240	..	4	..	2,001	198
Kazakhstan	2016	4,652	434	55	1	-46	5,076	285
	2017	4,352	474	112	0	-183	4,897	271
	2018	4,664	472	237	2	2	4,895	267
	2019	5,033	249	45	3	64	5,170	279
Korea, Dem.Ppl's.Rep.	2016	191	71	..	..	..	262	10
	2017	191	59	..	..	..	250	10
	2018	191	58	..	..	..	249	10
	2019	191	70	..	..	..	261	10

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Korea, Republic of	2016	46,320	267	23,482	1,204	-287	22,188	435
	2017	47,108	271	23,561	1,288	-111	22,641	443
	2018	49,006	241	25,585	1,104	199	22,359	437
	2019	50,065	235	26,201	1,461	-91	22,729	444
Kuwait	2016	9,425	..	7,025	92	..	2,308	583
	2017	8,476	..	5,924	83	..	2,469	609
	2018	8,397	..	5,787	82	..	2,528	611
	2019	8,168	..	5,742	80	..	2,346	558
Kyrgyzstan	2016	106	347	0	..	-28	481	79
	2017	89	541	2	..	9	619	100
	2018	79	706	1	..	34	750	119
	2019	83	535	17	..	-40	641	100
Lao People's Dem. Rep.	2016	..	799	..	..	..	799	117
	2017	..	816	..	..	..	816	117
	2018	..	850	..	..	..	850	120
	2019	..	*860	..	..	..	*860	*120
Lebanon	2016	..	3,701	..	..	..	3,701	551
	2017	..	3,738	..	..	..	3,738	548
	2018	..	3,426	..	..	..	3,426	499
	2019	..	3,590	..	..	..	3,590	524
Malaysia	2016	9,833	3,836	4,731	1	-100	9,037	295
	2017	9,725	5,087	5,054	91	-64	9,731	313
	2018	9,515	6,751	7,128	99	-802	9,841	312
	2019	9,011	5,256	5,485	103	*-700	9,379	294
Maldives	2016	..	445	..	*47	..	398	837
	2017	..	448	..	*41	..	407	819
	2018	..	522	..	*50	..	472	914
	2019	..	579	..	*55	..	524	987
Mongolia	2016	..	548	..	..	..	548	179
	2017	..	805	..	..	..	805	259
	2018	..	849	..	..	..	849	268
	2019	..	1,080	..	..	..	1,080	335
Myanmar	2016	150	2,151	173	..	178	1,949	37
	2017	151	2,095	..	..	82	2,164	41
	2018	115	4,035	..	1	..	4,149	77
	2019	103	4,184	..	1	..	4,286	79
Nepal	2016	..	1,091	..	..	..	1,091	40
	2017	..	1,313	..	..	..	1,313	48
	2018	..	1,421	..	..	..	1,421	51
	2019	..	1,240	..	..	..	1,240	43
Oman	2016	2,922	10	603	..	..	2,329	520
	2017	3,437	235	718	..	..	2,954	633
	2018	3,769	236	1,629	..	..	2,375	492
	2019	3,463	243	1,278	..	..	2,429	488
Other Asia	2016	13,653	0	8,903	92	-78	4,736	201
	2017	13,343	39	8,256	98	141	4,887	206
	2018	14,379	..	9,403	123	111	4,741	200
	2019	14,847	..	9,932	209	-128	4,835	203
Pakistan	2016	4,783	4,739	..	9	207	9,306	46
	2017	5,501	4,486	..	6	72	9,909	48
	2018	5,232	3,097	0	6	..	8,323	39
	2019	4,715	3,086	0	..	..	7,801	36

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Philippines	2016	4,030	4,889	0	6	152	8,760	85
	2017	3,840	5,547	0	11	105	9,271	88
	2018	4,589	5,364	123	20	183	9,628	90
	2019	3,227	6,841	75	14	136	9,844	91
Qatar	2016	2,081	540	3,720	..	1,185	-2,284	-860
	2017	1,973	115	3,271	..	-949	-234	-86
	2018	2,059	75	3,877	..	-39	-1,703	-612
	2019	1,948	78	2,885	..	0	-859	-303
Saudi Arabia	2016	53,198	11,101	29,046	..	208	35,044	1,080
	2017	54,486	4,510	30,545	..	-189	28,640	865
	2018	54,156	9,894	41,760	..	..	22,290	661
	2019	53,355	*987	*29,851	..	*-329	24,820	724
Singapore	2016	12,199	15,478	24,855	1,991	233	597	106
	2017	10,967	14,321	25,422	2,021	141	-2,296	-402
	2018	9,185	13,054	23,972	2,286	..	-4,019	-698
	2019	10,734	12,096	21,763	3,883	..	-2,817	-485
Sri Lanka	2016	583	1,574	..	0	-243	2,401	114
	2017	506	1,763	..	..	-95	2,364	112
	2018	568	1,483	..	13	-5	2,043	96
	2019	624	1,587	..	13	18	2,181	102
State of Palestine	2016	..	639	..	..	0	639	138
	2017	..	636	..	..	..	636	134
	2018	..	563	..	..	0	563	116
	2019	..	655	..	..	..	655	131
Syrian Arab Republic	2016	2,207	249	..	384	..	2,072	119
	2017	2,451	216	..	361	..	2,306	135
	2018	2,295	215	..	351	..	2,159	127
	2019	1,982	243	..	359	..	1,867	109
Tajikistan	2016	5	205	..	..	..	210	24
	2017	10	183	..	..	..	193	22
	2018	17	203	..	..	..	220	24
	2019	13	250	..	..	..	262	28
Thailand	2016	22,103	713	4,138	..	236	18,442	267
	2017	23,150	700	4,513	..	515	18,821	272
	2018	23,152	501	4,761	..	551	18,341	264
	2019	20,637	2,042	3,249	..	-212	19,642	282
Timor-Leste	2016	..	139	..	..	..	139	114
	2017	..	149	..	..	..	149	120
	2018	..	130	..	..	..	130	103
	2019	..	161	..	..	..	161	125
Turkey	2016	9,725	12,861	72	81	227	22,206	278
	2017	10,545	14,373	233	72	176	24,437	301
	2018	9,530	14,719	120	90	-99	24,138	293
	2019	13,938	11,183	1,382	145	-106	23,700	284
Turkmenistan	2016	2,770	..	690	..	..	2,080	367
	2017	2,770	..	690	..	..	2,080	361
	2018	2,770	..	690	..	..	2,080	356
	2019	2,770	..	690	..	..	2,080	350
United Arab Emirates	2016	10,865	684	9,561	89	..	1,899	203
	2017	10,427	204	7,015	177	451	2,988	315
	2018	10,929	603	8,421	93	..	3,017	313
	2019	11,343	158	9,753	81	..	1,667	171

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Uzbekistan	2016	1,008	..	..	..	-32	1,041	33
	2017	1,017	..	..	..	-25	1,042	33
	2018	1,081	..	..	..	17	1,064	33
	2019	1,030	71	..	..	-3	1,104	33
Viet Nam	2016	2,855	6,716	1,451	..	127	7,993	85
	2017	2,481	7,309	527	..	-56	9,319	99
	2018	4,286	6,417	573	..	201	9,929	104
	2019	5,647	5,014	478	..	..	10,183	106
Yemen	2016	189	514	..	48	..	655	24
	2017	248	488	..	46	..	691	25
	2018	297	492	..	46	..	742	26
	2019	476	564	..	53	..	988	34
<b>Europe</b>	<b>2016</b>	<b>354,579</b>	<b>154,142</b>	<b>152,056</b>	<b>24,419</b>	<b>2,032</b>	<b>330,213</b>	<b>442</b>
	<b>2017</b>	<b>363,062</b>	<b>151,861</b>	<b>153,962</b>	<b>25,224</b>	<b>-5,095</b>	<b>340,832</b>	<b>456</b>
	<b>2018</b>	<b>358,088</b>	<b>143,960</b>	<b>141,133</b>	<b>20,430</b>	<b>-2,771</b>	<b>343,256</b>	<b>459</b>
	<b>2019</b>	<b>363,265</b>	<b>149,734</b>	<b>156,864</b>	<b>12,000</b>	<b>2,691</b>	<b>341,443</b>	<b>456</b>
Albania	2016	18	743	4	34	16	707	245
	2017	158	723	19	36	16	810	281
	2018	104	665	40	31	16	682	237
	2019	76	686	28	22	31	681	236
Andorra	2016	..	132	..	..	..	132	1,711
	2017	..	131	..	..	..	131	1,707
	2018	..	138	..	..	..	138	1,797
	2019	..	133	..	..	..	133	1,723
Austria	2016	3,802	5,057	841	21	116	7,881	901
	2017	3,981	5,107	964	21	-61	8,165	926
	2018	4,053	5,065	1,008	14	-25	8,121	913
	2019	4,191	5,234	1,077	14	160	8,174	913
Belarus	2016	6,768	693	4,850	..	-19	2,630	278
	2017	6,563	790	4,303	..	202	2,848	301
	2018	6,457	209	3,450	..	174	3,042	322
	2019	7,019	0	3,900	..	112	3,007	318
Belgium	2016	12,751	11,119	11,659	1,438	-313	11,086	976
	2017	13,267	10,629	12,310	1,053	-827	11,360	995
	2018	13,930	9,844	11,575	1,296	-118	11,021	960
	2019	15,091	8,197	10,982	1,160	396	10,750	932
Bosnia and Herzegovina	2016	381	795	1	..	18	1,157	342
	2017	366	807	11	..	12	1,150	343
	2018	300	839	23	..	-21	1,137	342
	2019	9	1,176	2	..	-12	1,195	362
Bulgaria	2016	2,745	961	1,382	59	105	2,160	302
	2017	3,032	1,035	1,769	57	-17	2,257	318
	2018	2,545	807	959	57	-86	2,422	344
	2019	3,191	893	1,567	59	-54	2,513	359
Croatia	2016	1,434	1,008	675	3	3	1,761	418
	2017	1,492	1,414	939	4	34	1,929	461
	2018	1,556	1,336	976	16	39	1,860	448
	2019	1,239	1,924	1,123	20	104	1,916	464
Czechia	2016	2,757	2,861	857	..	-12	4,773	449
	2017	3,679	2,087	898	..	-46	4,914	462
	2018	3,505	2,410	842	..	114	4,959	465
	2019	3,648	2,226	843	..	-2	5,033	471

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Denmark	2016	4,897	3,749	2,816	411	-20	5,439	952
	2017	4,538	2,732	2,354	390	-331	4,856	847
	2018	4,687	2,396	1,763	370	-194	5,144	894
	2019	4,455	2,706	1,965	365	285	4,545	788
Estonia	2016	..	799	4	111	33	651	494
	2017	..	789	..	112	32	645	489
	2018	..	902	74	157	-46	717	542
	2019	..	834	41	63	51	679	512
Faeroe Islands	2016	..	*149	..	16	..	*133	*2,761
	2017	..	*168	..	16	..	*152	*3,142
	2018	..	*176	..	18	..	*157	*3,243
	2019	..	*177	..	19	..	*158	*3,241
Finland	2016	6,395	1,923	3,813	41	-43	4,507	820
	2017	6,605	1,782	3,739	70	-261	4,839	878
	2018	6,652	1,556	3,587	57	-161	4,725	856
	2019	6,655	1,592	3,773	72	-103	4,505	814
France	2016	27,901	22,423	2,064	236	246	47,778	715
	2017	27,905	21,965	2,592	181	-150	47,247	705
	2018	26,204	22,454	2,195	171	-395	46,687	694
	2019	23,887	24,314	2,566	139	-78	45,574	676
Germany	2016	46,100	19,238	9,511	999	449	54,379	662
	2017	45,709	19,456	9,022	862	-255	55,536	672
	2018	43,143	18,551	8,221	734	-405	53,144	639
	2019	44,045	19,896	7,480	706	200	55,555	665
Gibraltar	2016	..	531	..	423	..	108	3,201
	2017	..	588	..	471	..	117	3,469
	2018	..	587	..	460	..	127	3,767
	2019	..	607	..	471	..	136	4,032
Greece	2016	10,892	1,133	7,363	309	-135	4,488	423
	2017	10,992	1,151	7,127	340	138	4,539	429
	2018	11,172	999	7,571	323	25	4,252	404
	2019	10,453	1,508	7,060	384	-70	4,587	438
Hungary	2016	3,114	1,543	1,231	..	137	3,289	337
	2017	3,167	1,671	1,414	..	-20	3,444	354
	2018	3,302	2,279	1,939	..	-75	3,717	383
	2019	3,245	2,119	1,450	..	48	3,866	399
Iceland	2016	12	341	..	34	0	319	959
	2017	13	347	..	33	2	325	971
	2018	15	369	..	42	29	314	932
	2019	15	393	..	45	-7	370	1,090
Ireland	2016	1,263	2,669	114	144	-36	3,710	790
	2017	1,303	2,849	187	138	61	3,766	792
	2018	1,146	2,931	99	142	-8	3,845	798
	2019	1,131	3,069	159	127	-38	3,952	809
Italy	2016	31,806	4,412	9,324	268	-91	26,717	440
	2017	30,685	5,037	10,188	282	-232	25,484	420
	2018	30,373	5,347	8,982	482	-363	26,619	439
	2019	32,879	5,196	9,618	512	123	27,821	459
Kosovo	2016	..	424	..	..	..	424	239
	2017	..	462	..	..	..	462	258
	2018	..	494	..	..	..	494	275
	2019	..	494	..	..	..	494	275

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Latvia	2016	5	1,874	591	164	167	957	485
	2017	3	1,712	528	136	21	1,030	528
	2018	33	1,735	679	36	-19	1,072	556
	2019	35	1,595	318	248	9	1,055	553
Lithuania	2016	3,172	1,162	3,578	67	5	684	237
	2017	3,392	665	3,172	73	-55	868	305
	2018	3,480	521	2,726	83	48	1,145	409
	2019	3,329	527	2,620	79	-23	1,180	428
Luxembourg	2016	..	1,852	1	..	-4	1,854	3,201
	2017	..	1,917	1	..	-7	1,924	3,250
	2018	..	2,013	2	..	-6	2,018	3,339
	2019	..	2,069	3	..	14	2,052	3,332
Malta	2016	..	677	249	262	14	152	349
	2017	..	635	69	322	88	156	355
	2018	..	643	193	360	-78	167	380
	2019	..	725	136	378	28	184	419
Montenegro	2016	..	223	0	..	9	214	341
	2017	..	252	..	..	14	238	379
	2018	..	259	..	..	1	258	411
	2019	..	256	..	..	-15	272	432
Netherlands	2016	19,278	18,861	30,158	2,026	-469	6,424	378
	2017	19,438	16,818	29,299	2,083	-1,461	6,336	372
	2018	18,939	12,056	23,285	2,001	-719	6,428	377
	2019	21,225	12,816	24,031	2,524	750	6,737	394
North Macedonia	2016	0	654	39	..	12	603	290
	2017	0	661	39	..	-3	625	300
	2018	..	667	53	..	-7	620	298
	2019	..	751	63	..	21	667	320
Norway	2016	5,337	1,794	2,672	50	-196	4,605	877
	2017	7,193	1,717	4,241	122	-110	4,657	879
	2018	7,845	1,580	4,115	149	40	5,121	959
	2019	7,019	2,079	4,146	114	-114	4,952	921
Poland	2016	11,863	3,740	1,086	129	126	14,262	375
	2017	12,338	5,209	187	211	259	16,890	445
	2018	13,282	4,810	36	189	104	17,763	468
	2019	13,709	4,549	59	192	53	17,954	474
Portugal	2016	5,976	962	2,076	127	-102	4,837	468
	2017	6,218	893	2,079	130	-7	4,908	477
	2018	5,520	857	1,134	137	95	5,011	489
	2019	4,915	1,258	900	153	7	5,113	500
Republic of Moldova	2016	2	555	7	..	6	544	134
	2017	1	594	21	..	-4	578	142
	2018	2	610	24	..	..	588	145
	2019	..	622	9	..	-2	615	152
Romania	2016	5,437	1,232	1,690	31	53	4,895	247
	2017	5,655	1,366	1,547	28	28	5,418	276
	2018	5,656	1,457	1,586	18	-128	5,638	289
	2019	6,139	1,227	1,531	34	69	5,732	296
Russian Federation	2016	76,249	82	*34,115	12,977	348	28,891	199
	2017	80,090	143	*33,684	14,375	45	32,129	221
	2018	77,464	57	*33,468	*9,645	212	34,196	235
	2019	81,560	62	51,528	385	408	29,301	201

Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Serbia	2016	1,322	448	128	20	14	1,608	227
	2017	1,401	527	220	14	0	1,695	241
	2018	1,572	459	233	17	33	1,748	250
	2019	1,458	675	250	16	-39	1,906	273
Slovakia	2016	2,997	834	2,198	..	-32	1,665	306
	2017	3,006	1,048	2,064	..	-9	1,999	367
	2018	2,857	988	1,803	..	11	2,031	372
	2019	2,714	973	1,653	..	-3	2,037	373
Slovenia	2016	16	2,997	1,349	..	-37	1,701	820
	2017	24	3,135	1,364	..	69	1,725	831
	2018	74	3,151	1,449	19	-6	1,764	849
	2019	102	3,280	1,608	28	18	1,727	831
Spain	2016	27,749	4,790	5,381	1,560	-278	25,876	555
	2017	28,426	5,085	6,578	1,271	-503	26,165	561
	2018	28,846	4,748	6,140	1,249	-61	26,266	563
	2019	28,669	5,026	5,983	1,594	144	25,974	556
Sweden	2016	8,310	3,089	5,315	684	1,003	4,397	447
	2017	9,032	2,910	6,938	723	-1,320	5,601	565
	2018	9,646	2,262	6,361	523	-260	5,284	530
	2019	6,690	2,591	3,887	476	-121	5,039	502
Switzerland	2016	1,766	3,803	30	5	152	5,382	642
	2017	1,786	3,814	28	4	-89	5,657	669
	2018	1,939	2,902	29	3	-363	5,171	607
	2019	1,744	4,004	16	3	165	5,564	648
Ukraine	2016	929	5,125	0	..	612	5,442	122
	2017	680	5,422	193	..	-359	6,268	141
	2018	*730	5,594	214	..	-137	6,247	141
	2019	*813	6,257	264	..	38	6,768	154
United Kingdom	2016	21,136	16,685	4,884	1,770	175	30,992	467
	2017	20,923	15,619	3,875	1,667	12	30,988	464
	2018	21,057	16,239	4,299	1,630	-28	31,395	468
	2019	21,916	15,020	4,225	1,599	139	30,973	459
<b>Oceania</b>	<b>2016</b>	<b>10,076</b>	<b>17,682</b>	<b>184</b>	<b>181</b>	<b>214</b>	<b>27,179</b>	<b>672</b>
	<b>2017</b>	<b>9,764</b>	<b>18,253</b>	<b>238</b>	<b>185</b>	<b>-214</b>	<b>27,808</b>	<b>678</b>
	<b>2018</b>	<b>9,973</b>	<b>20,354</b>	<b>215</b>	<b>195</b>	<b>284</b>	<b>29,632</b>	<b>713</b>
	<b>2019</b>	<b>10,124</b>	<b>20,707</b>	<b>256</b>	<b>221</b>	<b>309</b>	<b>30,044</b>	<b>713</b>
American Samoa	2016	..	*90	..	*8	..	*82	*1,475
	2017	..	*90	..	*8	..	*82	*1,478
	2018	..	*90	..	*8	..	*82	*1,482
	2019	..	*90	..	*8	..	*82	*1,486
Australia	2016	7,579	14,896	44	46	217	22,168	914
	2017	7,279	15,418	89	47	-173	22,733	925
	2018	7,707	16,993	73	54	308	24,266	975
	2019	7,596	17,352	95	77	258	24,519	973
Cook Islands	2016	..	*14	..	..	..	*14	*822
	2017	..	*16	..	..	..	*16	*885
	2018	..	*16	..	..	..	*16	*885
	2019	..	*16	..	..	..	*16	*895
Fiji	2016	..	375	140	*50	..	186	213
	2017	..	385	118	*55	..	212	242
	2018	..	*402	*142	*60	..	*201	*227
	2019	..	*390	*130	*55	..	*205	*230



Table 21

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
French Polynesia	2016	..	135	..	..	-5	140	510
	2017	..	138	..	..	-2	141	510
	2018	..	141	..	..	3	137	495
	2019	..	135	..	..	-4	139	499
Kiribati	2016	..	10	..	..	..	10	92
	2017	..	13	..	..	..	13	113
	2018	..	*13	..	..	..	*13	*113
	2019	..	*13	..	..	..	*13	*112
Marshall Islands	2016	..	*35	..	..	..	*35	*606
	2017	..	*36	..	..	..	*36	*615
	2018	..	*36	..	..	..	*36	*616
	2019	..	*36	..	..	..	*36	*617
Micronesia (Fed. States of)	2016	..	*30	..	*3	..	*27	*240
	2017	..	*30	..	*3	..	*27	*238
	2018	..	*30	..	*3	..	*27	*236
	2019	..	*30	..	*3	..	*27	*233
Nauru	2016	..	*10	..	..	0	*10	*923
	2017	..	*10	..	..	..	*10	*962
	2018	..	*10	..	..	..	*10	*928
	2019	..	*10	..	..	..	*10	*906
New Caledonia	2016	..	286	..	4	-7	289	1,054
	2017	..	294	..	7	5	282	1,019
	2018	..	347	..	12	-3	338	1,206
	2019	..	311	..	9	-5	307	1,085
New Zealand	2016	1,949	1,033	0	48	38	2,896	622
	2017	1,942	979	31	38	-56	2,908	618
	2018	1,790	1,259	0	34	-36	3,051	643
	2019	2,029	1,258	31	45	47	3,164	662
Niue	2016	..	*1	..	..	..	*1	*683
	2017	..	*1	..	..	..	*1	*664
	2018	..	*1	..	..	..	*1	*714
	2019	..	*1	..	..	..	*1	*743
Northern Mariana Islands	2016	..	*164	..	*16	..	*148	*2,634
	2017	..	*177	..	*21	..	*156	*2,758
	2018	..	*171	..	*18	..	*153	*2,689
	2019	..	*172	..	*18	..	*154	*2,692
Palau	2016	..	30	..	..	..	30	1,668
	2017	..	*29	..	..	..	*29	*1,628
	2018	..	*28	..	..	..	*28	*1,569
	2019	..	*29	..	..	..	*29	*1,583
Papua New Guinea	2016	548	403	..	..	-25	977	118
	2017	543	465	..	..	11	997	118
	2018	475	636	..	..	11	1,100	128
	2019	*499	*668	..	..	*11	*1,155	*132
Samoa	2016	..	45	1	..	*-3	47	242
	2017	..	49	*1	..	*2	47	239
	2018	..	45	*1	..	*1	43	221
	2019	..	53	*1	..	*2	51	258
Solomon Islands	2016	..	*78	..	*5	..	*73	*117
	2017	..	*77	..	*5	..	*72	*113
	2018	..	*79	..	*6	..	*73	*112
	2019	..	*80	..	*6	..	*74	*111

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tonga	2016	..	0	..	..	..	0	0
	2017	..	0	..	..	..	0	0
	2018	..	0	..	..	..	0	0
	2019	..	9	..	..	..	9	89
Tuvalu	2016	..	*2	..	..	..	*2	*166
	2017	..	*2	..	..	..	*2	*172
	2018	..	*2	..	..	..	*2	*200
	2019	..	*2	..	..	..	*2	*197
Vanuatu	2016	..	39	..	..	..	39	140
	2017	..	38	..	..	..	38	133
	2018	..	48	..	..	..	48	163
	2019	..	44	..	..	..	44	147
Wallis and Futuna Is.	2016	..	7	..	..	..	7	554
	2017	..	7	..	..	..	7	550
	2018	..	7	..	..	..	7	577
	2019	..	7	..	..	..	7	612



### Production, trade and supply of fuel oil

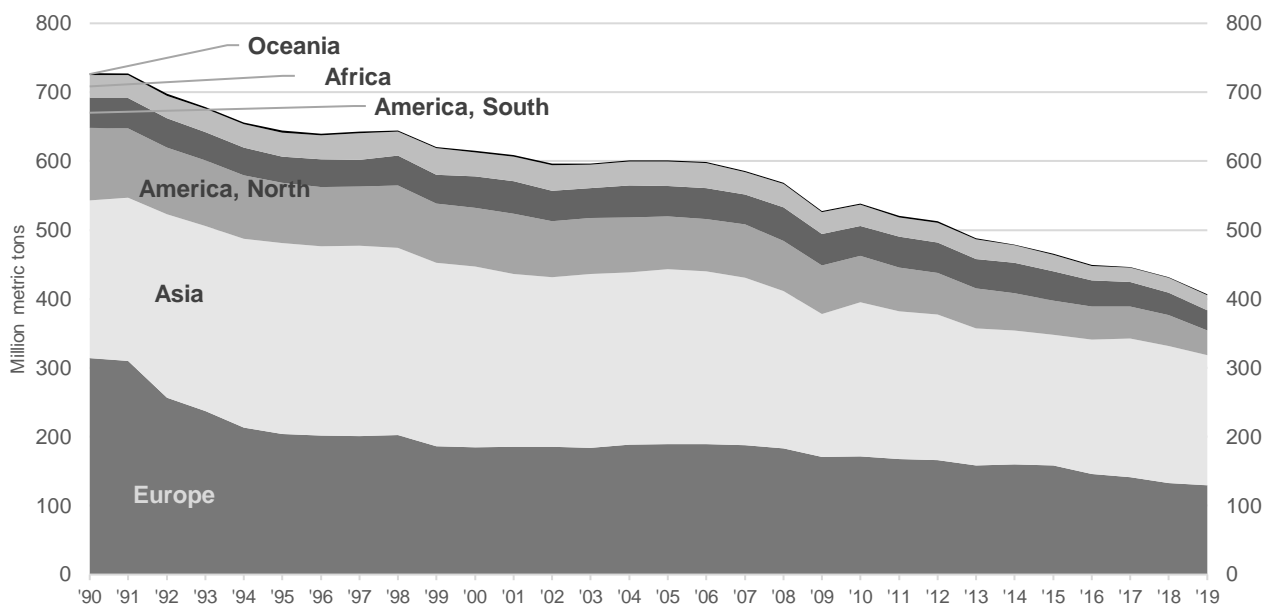
Thousand metric tons and kilograms per capita

#### Table Notes

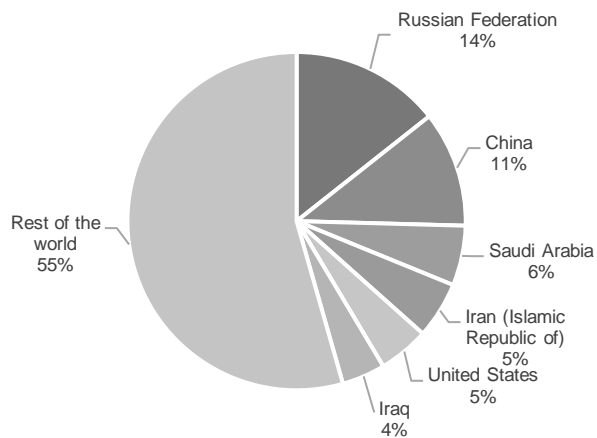
**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 60: Production of fuel oil by region, 1990-2019**



**Figure 61: Major fuel oil producing countries, 2019**



**Figure 62: Major fuel oil consuming countries, 2019**

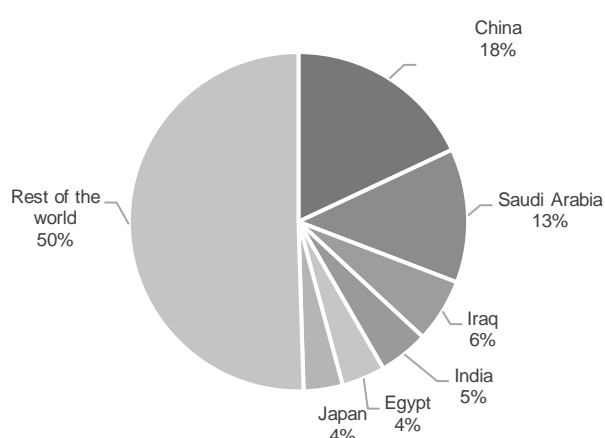


Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
<b>World</b>	<b>2016</b>	<b>449,000</b>	<b>242,548</b>	<b>300,392</b>	<b>165,403</b>	<b>-4,230</b>	<b>229,984</b>	<b>31</b>
	<b>2017</b>	<b>446,610</b>	<b>231,970</b>	<b>286,310</b>	<b>173,016</b>	<b>-4,288</b>	<b>223,542</b>	<b>30</b>
	<b>2018</b>	<b>431,931</b>	<b>228,033</b>	<b>273,667</b>	<b>170,715</b>	<b>-6,215</b>	<b>221,796</b>	<b>29</b>
	<b>2019</b>	<b>406,889</b>	<b>209,160</b>	<b>237,386</b>	<b>169,693</b>	<b>99</b>	<b>208,872</b>	<b>27</b>
<b>Africa</b>	<b>2016</b>	<b>20,726</b>	<b>7,535</b>	<b>9,593</b>	<b>1,411</b>	<b>-101</b>	<b>17,358</b>	<b>14</b>
	<b>2017</b>	<b>20,424</b>	<b>7,950</b>	<b>9,621</b>	<b>1,793</b>	<b>-57</b>	<b>17,017</b>	<b>14</b>
	<b>2018</b>	<b>21,459</b>	<b>6,321</b>	<b>9,258</b>	<b>3,054</b>	<b>-324</b>	<b>15,792</b>	<b>12</b>
	<b>2019</b>	<b>22,102</b>	<b>5,713</b>	<b>8,688</b>	<b>2,727</b>	<b>-430</b>	<b>16,830</b>	<b>13</b>
Algeria	2016	6,870	146	6,940	182	-106	0	0
	2017	6,402	186	6,379	172	25	12	0
	2018	5,822	141	5,810	156	-21	18	0
	2019	5,915	79	5,687	17	129	161	4
Angola	2016	971	0	541	360	*51	19	1
	2017	947	..	582	388	*50	-72	-2
	2018	614	..	377	252	*20	-35	-1
	2019	1,072	..	409	273	..	391	12
Benin	2016	..	5	..	1	-18	22	2
	2017	..	14	..	1	-9	22	2
	2018	..	25	..	..	-2	27	2
	2019	..	39	..	..	5	34	3
Botswana	2016	..	12	..	..	..	12	6
	2017	..	12	..	..	..	12	5
	2018	..	13	..	..	..	13	6
	2019	..	13	..	..	..	13	6
Burkina Faso	2016	..	165	..	..	*21	144	8
	2017	..	224	..	..	*20	204	11
	2018	..	225	..	..	..	225	11
	2019	..	212	..	..	*-3	215	11
Burundi	2016	..	*9	..	..	..	*9	*1
	2017	..	*24	..	..	..	*24	*2
	2018	..	*31	..	..	..	*31	*3
	2019	..	*32	..	..	..	*32	*3
Cabo Verde	2016	..	*105	..	*40	..	*65	*123
	2017	..	*114	..	*43	..	*71	*133
	2018	..	*113	..	*44	..	*69	*126
	2019	..	*120	..	*45	..	*75	*136
Cameroon	2016	270	..	148	0	..	122	5
	2017	222	..	97	0	..	126	5
	2018	201	..	72	..	..	130	5
	2019	104	48	37	..	..	115	4
Central African Rep.	2016	..	1	..	..	..	1	0
	2017	..	*2	..	..	..	*2	0
	2018	..	*2	..	..	..	*2	0
	2019	..	*2	..	..	..	*2	0
Chad	2016	*24	..	*19	..	..	*5	0
	2017	*24	..	*18	..	0	*6	0
	2018	*24	..	*20	..	..	*4	0
	2019	*26	..	*20	..	..	*6	0
Congo	2016	325	26	325	..	..	26	5
	2017	358	16	343	..	..	31	6
	2018	362	16	348	..	..	30	6
	2019	368	16	352	..	..	32	6

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Côte d'Ivoire	2016	317	..	271	7	0	39	2
	2017	*313	..	*254	6	..	*53	*2
	2018	652	..	623	7	..	22	1
	2019	704	..	691	7	..	5	0
Dem. Rep. of the Congo	2016	..	22	..	..	..	22	0
	2017	..	16	..	..	..	16	0
	2018	..	14	..	..	..	14	0
	2019	..	6	..	..	..	6	0
Djibouti	2016	..	15	..	*9	6	0	0
	2017	..	9	..	*9	0	0	0
	2018	..	*9	..	*9	..	0	0
	2019	..	*9	..	*9	..	0	0
Egypt	2016	7,567	2,302	..	21	..	9,848	104
	2017	7,354	1,422	..	158	..	8,618	89
	2018	7,444	498	234	27	..	7,681	78
	2019	9,009	..	356	13	..	8,640	86
Eritrea	2016	..	68	..	..	..	68	20
	2017	..	63	..	..	..	63	19
	2018	..	82	..	..	..	82	24
	2019	..	84	..	..	..	84	24
Eswatini	2016	..	*1	..	..	..	*1	*1
	2017	..	0	..	..	..	0	0
	2018	..	0	..	..	..	0	0
	2019	..	0	..	..	..	0	0
Ethiopia	2016	..	38	..	..	..	38	0
	2017	..	43	..	..	..	43	0
	2018	..	46	..	..	..	46	0
	2019	..	60	..	..	..	60	1
Gabon	2016	418	..	241	107	..	70	35
	2017	396	..	191	83	..	121	59
	2018	362	..	175	83	..	104	49
	2019	308	..	149	84	..	75	35
Gambia	2016	..	72	..	..	..	72	34
	2017	..	73	..	..	..	73	33
	2018	..	*69	..	..	..	*69	*30
	2019	..	*70	..	..	..	*70	*30
Ghana	2016	64	0	70	..	0	-6	0
	2017	4	0	53	..	0	-49	-2
	2018	32	0	42	..	..	-10	0
	2019	205	0	66	..	13	126	4
Guinea	2016	..	162	..	..	..	162	14
	2017	..	158	..	..	..	158	13
	2018	..	374	..	..	..	374	30
	2019	..	377	..	..	..	377	29
Guinea-Bissau	2016	..	*34	..	..	..	*34	*19
	2017	..	*34	..	..	..	*34	*18
	2018	..	*34	..	..	..	*34	*18
	2019	..	*35	..	..	..	*35	*18
Kenya	2016	0	349	19	0	0	329	7
	2017	0	599	38	8	0	553	11
	2018	..	512	..	46	..	466	9
	2019	..	432	1	..	..	430	8

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Libya	2016	1,827	0	427	85	..	1,315	203
	2017	1,676	0	339	220	..	1,117	170
	2018	1,850	..	218	281	..	1,351	202
	2019	1,587	..	175	291	..	1,122	166
Madagascar	2016	..	80	..	*9	*1	71	3
	2017	..	160	..	5	12	143	6
	2018	..	131	..	..	-21	152	6
	2019	..	219	..	..	15	204	8
Malawi	2016	..	*2	..	..	..	*2	0
	2017	..	*2	..	..	..	*2	0
	2018	..	*2	..	..	..	*2	0
	2019	..	*2	..	..	..	*2	0
Mali	2016	..	*89	..	..	..	*89	*5
	2017	..	*90	..	..	..	*90	*5
	2018	..	*92	..	..	..	*92	*5
	2019	..	*94	..	..	..	*94	*5
Mauritania	2016	..	171	..	..	..	171	41
	2017	..	277	..	..	*16	261	61
	2018	..	402	..	..	*88	313	71
	2019	..	391	..	..	*88	303	67
Mauritius	2016	..	490	..	217	7	265	210
	2017	..	649	..	341	27	281	222
	2018	..	663	..	436	-63	290	229
	2019	..	850	..	520	13	317	249
Morocco	2016	0	1,518	0	114	129	1,275	36
	2017	..	1,795	..	114	6	1,675	46
	2018	..	1,217	..	114	70	1,033	28
	2019	..	836	..	114	-3	725	20
Mozambique	2016	..	0	..	..	..	0	0
	2017	..	82	..	..	..	82	3
	2018	..	65	..	..	..	65	2
	2019	..	30	..	..	..	30	1
Namibia	2016	..	18	..	..	..	18	8
	2017	..	18	..	..	..	18	7
	2018	..	18	..	..	..	18	7
	2019	..	18	..	..	..	18	7
Niger	2016	..	6	..	..	..	6	0
	2017	..	*24	..	..	..	*24	*1
	2018	..	1	..	..	..	1	0
	2019	..	0	..	..	..	0	0
Nigeria	2016	577	297	169	216	-187	676	4
	2017	994	297	511	218	-190	752	4
	2018	552	9	88	228	-386	630	3
	2019	34	32	..	237	-677	506	3
Rwanda	2016	..	5	..	..	..	5	0
	2017	..	*15	..	..	..	*15	*1
	2018	..	*21	..	..	..	*21	*2
	2019	..	39	..	..	..	39	3
Senegal	2016	266	624	56	3	-1	832	55
	2017	285	672	56	3	0	898	58
	2018	220	615	..	..	..	835	53
	2019	191	746	..	..	1	936	57

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Seychelles	2016	..	87	..	*1	..	86	900
	2017	..	95	..	*1	..	94	977
	2018	..	86	..	*1	..	85	871
	2019	..	72	..	*1	..	71	729
Sierra Leone	2016	..	32	..	..	..	32	4
	2017	..	44	..	..	..	44	6
	2018	..	48	..	..	..	48	6
	2019	..	86	..	..	..	86	11
Somalia	2016	..	*39	..	*12	..	*27	*2
	2017	..	*39	..	*12	..	*27	*2
	2018	..	*39	..	*12	..	*27	*2
	2019	..	*39	..	*12	..	*27	*2
South Africa	2016	584	..	..	..	..	584	10
	2017	895	34	437	..	..	492	9
	2018	2,753	97	955	1,352	..	543	9
	2019	2,238	136	710	1,099	..	566	10
Sudan	2016	135	..	..	..	..	135	3
	2017	51	140	..	..	..	191	5
	2018	114	188	..	..	..	302	7
	2019	*116	*190	..	..	..	*306	*7
Togo	2016	..	*185	..	..	..	*185	*25
	2017	..	*149	..	..	..	*149	*19
	2018	..	55	..	..	-2	57	7
	2019	..	22	..	..	..	22	3
Tunisia	2016	409	230	367	..	-4	276	24
	2017	327	222	323	..	-13	239	21
	2018	338	276	296	..	-8	326	28
	2019	52	223	35	..	-11	250	21
Uganda	2016	..	*40	..	..	..	*40	*1
	2017	..	*95	..	..	..	*95	*2
	2018	..	75	..	..	..	75	2
	2019	..	24	..	..	..	24	1
United Rep. of Tanzania	2016	..	92	..	27	..	65	1
	2017	..	43	..	13	..	30	1
	2018	..	17	..	5	..	12	0
	2019	..	31	..	5	..	26	0
Zambia	2016	102	0	0	..	..	102	6
	2017	176	..	..	..	..	176	10
	2018	119	..	..	..	..	119	7
	2019	172	..	..	..	..	172	10
America, North	2016	47,767	26,814	31,507	20,578	-94	22,590	39
	2017	47,056	27,341	29,911	22,712	-1,468	23,241	40
	2018	44,858	27,787	32,136	20,487	-2,363	22,385	38
	2019	35,815	25,921	19,187	20,329	205	22,016	38
Antigua and Barbuda	2016	..	*41	..	*4	..	*37	*391
	2017	..	*41	..	*4	..	*37	*388
	2018	..	*42	..	*4	..	*38	*395
	2019	..	*42	..	*4	..	*38	*391
Aruba	2016	..	*202	..	*11	..	*191	*1,821
	2017	..	*201	..	*11	..	*190	*1,803
	2018	..	195	..	*12	..	183	1,729
	2019	..	*208	..	*12	..	*196	*1,844



Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bahamas	2016	..	35	..	*25	..	10	26
	2017	..	84	..	*71	..	13	34
	2018	..	72	..	*60	..	12	31
	2019	..	56	..	*44	..	12	31
Barbados	2016	..	228	..	..	17	210	736
	2017	..	180	..	..	15	165	577
	2018	..	195	..	..	2	193	675
	2019	..	147	..	..	-6	153	535
Belize	2016	..	4	..	..	..	4	11
	2017	..	6	..	..	..	6	17
	2018	..	9	..	..	..	9	23
	2019	..	22	..	..	..	22	56
Bermuda	2016	..	101	..	*10	..	91	1,433
	2017	..	122	..	*11	..	112	1,770
	2018	..	135	..	*11	..	124	1,969
	2019	..	115	..	*9	..	106	1,702
Bonaire, St Eustatius, Saba	2016	..	*65	..	*38	*3	*24	*952
	2017	..	*69	..	*39	*4	*25	*997
	2018	..	*61	..	*39	*-1	*23	*902
	2019	..	*64	..	*39	*-1	*26	*1,000
Canada	2016	4,115	780	3,023	245	-180	1,807	50
	2017	4,739	843	2,952	298	44	2,288	62
	2018	5,196	598	3,701	378	-29	1,744	47
	2019	5,073	764	1,908	468	8	3,453	92
Costa Rica	2016	..	142	..	..	-16	159	32
	2017	..	123	..	..	-2	124	25
	2018	..	130	..	..	-16	146	29
	2019	..	133	..	..	28	105	21
Cuba	2016	1,032	1,213	..	609	..	1,636	144
	2017	1,255	1,166	..	*440	..	1,980	175
	2018	1,313	912	..	*404	..	1,821	161
	2019	1,246	1,343	..	*380	..	2,209	195
Curaçao	2016	2,996	1,685	2,917	1,402	..	362	2,248
	2017	1,366	1,671	1,330	1,404	..	303	1,873
	2018	1,037	1,622	1,009	1,400	..	250	1,535
	2019	0	1,588	0	1,408	..	180	1,103
Dominica	2016	..	*16	..	*1	..	*14	*203
	2017	..	*14	..	*1	..	*13	*183
	2018	..	*14	..	*1	..	*13	*185
	2019	..	*15	..	*1	..	*14	*190
Dominican Republic	2016	310	1,564	..	..	6	1,868	180
	2017	254	1,401	..	..	4	1,650	157
	2018	372	1,424	..	..	-1	1,797	169
	2019	329	1,565	..	..	-1	1,896	177
El Salvador	2016	0	592	..	..	..	592	93
	2017	..	343	..	..	..	343	54
	2018	..	283	..	..	..	283	44
	2019	..	373	0	..	..	373	58
Greenland	2016	..	12	..	1	0	11	195
	2017	..	14	..	2	0	12	217
	2018	..	*10	..	*2	0	*9	*159
	2019	..	*11	..	*2	..	*9	*164

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guatemala	2016	..	486	5	..	29	451	27
	2017	..	283	5	..	-5	284	17
	2018	..	242	9	..	-21	254	15
	2019	..	264	17	..	2	245	14
Haiti	2016	..	109	..	..	..	109	10
	2017	..	123	..	..	..	123	11
	2018	..	116	..	..	..	116	10
	2019	..	126	..	..	..	126	11
Honduras	2016	..	870	16	..	-56	910	98
	2017	..	696	..	..	-11	708	75
	2018	..	521	1	..	29	491	51
	2019	..	750	1	..	..	748	77
Jamaica	2016	677	873	260	..	-15	1,305	449
	2017	677	867	302	..	18	1,224	419
	2018	729	966	250	..	-15	1,460	497
	2019	884	559	312	..	0	1,131	384
Mexico	2016	13,007	1,508	6,458	86	89	7,882	64
	2017	12,360	2,242	5,887	72	162	8,481	68
	2018	10,550	2,330	5,561	84	-81	7,316	58
	2019	8,472	2,358	4,005	74	-67	6,818	53
Nicaragua	2016	330	195	0	..	8	517	82
	2017	318	142	10	..	-2	452	71
	2018	240	*242	10	..	22	450	70
	2019	96	443	30	..	57	453	69
Panama	2016	..	3,789	..	3,538	-167	419	104
	2017	..	4,697	..	4,274	-114	537	131
	2018	..	4,308	..	4,130	-119	296	71
	2019	..	4,875	..	4,745	-101	231	54
Sint Maarten (Dutch part)	2016	..	*260	..	*133	..	*127	*3,117
	2017	..	*244	..	*128	..	*116	*2,789
	2018	..	*234	..	*123	..	*112	*2,659
	2019	..	*235	..	*124	..	*111	*2,628
St. Lucia	2016	..	*6	..	*6	..	0	0
	2017	..	*7	..	*7	..	0	0
	2018	..	*7	..	*7	..	0	0
	2019	..	*7	..	*7	..	0	0
Trinidad and Tobago	2016	2,236	..	1,821	296	120	-1	-1
	2017	2,345	..	1,956	318	53	17	13
	2018	1,810	..	1,560	254	-4	0	0
	2019	..	105	21	3	..	80	58
United States	2016	23,064	12,039	17,007	14,173	68	3,855	12
	2017	23,742	11,764	17,470	15,634	-1,635	4,037	12
	2018	23,612	13,120	20,034	13,580	-2,128	5,246	16
	2019	19,715	9,754	12,892	13,009	286	3,281	10
<b>America, South</b>	<b>2016</b>	<b>38,073</b>	<b>894</b>	<b>19,852</b>	<b>4,516</b>	<b>-459</b>	<b>15,058</b>	<b>36</b>
	<b>2017</b>	<b>35,597</b>	<b>1,065</b>	<b>19,373</b>	<b>4,657</b>	<b>-232</b>	<b>12,864</b>	<b>31</b>
	<b>2018</b>	<b>32,599</b>	<b>1,497</b>	<b>20,462</b>	<b>4,604</b>	<b>-537</b>	<b>9,568</b>	<b>23</b>
	<b>2019</b>	<b>29,089</b>	<b>1,249</b>	<b>15,734</b>	<b>4,527</b>	<b>-121</b>	<b>10,199</b>	<b>24</b>
Argentina	2016	3,923	0	25	628	-55	3,325	76
	2017	2,993	0	370	687	104	1,832	42
	2018	1,878	*236	584	591	-13	952	21
	2019	2,138	*200	863	377	-48	1,146	26

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bolivia (Plur. State of)	2016	121	..	367	..	-116	-130	-12
	2017	81	..	326	..	-149	-96	-9
	2018	38	..	180	..	-39	-103	-9
	2019	21	..	72	..	28	-79	-7
Brazil	2016	11,424	62	3,436	3,216	2	4,832	23
	2017	11,646	71	3,623	3,310	64	4,720	23
	2018	10,761	303	5,136	2,556	-213	3,585	17
	2019	11,626	53	5,801	2,972	34	2,872	14
Chile	2016	1,220	42	326	135	-15	816	45
	2017	1,170	26	290	142	54	709	38
	2018	1,149	27	391	136	2	648	35
	2019	993	14	179	102	55	671	35
Colombia	2016	3,418	0	2,387	..	..	1,030	21
	2017	2,852	8	2,082	..	..	778	16
	2018	3,260	1	1,667	..	..	1,595	32
	2019	2,915	0	1,595	..	..	1,320	26
Ecuador	2016	2,873	472	1,714	290	-1	1,343	81
	2017	2,968	634	2,288	332	-9	992	59
	2018	3,572	624	2,389	669	3	1,135	66
	2019	2,769	662	2,223	523	2	684	39
Guyana	2016	..	208	..	..	-1	209	271
	2017	..	204	..	..	2	202	261
	2018	..	216	..	..	1	215	276
	2019	..	215	..	..	-4	219	280
Paraguay	2016	..	46	..	..	-1	47	7
	2017	..	5	..	..	1	5	1
	2018	..	4	..	..	0	4	1
	2019	..	5	..	..	0	5	1
Peru	2016	2,432	23	1,884	..	-281	852	28
	2017	3,258	23	2,615	..	-233	899	29
	2018	2,780	0	2,063	463	-277	532	17
	2019	2,316	30	1,511	391	-175	618	19
Suriname	2016	296	30	383	37	..	-93	-165
	2017	323	31	257	36	..	60	106
	2018	300	30	270	32	..	28	48
	2019	255	30	124	*32	..	129	222
Uruguay	2016	334	11	..	73	9	263	77
	2017	105	63	..	34	-66	200	58
	2018	242	56	..	64	0	235	68
	2019	225	40	..	68	-13	210	61
Venezuela (Bolivar. Rep.)	2016	12,032	0	9,330	138	..	2,564	86
	2017	10,201	0	7,523	116	..	2,562	87
	2018	8,618	..	7,782	94	..	742	26
	2019	5,831	..	3,366	61	..	2,404	84
<b>Asia</b>	<b>2016</b>	<b>195,479</b>	<b>137,716</b>	<b>100,978</b>	<b>97,537</b>	<b>-2,362</b>	<b>137,041</b>	<b>31</b>
	<b>2017</b>	<b>201,275</b>	<b>143,260</b>	<b>111,142</b>	<b>101,708</b>	<b>-152</b>	<b>131,838</b>	<b>29</b>
	<b>2018</b>	<b>198,694</b>	<b>140,445</b>	<b>104,980</b>	<b>99,615</b>	<b>-2,463</b>	<b>137,006</b>	<b>30</b>
	<b>2019</b>	<b>189,015</b>	<b>128,630</b>	<b>90,640</b>	<b>99,837</b>	<b>250</b>	<b>126,919</b>	<b>28</b>
Afghanistan	2016	*10	*1	..	..	..	*11	0
	2017	*12	*1	..	..	..	*13	0
	2018	*20	*1	..	..	..	*21	*1
	2019	*12	*1	..	..	..	*13	0

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Azerbaijan	2016	399	187	23	..	-118	681	70
	2017	236	198	12	..	83	339	34
	2018	107	..	19	..	46	42	4
	2019	127	..	0	..	49	77	8
Bahrain	2016	2,484	..	2,443	..	41	0	0
	2017	2,750	..	2,777	..	-27	0	0
	2018	2,599	..	2,564	..	35	0	0
	2019	2,662	..	2,690	..	-28	0	0
Bangladesh	2016	363	335	..	115	..	583	4
	2017	443	521	..	122	..	842	5
	2018	304	678	..	121	..	860	5
	2019	344	651	..	144	..	851	5
Bhutan	2016	..	1	..	..	..	1	2
	2017	..	2	..	..	..	2	2
	2018	..	3	..	..	..	3	4
	2019	..	1	..	..	..	1	2
Brunei Darussalam	2016	39	..	..	39	..	0	0
	2017	..	..	..	..	..	..	..
	2018	..	..	..	..	..	..	..
	2019	..	..	..	..	..	..	..
Cambodia	2016	..	140	..	..	..	140	9
	2017	..	78	..	..	..	78	5
	2018	..	85	..	..	..	85	5
	2019	..	253	..	..	..	253	15
China	2016	42,369	11,744	9,856	9,251	-64	35,070	25
	2017	45,635	13,568	11,089	9,663	662	37,789	27
	2018	38,997	16,656	12,300	10,489	-874	33,739	24
	2019	45,061	14,855	11,177	9,738	1,350	37,651	26
China, Hong Kong SAR	2016	..	7,251	264	6,529	458	0	0
	2017	..	7,958	168	8,042	-251	-1	0
	2018	..	7,303	90	7,502	-348	59	8
	2019	..	6,749	186	6,439	123	1	0
China, Macao SAR	2016	..	148	..	..	-3	151	246
	2017	..	128	..	..	8	120	193
	2018	..	37	..	..	-7	44	70
	2019	..	21	..	..	-13	34	53
Cyprus	2016	..	1,095	..	193	-4	906	774
	2017	..	980	..	154	18	808	685
	2018	..	1,016	..	154	19	842	708
	2019	..	968	..	156	4	807	673
Georgia	2016	8	44	19	..	-23	57	14
	2017	9	87	32	..	1	63	16
	2018	9	89	95	..	-1	3	1
	2019	16	0	15	..	0	0	0
India	2016	9,962	956	2,248	1,506	..	7,164	5
	2017	9,486	1,273	2,492	1,578	..	6,689	5
	2018	10,032	1,419	2,197	*1,685	..	7,569	6
	2019	8,609	4,583	1,527	*1,725	..	9,940	7
Indonesia	2016	1,305	719	342	137	0	1,545	6
	2017	1,027	643	262	144	0	1,264	5
	2018	1,258	493	176	0	2	1,573	6
	2019	1,168	198	0	2	0	1,363	5

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Iran (Islamic Rep. of)	2016	21,964	..	15,817	1,826	..	4,321	54
	2017	19,707	..	15,843	1,179	..	2,685	33
	2018	24,238	..	15,955	1,179	..	7,104	87
	2019	22,048	..	16,688	1,179	..	4,181	50
Iraq	2016	12,774	..	330	284	..	12,160	332
	2017	14,573	..	3,658	286	..	10,629	283
	2018	16,182	..	1,098	291	..	14,793	385
	2019	16,880	..	3,882	299	..	12,699	323
Israel	2016	2,715	0	2,369	128	-68	286	35
	2017	2,667	..	2,453	200	66	-52	-6
	2018	2,576	..	2,067	259	-4	254	30
	2019	2,425	..	2,011	281	-54	187	22
Japan	2016	17,758	2,265	3,065	4,150	-31	12,839	100
	2017	15,334	2,164	2,411	3,983	-90	11,193	88
	2018	14,735	1,730	2,715	4,237	106	9,407	74
	2019	14,321	479	2,978	4,275	-240	7,787	61
Jordan	2016	599	0	..	85	8	506	53
	2017	564	0	..	73	29	462	47
	2018	458	0	..	*47	-2	413	41
	2019	464	..	..	32	..	431	43
Kazakhstan	2016	3,101	0	*1,856	..	-26	1,271	71
	2017	3,365	..	*1,733	..	-1	1,633	90
	2018	2,948	66	3,002	..	16	-3	0
	2019	2,875	1	2,622	..	7	247	13
Korea, Dem.Ppl's.Rep.	2016	109	422	..	..	..	531	21
	2017	109	350	..	..	..	459	18
	2018	109	343	..	..	..	452	18
	2019	109	415	..	..	..	524	20
Korea, Republic of	2016	10,383	7,052	1,956	9,172	-352	6,659	131
	2017	9,874	5,952	2,463	8,743	240	4,380	86
	2018	10,200	6,589	4,036	8,275	49	4,429	87
	2019	8,526	4,753	2,649	6,715	-298	4,214	82
Kuwait	2016	10,002	..	4,540	1,019	-928	5,371	1,357
	2017	8,723	..	3,816	889	-1,341	5,359	1,321
	2018	8,642	..	3,699	880	-1,461	5,524	1,335
	2019	8,357	..	3,261	851	-591	4,836	1,149
Kyrgyzstan	2016	75	33	0	..	-39	147	24
	2017	63	76	7	..	16	116	19
	2018	156	14	34	..	-36	172	27
	2019	115	58	44	..	3	126	20
Lao People's Dem. Rep.	2016	..	11	..	..	..	11	2
	2017	..	11	..	..	..	11	2
	2018	..	16	..	..	..	16	2
	2019	..	*11	..	..	..	*11	*2
Lebanon	2016	..	1,732	..	*30	..	1,702	253
	2017	..	2,095	..	*30	..	2,065	303
	2018	..	2,048	..	30	..	2,018	294
	2019	..	1,852	..	*30	..	1,822	266
Malaysia	2016	1,492	51	610	299	-39	673	22
	2017	1,739	228	622	300	11	1,034	33
	2018	2,452	103	1,375	321	526	333	11
	2019	2,322	127	1,670	335	..	444	14

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Mongolia	2016	..	3	..	..	..	3	1
	2017	..	2	..	..	..	2	1
	2018	..	3	..	..	..	3	1
	2019	..	3	..	..	..	3	1
Myanmar	2016	67	..	..	..	18	49	1
	2017	78	..	..	..	34	44	1
	2018	37	..	..	..	-7	44	1
	2019	23	..	..	..	..	23	0
Oman	2016	278	..	285	*36	..	-43	-10
	2017	372	..	377	*24	..	-29	-6
	2018	277	..	276	*43	..	-42	-9
	2019	286	..	228	*97	..	-39	-8
Other Asia	2016	5,125	1,687	1,267	1,193	-102	4,454	189
	2017	4,953	2,464	1,543	1,103	-27	4,798	203
	2018	4,173	2,136	1,866	1,040	-188	3,590	151
	2019	3,690	1,233	1,760	1,079	-230	2,314	97
Pakistan	2016	3,054	6,533	1	91	-153	9,648	47
	2017	3,303	4,247	..	39	*-153	7,664	37
	2018	3,398	552	..	35	0	3,915	18
	2019	2,702	775	..	30	..	3,447	16
Philippines	2016	781	1,082	239	46	-37	1,615	16
	2017	977	1,046	433	90	26	1,474	14
	2018	737	792	259	67	-2	1,205	11
	2019	702	765	287	42	-25	1,162	11
Qatar	2016	225	..	211	..	..	14	5
	2017	234	..	249	..	..	-15	-6
	2018	146	..	144	..	..	2	1
	2019	141	..	141	..	..	0	0
Saudi Arabia	2016	25,425	7,542	8,785	3,453	-290	21,019	648
	2017	25,699	10,547	14,015	3,325	-19	18,925	572
	2018	25,106	16,772	10,791	3,518	159	27,410	813
	2019	23,344	*11,102	*4,456	*3,358	*-77	26,709	779
Singapore	2016	4,279	71,052	31,812	46,624	-408	-2,697	-477
	2017	5,383	76,356	32,529	48,615	451	144	25
	2018	5,461	68,809	26,489	47,513	-749	1,017	177
	2019	4,924	59,798	23,331	43,581	41	-2,232	-385
Sri Lanka	2016	479	350	56	594	-525	703	33
	2017	494	581	0	564	-121	632	30
	2018	424	553	26	603	-42	390	18
	2019	483	504	..	603	-52	436	20
State of Palestine	2016	..	5	..	..	..	5	1
	2017	..	5	..	..	..	5	1
	2018	..	7	..	..	..	7	1
	2019	..	4	..	..	..	4	1
Syrian Arab Republic	2016	2,886	0	..	4	..	2,882	165
	2017	3,205	..	..	2	..	3,203	187
	2018	3,001	..	..	2	..	2,999	177
	2019	2,592	..	..	1	..	2,591	152
Tajikistan	2016	7	16	..	..	..	23	3
	2017	9	25	..	..	..	34	4
	2018	26	24	..	..	..	50	6
	2019	15	23	..	..	..	38	4

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Thailand	2016	5,326	113	3,059	1,219	238	923	13
	2017	5,526	55	3,309	1,165	311	796	12
	2018	5,580	8	3,242	1,391	256	698	10
	2019	5,152	23	3,021	1,170	287	697	10
Turkey	2016	2,835	1,707	1,652	812	90	1,988	25
	2017	2,987	2,105	1,495	794	-138	2,941	36
	2018	2,189	2,404	1,112	845	49	2,587	31
	2019	3,114	2,047	2,126	768	-3	2,270	27
Turkmenistan	2016	1,690	..	759	..	..	931	164
	2017	1,690	..	759	..	..	931	162
	2018	1,690	..	759	..	..	931	159
	2019	1,690	..	759	..	..	931	157
United Arab Emirates	2016	4,732	12,098	6,912	*8,442	..	1,476	158
	2017	9,608	*8,530	6,321	10,338	57	1,422	150
	2018	9,854	*8,601	8,201	8,751	..	1,502	156
	2019	2,958	15,182	2,799	16,665	..	-1,324	-136
Uzbekistan	2016	93	..	..	..	-9	102	3
	2017	112	..	..	..	1	110	3
	2018	143	74	..	..	-6	222	7
	2019	211	124	..	..	-3	338	10
Viet Nam	2016	138	883	202	207	4	608	6
	2017	136	597	274	214	..	245	3
	2018	200	699	394	286	..	219	2
	2019	178	833	332	183	..	496	5
Yemen	2016	148	458	0	53	..	553	20
	2017	194	387	..	50	..	531	19
	2018	232	324	..	51	..	505	18
	2019	373	239	..	58	..	553	19
<b>Europe</b>	<b>2016</b>	<b>145,842</b>	<b>68,128</b>	<b>138,115</b>	<b>40,602</b>	<b>-1,163</b>	<b>36,416</b>	<b>49</b>
	<b>2017</b>	<b>141,037</b>	<b>51,037</b>	<b>115,790</b>	<b>41,378</b>	<b>-2,450</b>	<b>37,356</b>	<b>50</b>
	<b>2018</b>	<b>132,968</b>	<b>49,998</b>	<b>106,407</b>	<b>42,157</b>	<b>-666</b>	<b>35,068</b>	<b>47</b>
	<b>2019</b>	<b>129,409</b>	<b>45,590</b>	<b>102,800</b>	<b>41,297</b>	<b>174</b>	<b>30,727</b>	<b>41</b>
Albania	2016	1	0	..	..	..	1	0
	2017	0	0	..	..	..	0	0
	2018	..	1	..	..	..	1	1
	2019	..	3	..	..	..	3	1
Austria	2016	898	16	576	..	-119	457	52
	2017	839	68	437	..	-71	541	61
	2018	710	65	467	..	-17	325	37
	2019	735	44	455	..	-58	382	43
Belarus	2016	5,569	38	4,970	..	9	628	66
	2017	5,112	0	4,685	..	-2	429	45
	2018	5,409	..	5,019	..	-9	399	42
	2019	4,382	..	4,062	..	-1	321	34
Belgium	2016	5,349	4,079	4,183	5,443	83	-281	-25
	2017	7,488	4,988	6,284	6,715	-33	-490	-43
	2018	7,507	6,127	5,794	8,327	53	-540	-47
	2019	4,585	5,733	4,296	7,336	76	-1,389	-120
Bosnia and Herzegovina	2016	69	40	1	..	-13	121	36
	2017	81	56	2	..	..	135	40
	2018	57	52	3	..	..	106	32
	2019	25	31	15	..	-4	45	14

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bulgaria	2016	1,297	73	1,262	19	-7	96	13
	2017	974	58	900	24	-28	136	19
	2018	948	27	847	25	25	77	11
	2019	581	35	544	17	13	43	6
Croatia	2016	601	46	451	2	29	165	39
	2017	577	48	520	3	-69	170	41
	2018	669	57	595	5	6	121	29
	2019	397	41	350	5	-5	88	21
Czechia	2016	104	0	84	..	-22	42	4
	2017	169	..	149	..	-26	46	4
	2018	137	2	137	..	-32	34	3
	2019	139	..	119	..	-8	28	3
Denmark	2016	1,771	3,412	4,527	258	-194	592	104
	2017	1,626	980	2,445	139	-483	506	88
	2018	1,870	1,796	2,843	221	-170	773	134
	2019	1,559	2,432	2,946	377	391	277	48
Estonia	2016	..	371	176	167	3	25	19
	2017	..	441	203	207	20	11	8
	2018	..	474	321	140	4	9	7
	2019	..	437	337	106	-20	15	11
Faeroe Islands	2016	..	*77	..	16	..	*60	*1,249
	2017	..	*88	..	21	..	*67	*1,385
	2018	..	*89	..	21	..	*68	*1,398
	2019	..	*98	..	26	..	*72	*1,481
Finland	2016	1,554	1,221	1,324	253	-104	1,302	237
	2017	1,614	902	1,190	288	21	1,017	185
	2018	1,543	449	1,165	276	64	487	88
	2019	1,412	601	1,175	272	-122	688	124
France	2016	7,686	4,203	5,827	1,442	-165	4,785	72
	2017	6,403	3,584	4,774	1,597	-82	3,698	55
	2018	5,853	3,422	4,895	1,842	-100	2,638	39
	2019	6,176	2,883	3,852	1,617	77	3,513	52
Germany	2016	7,374	2,531	2,154	1,855	199	5,697	69
	2017	7,376	2,276	1,862	1,457	-8	6,341	77
	2018	7,296	2,144	2,658	981	17	5,784	70
	2019	7,034	1,628	2,736	668	-122	5,380	64
Gibraltar	2016	..	3,463	..	3,412	..	51	1,512
	2017	..	3,842	..	3,799	..	43	1,275
	2018	..	3,762	..	3,711	..	51	1,513
	2019	..	3,835	..	3,800	..	35	1,036
Greece	2016	6,150	1,617	3,739	1,462	-98	2,664	251
	2017	7,028	1,745	4,300	1,864	105	2,503	237
	2018	6,551	1,725	3,852	1,936	-150	2,638	251
	2019	5,172	2,331	2,737	2,220	123	2,423	231
Hungary	2016	39	9	27	..	-20	41	4
	2017	78	20	50	..	-2	50	5
	2018	43	24	14	..	16	37	4
	2019	21	11	3	..	-2	31	3
Iceland	2016	..	101	..	24	-1	78	235
	2017	..	102	..	34	2	66	198
	2018	..	119	..	34	3	83	245
	2019	..	57	..	19	-12	50	148



Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Ireland	2016	1,070	60	1,060	11	-34	93	20
	2017	1,042	62	1,058	14	-14	46	10
	2018	976	97	1,002	16	-24	79	16
	2019	725	114	724	10	1	103	21
Italy	2016	8,074	827	4,663	1,995	-144	2,387	39
	2017	8,511	847	5,258	2,075	-88	2,113	35
	2018	6,858	1,692	4,449	2,302	39	1,761	29
	2019	6,709	1,008	3,718	2,201	57	1,741	29
Kosovo	2016	..	22	..	..	..	22	12
	2017	..	26	..	..	..	26	15
	2018	..	21	..	..	..	21	12
	2019	..	20	..	..	..	20	11
Latvia	2016	..	157	2	153	2	0	0
	2017	..	127	1	126	-1	1	0
	2018	..	4	..	2	-1	3	2
	2019	..	44	..	43	-1	2	1
Lithuania	2016	1,840	107	1,749	99	17	82	28
	2017	1,688	113	1,658	106	-29	66	23
	2018	1,681	129	1,640	122	-10	59	21
	2019	1,539	123	1,549	120	-26	19	7
Luxembourg	2016	..	1	..	..	..	1	2
	2017	..	2	0	..	..	2	4
	2018	..	3	0	..	..	3	4
	2019	..	2	0	..	..	2	3
Malta	2016	..	1,793	24	1,552	34	183	420
	2017	..	2,022	83	1,888	-2	53	121
	2018	..	2,109	161	1,923	20	5	12
	2019	..	2,115	246	1,962	-100	6	14
Montenegro	2016	..	4	0	..	1	3	5
	2017	..	4	..	..	2	2	3
	2018	..	4	..	..	2	2	3
	2019	..	3	0	..	1	2	3
Netherlands	2016	11,961	31,645	31,729	9,901	-256	2,232	131
	2017	11,684	16,060	15,064	9,585	-1,057	4,152	244
	2018	11,077	13,047	11,314	9,213	-9	3,607	211
	2019	8,909	11,709	9,682	9,395	86	1,455	85
North Macedonia	2016	0	97	5	..	2	91	44
	2017	0	79	3	..	-1	77	37
	2018	..	67	3	..	-3	68	32
	2019	..	81	5	..	2	74	36
Norway	2016	1,290	1,350	1,058	22	-1	1,561	297
	2017	1,545	1,888	1,432	26	-60	2,035	384
	2018	1,474	1,440	1,419	30	25	1,440	270
	2019	1,806	1,012	1,661	36	-31	1,153	214
Poland	2016	3,609	47	2,514	53	2	1,087	29
	2017	3,436	38	2,471	53	18	932	25
	2018	3,630	48	2,774	78	-2	828	22
	2019	3,115	16	2,283	81	-27	794	21
Portugal	2016	2,675	223	1,710	661	-61	588	57
	2017	2,645	158	1,607	672	-16	540	52
	2018	2,358	443	1,307	699	229	567	55
	2019	2,114	189	1,113	831	-191	549	54

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Republic of Moldova	2016	13	29	9	..	16	17	4
	2017	11	10	9	..	-3	15	4
	2018	6	7	3	..	..	10	2
	2019	4	6	..	..	5	5	1
Romania	2016	218	..	168	..	-34	84	4
	2017	182	..	158	..	-17	41	2
	2018	196	..	124	..	15	58	3
	2019	193	5	139	..	-3	61	3
Russian Federation	2016	61,426	2	*52,109	3,305	-124	6,138	42
	2017	56,018	12	*47,448	2,747	-159	5,994	41
	2018	50,147	0	*42,068	2,035	-181	6,224	43
	2019	58,417	109	49,104	1,973	-230	7,679	53
Serbia	2016	389	25	50	..	-7	371	52
	2017	380	9	55	..	10	324	46
	2018	361	7	28	..	2	338	48
	2019	257	9	7	..	-1	260	37
Slovakia	2016	470	142	339	..	35	238	44
	2017	363	133	307	..	-26	215	39
	2018	482	77	319	..	14	226	41
	2019	535	44	344	..	13	222	41
Slovenia	2016	..	436	311	124	..	1	0
	2017	..	409	252	157	..	0	0
	2018	..	442	232	210	..	0	0
	2019	..	302	137	165	..	0	0
Spain	2016	5,109	6,144	3,023	6,136	117	1,977	42
	2017	5,532	7,020	3,642	5,571	99	3,240	69
	2018	6,000	7,371	3,761	5,926	-199	3,883	83
	2019	5,056	6,843	2,701	5,713	25	3,460	74
Sweden	2016	4,003	2,057	4,547	1,348	-104	269	27
	2017	4,010	1,577	4,148	1,641	-459	257	26
	2018	5,150	1,799	4,362	1,267	-263	1,583	159
	2019	4,413	842	3,186	1,573	285	211	21
Switzerland	2016	319	1	350	..	-39	9	1
	2017	290	..	274	..	9	7	1
	2018	316	0	304	..	11	1	0
	2019	311	1	327	..	-14	0	0
Ukraine	2016	590	380	3	..	-62	1,029	23
	2017	444	273	..	..	-24	741	17
	2018	429	42	..	..	3	468	11
	2019	74	1	13	..	-31	93	2
United Kingdom	2016	4,324	1,282	3,391	889	-103	1,429	22
	2017	3,893	970	3,062	570	25	1,207	18
	2018	3,233	812	2,527	818	-42	743	11
	2019	3,015	792	2,235	731	28	813	12
<b>Oceania</b>	<b>2016</b>	<b>1,114</b>	<b>1,461</b>	<b>347</b>	<b>758</b>	<b>-52</b>	<b>1,521</b>	<b>38</b>
	<b>2017</b>	<b>1,220</b>	<b>1,317</b>	<b>473</b>	<b>767</b>	<b>71</b>	<b>1,226</b>	<b>30</b>
	<b>2018</b>	<b>1,353</b>	<b>1,985</b>	<b>424</b>	<b>798</b>	<b>138</b>	<b>1,977</b>	<b>48</b>
	<b>2019</b>	<b>1,459</b>	<b>2,057</b>	<b>337</b>	<b>977</b>	<b>22</b>	<b>2,180</b>	<b>52</b>
American Samoa	2016	..	0	..	..	..	0	*2
	2017	..	0	..	..	..	0	*2
	2018	..	0	..	..	..	0	*2
	2019	..	0	..	..	..	0	*2

Table 22

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Australia	2016	516	312	171	490	-23	190	8
	2017	644	214	301	502	16	39	2
	2018	765	686	224	504	143	580	23
	2019	909	703	203	677	0	732	29
Cook Islands	2016	..	*4	..	*1	..	*2	*127
	2017	..	*4	..	*2	..	*2	*134
	2018	..	*4	..	*2	..	*2	*134
	2019	..	*4	..	*2	..	*2	*137
Fiji	2016	..	78	15	..	-3	66	76
	2017	..	*92	*20	..	..	*71	*81
	2018	..	*100	*29	*5	..	*66	*75
	2019	..	*108	*37	*5	..	*66	*74
French Polynesia	2016	..	67	..	..	1	67	243
	2017	..	68	..	..	2	66	240
	2018	..	70	..	..	1	69	248
	2019	..	73	..	..	4	69	246
Nauru	2016	..	*9	..	5	..	*4	*401
	2017	..	*9	..	*4	..	*5	*473
	2018	..	*9	..	*4	..	*5	*440
	2019	..	*9	..	*4	..	*5	*427
New Caledonia	2016	..	501	..	..	-6	507	1,849
	2017	..	466	..	..	31	434	1,567
	2018	..	449	..	..	-13	462	1,649
	2019	..	458	..	..	19	439	1,553
New Zealand	2016	463	0	161	248	3	51	11
	2017	435	..	151	245	6	33	7
	2018	465	..	171	271	-3	26	6
	2019	422	23	97	276	-3	74	16
Palau	2016	..	*31	..	..	..	*31	*1,744
	2017	..	*32	..	..	..	*32	*1,797
	2018	..	*31	..	..	..	*31	*1,753
	2019	..	*32	..	..	..	*32	*1,767
Papua New Guinea	2016	135	429	..	9	-25	579	70
	2017	141	396	..	9	9	519	61
	2018	122	605	..	7	9	711	83
	2019	*128	*635	..	*8	*10	*746	*85
Tonga	2016	..	25	..	0	*1	23	231
	2017	..	32	..	0	*7	24	239
	2018	..	26	..	0	*1	24	234
	2019	..	7	..	0	*-9	*15	*147
Vanuatu	2016	..	*4	..	*4	..	0	0
	2017	..	*5	..	*5	..	0	0
	2018	..	*5	..	*5	..	0	0
	2019	..	*6	..	*6	..	0	0





## Production of minor oil products from refineries - by type

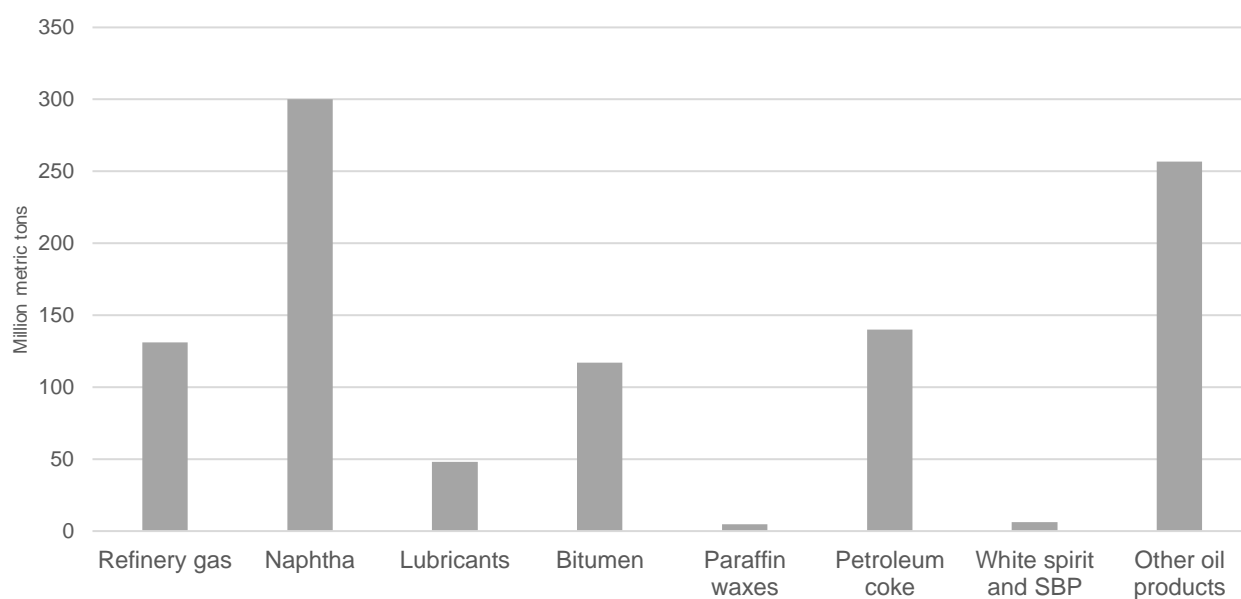
Thousand metric tons

### Table Notes

Data refer to production from refineries of refinery gas, ethane, naphtha, lubricants, bitumen, paraffin waxes, petroleum coke, white spirit, and other oil products (which for this table includes refinery output of feedstocks).

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 63: Production of minor oil products from refineries, 2019\***



\*Ethane is included with other oil products

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
World	2016	129,019	2,119	281,399	37,216	114,474	3,490	150,634	8,778	180,593
	2017	124,722	1,650	291,928	42,123	115,852	4,619	153,856	8,850	195,989
	2018	128,972	2,055	297,748	47,560	115,795	4,687	150,689	6,654	227,466
	2019	130,959	2,021	300,081	48,181	116,904	4,729	140,057	6,158	254,814
Africa	2016	680	..	11,125	482	1,488	10	581	116	1,508
	2017	1,257	..	10,529	551	1,437	10	563	115	1,660
	2018	1,227	..	10,675	572	1,410	10	522	96	2,409
	2019	1,305	..	10,014	585	1,353	10	543	87	1,117
Algeria	2016	..	..	7,929	*55	*144	..	..	..	*236
	2017	..	..	8,143	*73	*127	..	..	..	*184
	2018	..	..	7,634	*98	*115	..	..	..	*134
	2019	..	..	7,268	110	*110	..	..	..	*158
Angola	2016	*79	..	305	..	3	..	..	..	200
	2017	74	..	278	..	16	..	..	..	162
	2018	53	..	244	..	12	..	..	..	207
	2019	74	..	333	..	23	..	..	..	..
Cameroon	2016	67	..	..	..	..	..	..	..	155
	2017	55	..	..	..	..	..	..	..	128
	2018	50	..	..	..	..	..	..	..	116
	2019	26	..	..	..	..	..	..	..	60
Chad	2016	..	..	..	*1	*1	..	*36	..	*14
	2017	..	..	..	*1	*1	..	*36	..	*14
	2018	..	..	..	*1	*1	..	*36	..	*14
	2019	..	..	..	*1	*1	..	*37	..	*15
Congo	2016	..	..	8	..	..	..	..	..	30
	2017	..	..	9	..	..	..	..	..	19
	2018	..	..	9	..	..	..	..	..	19
	2019	..	..	10	..	..	..	..	..	19
Côte d'Ivoire	2016	25	..	..	29	236	..	..	..	..
	2017	19	..	..	36	249	..	..	..	..
	2018	20	..	..	46	259	..	..	..	..
	2019	23	..	..	20	136	..	..	..	..
Egypt	2016	*125	..	1,790	*273	*605	..	*237	..	*343
	2017	136	..	450	297	658	..	257	..	373
	2018	130	..	737	286	633	..	248	..	1,352
	2019	142	..	833	312	691	..	271	..	393
Gabon	2016	..	..	..	11	2	..	..	..	..
	2017	..	..	..	10	2	..	..	..	..
	2018	..	..	..	9	2	..	..	..	..
	2019	..	..	..	8	2	..	..	..	..
Libya	2016	81	..	518	..	21	..	..	..	4
	2017	97	..	667	..	25	..	..	..	5
	2018	113	..	948	..	29	..	..	..	6
	2019	96	..	790	..	25	..	..	..	5
Niger	2016	..	..	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..	..	19
	2018	..	..	..	..	..	..	..	..	19
	2019	..	..	..	..	..	..	..	..	17
Nigeria	2016	77	..	82	..	7	..	9	..	475
	2017	102	..	342	..	0	..	12	..	720
	2018	57	..	158	..	5	..	7	..	492
	2019	12	..	35	..	4	..	1	..	401

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Senegal	2016	23	..	87	..	..	..	..	..	..
	2017	15	..	123	..	..	..	..	..	..
	2018	13	..	76	..	..	..	..	..	..
	2019	12	..	71	..	..	..	..	..	..
South Africa	2016	166	..	166	113	468	10	..	106	39
	2017	723	..	420	133	359	10	..	104	25
	2018	758	..	618	132	354	10	..	83	37
	2019	886	..	632	135	362	10	..	85	36
Sudan	2016	24	..	11	..	..	..	299	..	..
	2017	20	..	4	..	..	..	258	..	..
	2018	*20	..	9	..	..	..	231	..	..
	2019	*20	..	*9	..	..	..	*234	..	..
Tunisia	2016	2	..	230	..	..	..	..	10	..
	2017	4	..	93	..	..	..	..	11	..
	2018	..	..	241	..	..	..	..	13	..
	2019	..	..	33	..	..	..	..	2	..
Zambia	2016	11	..	..	..	..	..	..	..	11
	2017	12	..	..	..	..	..	..	..	12
	2018	13	..	..	..	..	..	..	..	13
	2019	14	..	..	..	..	..	..	..	14
<b>America, North</b>	<b>2016</b>	<b>22,227</b>	<b>72</b>	<b>15,760</b>	<b>9,839</b>	<b>25,706</b>	<b>246</b>	<b>64,526</b>	<b>1,568</b>	<b>15,349</b>
	<b>2017</b>	<b>20,583</b>	<b>116</b>	<b>12,974</b>	<b>10,455</b>	<b>26,089</b>	<b>245</b>	<b>62,760</b>	<b>1,714</b>	<b>15,791</b>
	<b>2018</b>	<b>20,525</b>	<b>128</b>	<b>13,629</b>	<b>10,897</b>	<b>25,929</b>	<b>239</b>	<b>62,082</b>	<b>1,633</b>	<b>16,586</b>
	<b>2019</b>	<b>21,011</b>	<b>107</b>	<b>11,902</b>	<b>10,323</b>	<b>25,441</b>	<b>227</b>	<b>59,564</b>	<b>1,412</b>	<b>21,679</b>
Canada	2016	3,259	..	3,892	954	4,763	..	1,378	74	2,441
	2017	2,645	..	1,749	1,038	5,176	..	1,266	95	2,681
	2018	2,948	..	1,939	1,127	5,420	..	1,301	82	3,372
	2019	3,824	..	1,170	1,598	5,414	..	1,838	49	9,487
Cuba	2016	5	..	232	50	57	..	8	..	..
	2017	3	..	289	51	58	..	2	..	..
	2018	4	..	301	51	63	..	1	..	..
	2019	5	..	*292	*46	38	..	1	..	..
Curaçao	2016	169	..	353	103	121	..	152	..	304
	2017	106	..	63	64	76	..	95	..	190
	2018	52	..	48	32	37	..	47	..	93
	2019	0	..	0	0	0	..	0	..	0
Dominican Republic	2016	13	..	..	..	..	..	..	..	..
	2017	10	..	..	..	..	..	..	..	..
	2018	14	..	..	..	..	..	..	..	..
	2019	11	..	..	..	..	..	..	..	..
Guatemala	2016	..	..	..	..	14	..	..	..	..
	2017	..	..	..	..	38	..	..	..	..
	2018	..	..	..	..	97	..	..	..	..
	2019	..	..	..	..	146	..	..	..	..
Jamaica	2016	..	..	51	..	20	..	..	..	..
	2017	..	..	40	..	18	..	..	..	..
	2018	..	..	0	..	*10	..	..	..	..
	2019	..	..	0	..	*10	..	..	..	..
Mexico	2016	3,190	..	3,008	155	982	26	2,530	..	94
	2017	2,445	..	2,441	99	959	20	1,657	..	108
	2018	1,816	..	2,046	155	805	26	1,030	..	93
	2019	2,319	..	2,201	56	792	24	1,819	..	94



Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Nicaragua	2016	17	..	..	..	19	..	..	12	..
	2017	18	..	..	..	17	..	..	14	..
	2018	15	..	..	..	21	..	..	13	..
	2019	24	..	..	..	4	..	..	10	..
Trinidad and Tobago	2016	59	..	0	..	9	..	..	..	71
	2017	52	..	0	..	12	..	..	..	309
	2018	88	..	..	..	11	..	..	..	50
	2019	..	..	..	..	..	..	..	..	..
United States	2016	15,516	72	8,225	8,577	19,721	220	60,458	1,482	12,439
	2017	15,305	116	8,391	9,203	19,736	225	59,740	1,605	12,503
	2018	15,588	128	9,296	9,533	19,466	213	59,703	1,538	12,978
	2019	14,827	107	8,239	8,623	19,037	203	55,906	1,352	12,098
<b>America, South</b>	<b>2016</b>	<b>7,485</b>	<b>..</b>	<b>5,923</b>	<b>1,116</b>	<b>3,490</b>	<b>60</b>	<b>9,893</b>	<b>621</b>	<b>8,676</b>
	<b>2017</b>	<b>7,469</b>	<b>..</b>	<b>6,017</b>	<b>1,181</b>	<b>3,121</b>	<b>56</b>	<b>9,880</b>	<b>515</b>	<b>7,557</b>
	<b>2018</b>	<b>7,210</b>	<b>..</b>	<b>6,147</b>	<b>1,284</b>	<b>3,174</b>	<b>53</b>	<b>9,621</b>	<b>490</b>	<b>6,566</b>
	<b>2019</b>	<b>6,402</b>	<b>..</b>	<b>6,437</b>	<b>1,253</b>	<b>2,780</b>	<b>53</b>	<b>8,784</b>	<b>432</b>	<b>6,927</b>
Argentina	2016	1,051	..	764	238	334	9	1,406	301	..
	2017	1,017	..	727	219	242	8	1,478	230	..
	2018	1,072	..	400	225	396	7	1,511	201	..
	2019	925	..	640	218	328	8	1,462	196	..
Bolivia (Plur. State of)	2016	97	..	1	25	2	..	..	80	..
	2017	91	..	0	24	2	..	..	52	..
	2018	87	..	0	22	1	..	..	50	..
	2019	74	..	0	39	1	..	..	10	..
Brazil	2016	4,445	..	2,308	546	2,152	..	5,786	238	2,446
	2017	4,549	..	2,248	656	1,955	..	5,618	232	2,370
	2018	4,264	..	2,944	785	1,900	..	5,093	237	2,312
	2019	4,022	..	3,250	784	1,722	..	5,029	224	2,448
Chile	2016	203	..	48	..	..	..	365	..	744
	2017	211	..	75	..	..	..	446	..	579
	2018	215	..	64	..	..	..	443	..	608
	2019	242	..	137	..	..	..	464	..	431
Colombia	2016	..	..	814	141	345	37	583	..	1,362
	2017	..	..	1,070	142	279	37	681	..	1,035
	2018	..	..	1,164	139	263	37	953	..	439
	2019	..	..	942	139	198	37	891	..	1,493
Ecuador	2016	2	..	..	..	..	..	..	..	920
	2017	2	..	..	..	..	..	..	..	923
	2018	1	..	..	..	..	..	..	..	848
	2019	1	..	..	..	..	..	..	..	824
Peru	2016	137	..	..	..	..	..	..	..	239
	2017	151	..	..	..	..	..	..	..	274
	2018	139	..	..	..	..	..	..	..	276
	2019	149	..	..	..	..	..	..	..	248
Suriname	2016	..	..	..	..	5	..	..	..	..
	2017	..	..	..	..	5	..	..	..	..
	2018	..	..	..	..	4	..	..	..	..
	2019	..	..	..	..	10	..	..	..	..
Uruguay	2016	62	..	..	..	40	..	38	2	..
	2017	18	..	..	..	26	..	10	0	..
	2018	58	..	..	..	102	..	37	2	..
	2019	54	..	..	..	75	..	31	2	..

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Venezuela (Bolivar. Rep.)	2016	1,488	..	1,988	166	612	14	1,715	..	2,965
	2017	1,430	..	1,897	140	612	11	1,648	..	2,376
	2018	1,374	..	1,575	113	507	9	1,584	..	2,083
	2019	934	..	1,468	73	445	8	907	..	1,484
<b>Asia</b>	<b>2016</b>	<b>59,364</b>	<b>0</b>	<b>180,672</b>	<b>14,835</b>	<b>56,279</b>	<b>2,440</b>	<b>59,360</b>	<b>3,530</b>	<b>128,966</b>
	<b>2017</b>	<b>56,202</b>	<b>0</b>	<b>188,213</b>	<b>15,291</b>	<b>58,612</b>	<b>3,375</b>	<b>63,685</b>	<b>3,644</b>	<b>142,779</b>
	<b>2018</b>	<b>61,107</b>	..	<b>193,420</b>	<b>16,058</b>	<b>58,646</b>	<b>3,288</b>	<b>62,136</b>	<b>2,469</b>	<b>170,718</b>
	<b>2019</b>	<b>63,498</b>	..	<b>200,687</b>	<b>15,219</b>	<b>60,409</b>	<b>3,410</b>	<b>54,451</b>	<b>2,226</b>	<b>192,440</b>
Afghanistan	2016	..	..	..	..	*10	..	..	..	..
	2017	..	..	..	..	*12	..	..	..	..
	2018	..	..	..	..	*20	..	..	..	..
	2019	..	..	..	..	*12	..	..	..	..
Azerbaijan	2016	231	..	174	10	179	..	207	..	380
	2017	214	..	169	39	237	..	227	..	585
	2018	214	..	205	52	290	..	244	..	606
	2019	242	..	*243	36	260	..	238	..	626
Bahrain	2016	..	..	1,565	..	450	..	..	..	441
	2017	..	..	1,494	..	298	..	..	..	568
	2018	..	..	1,655	..	316	..	..	..	551
	2019	..	..	1,706	..	331	..	..	..	489
Bangladesh	2016	13	..	132	17	65	..	..	3	17
	2017	16	..	161	19	79	..	..	4	21
	2018	14	..	97	20	58	..	..	5	21
	2019	15	..	101	23	70	..	..	3	11
Brunei Darussalam	2016	10	..	..	..	..	..	..	..	..
	2017	3	..	..	..	..	..	..	..	..
	2018	18	..	..	..	..	..	..	..	..
	2019	14	..	..	..	..	..	..	..	243
China	2016	18,923	..	50,324	1,474	21,716	2,122	25,909	2,325	87,822
	2017	19,825	..	53,339	1,998	25,828	2,982	28,217	1,712	96,284
	2018	20,132	..	60,255	2,206	26,877	2,795	26,636	1,088	118,749
	2019	21,879	..	66,201	2,324	29,704	3,089	28,388	824	149,225
Georgia	2016	..	..	..	..	..	..	..	..	..
	2017	..	..	3	..	..	..	..	..	..
	2018	..	..	3	..	..	..	..	..	..
	2019	..	..	4	..	..	..	..	..	..
India	2016	*12,268	..	17,607	1,029	5,185	85	*13,936	..	22,507
	2017	*9,825	..	18,786	1,036	5,277	104	14,754	..	26,210
	2018	*14,117	..	*18,536	949	5,803	*117	*14,676	..	*29,973
	2019	*15,470	..	*19,399	932	5,244	*96	15,528	..	18,384
Indonesia	2016	655	..	1,371	282	192	20	436	26	2,689
	2017	673	..	1,565	344	112	16	497	26	4,195
	2018	690	..	1,666	390	164	19	554	27	4,096
	2019	*694	..	1,619	326	100	19	550	19	*4,096
Iran (Islamic Rep. of)	2016	1,951	0	3,505	1,738	6,046	..	..	396	826
	2017	1,581	0	3,000	1,761	4,837	..	..	541	753
	2018	1,545	..	3,030	1,720	4,662	..	..	528	761
	2019	1,543	..	3,103	1,797	4,872	..	..	552	779
Iraq	2016	137	..	480	45	88	1	..	..	..
	2017	164	..	571	52	140	110	..	..	113
	2018	192	..	442	53	143	112	..	..	123
	2019	206	..	2,069	77	208	4	..	..	167

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Israel	2016	616	..	1,095	..	280	..	..	..	541
	2017	569	..	1,201	..	310	..	..	..	458
	2018	567	..	1,153	..	308	..	..	..	588
	2019	615	..	1,383	..	264	..	..	..	401
Japan	2016	6,557	..	14,656	2,201	3,249	58	1,267	74	2,327
	2017	6,515	..	13,175	1,958	3,051	64	1,320	72	2,222
	2018	6,356	..	12,385	2,181	2,854	70	1,345	71	2,192
	2019	5,833	..	12,546	2,013	2,744	71	1,075	62	2,038
Jordan	2016	*36	..	..	24	238	..	..	..	*4
	2017	*33	..	..	23	226	..	..	..	*4
	2018	42	..	..	19	127	..	..	..	*3
	2019	*40	..	..	20	45	..	..	..	*3
Kazakhstan	2016	111	..	..	53	605	..	311	..	..
	2017	161	..	..	24	809	..	474	0	..
	2018	177	..	..	26	926	..	530	6	..
	2019	264	..	..	32	989	..	507	9	..
Korea, Republic of	2016	4,566	..	31,503	2,569	5,064	16	372	388	2,834
	2017	3,831	..	35,356	2,747	5,185	18	404	506	2,856
	2018	4,365	..	36,933	3,307	4,489	15	408	456	2,737
	2019	4,729	..	36,758	2,567	5,043	19	634	472	2,708
Kuwait	2016	383	..	7,120	..	99	..	..	..	560
	2017	310	..	5,675	..	118	..	..	..	454
	2018	322	..	5,613	..	183	..	..	..	471
	2019	288	..	5,561	..	241	..	..	..	..
Kyrgyzstan	2016	..	..	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..	..	..
	2018	..	..	..	..	35	..	..	..	..
	2019	..	..	..	..	2	..	..	..	..
Malaysia	2016	198	..	2,744	972	197	93	265	..	..
	2017	172	..	2,356	368	171	23	166	..	..
	2018	128	..	1,818	279	405	32	20	..	..
	2019	113	..	*1,506	*231	*335	*27	17	..	..
Myanmar	2016	..	..	..	..	..	1	13	..	5
	2017	..	..	..	..	..	0	12	..	5
	2018	..	..	..	..	..	0	9	..	4
	2019	..	..	..	..	..	0	11	..	0
Oman	2016	93	..	482	46	..	..	..	..	192
	2017	124	..	939	62	..	..	..	..	357
	2018	149	..	1,375	75	..	..	..	..	1,068
	2019	136	..	1,374	68	..	..	..	..	1,043
Other Asia	2016	2,096	..	7,074	610	664	..	1,266	63	668
	2017	1,887	..	7,667	672	547	..	1,175	59	839
	2018	2,295	..	8,696	551	630	..	1,276	35	957
	2019	2,331	..	8,587	663	665	..	1,228	36	954
Pakistan	2016	190	..	767	192	223	*12	..	..	*35
	2017	..	..	781	180	*291	2	..	..	60
	2018	33	..	794	178	288	0	..	..	60
	2019	21	..	570	176	193	2	..	..	*30
Philippines	2016	..	..	256	..	..	..	..	..	1,278
	2017	..	..	200	..	..	..	..	..	1,266
	2018	..	..	241	..	16	..	..	..	1,496
	2019	..	..	161	..	47	..	..	..	782

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Qatar	2016	61	..	3,997	..	..	..	..	..	740
	2017	58	..	5,592	..	..	..	..	..	527
	2018	58	..	4,965	..	..	..	..	..	720
	2019	63	..	4,689	..	..	..	..	..	1,730
Saudi Arabia	2016	4,291	..	8,669	..	3,016	..	14,477	..	*397
	2017	4,300	..	8,499	..	2,778	..	15,231	..	*610
	2018	4,248	..	6,877	..	2,326	..	15,299	..	1,307
	2019	*3,704	..	5,819	..	2,365	..	4,805	..	*503
Singapore	2016	3,155	..	3,667	3,162	3,432	20	137	232	699
	2017	3,251	..	4,494	3,230	2,945	28	245	705	1,035
	2018	3,107	..	2,898	3,110	2,871	76	232	216	410
	2019	2,978	..	4,296	3,184	2,746	75	224	206	350
Sri Lanka	2016	14	..	144	..	0	..	..	1	..
	2017	13	..	142	..	0	..	..	1	..
	2018	13	..	141	..	..	..	..	2	..
	2019	15	..	162	..	..	..	..	2	..
Syrian Arab Republic	2016	94	..	577	26	321	..	..	..	17
	2017	104	..	641	29	356	..	..	..	19
	2018	98	..	600	27	334	..	..	..	18
	2019	84	..	518	23	288	..	..	..	15
Tajikistan	2016	..	..	*9	..	3	..	..	..	..
	2017	..	..	..	..	3	..	..	..	..
	2018	..	..	..	..	3	..	..	..	..
	2019	..	..	..	..	3	..	..	..	..
Thailand	2016	546	..	10,478	..	1,364	..	..	..	1,637
	2017	565	..	10,430	..	1,361	..	..	..	1,130
	2018	565	..	10,431	..	1,377	..	..	..	1,131
	2019	507	..	9,445	..	1,257	..	..	..	1,014
Turkey	2016	1,541	..	320	128	3,436	..	733	12	342
	2017	1,354	..	343	187	3,496	..	934	7	917
	2018	1,004	..	375	218	2,981	32	868	5	720
	2019	1,084	..	1,138	125	2,248	..	1,213	11	1,901
Turkmenistan	2016	120	..	..	..	..	..	..	..	370
	2017	112	..	..	..	..	..	..	..	370
	2018	106	..	..	..	..	..	..	..	370
	2019	104	..	..	..	..	..	..	..	370
United Arab Emirates	2016	*422	..	11,782	181	..	..	..	..	1,620
	2017	447	..	11,407	477	..	..	..	..	779
	2018	437	..	11,963	578	..	..	..	..	1,332
	2019	413	..	11,291	541	..	..	..	..	4,114
Uzbekistan	2016	86	..	..	76	152	12	31	11	..
	2017	94	..	..	84	138	27	29	12	..
	2018	114	..	..	98	153	21	39	31	..
	2019	*114	..	..	60	117	8	32	30	..
Viet Nam	2016	..	..	..	..	..	..	..	..	18
	2017	..	..	..	..	..	..	..	..	144
	2018	..	..	..	20	..	..	..	..	254
	2019	..	..	..	..	..	..	..	..	465
Yemen	2016	..	..	174	..	6	..	..	..	..
	2017	..	..	229	..	8	..	..	..	..
	2018	..	..	273	..	9	..	..	..	..
	2019	..	..	438	..	15	..	..	..	..

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
<b>Europe</b>	<b>2016</b>	<b>38,254</b>	<b>2,047</b>	<b>67,069</b>	<b>10,945</b>	<b>27,195</b>	<b>734</b>	<b>15,850</b>	<b>2,867</b>	<b>25,865</b>
	<b>2017</b>	<b>38,189</b>	<b>1,534</b>	<b>73,357</b>	<b>14,645</b>	<b>26,392</b>	<b>933</b>	<b>16,593</b>	<b>2,796</b>	<b>28,034</b>
	<b>2018</b>	<b>37,845</b>	<b>1,927</b>	<b>73,133</b>	<b>18,749</b>	<b>26,471</b>	<b>1,097</b>	<b>16,007</b>	<b>1,893</b>	<b>31,099</b>
	<b>2019</b>	<b>37,678</b>	<b>1,914</b>	<b>70,276</b>	<b>20,801</b>	<b>26,704</b>	<b>1,029</b>	<b>16,476</b>	<b>1,921</b>	<b>30,358</b>
Albania	2016	*6	..	4	..	84	..	14	..	56
	2017	19	..	40	..	77	..	105	..	103
	2018	9	..	29	..	26	..	58	..	66
	2019	7	..	23	..	105	..	54	..	58
Austria	2016	218	..	961	0	333	..	71	..	26
	2017	262	..	804	0	306	..	59	..	27
	2018	281	..	1,028	0	369	..	71	..	21
	2019	316	..	1,006	0	395	..	67	..	23
Belarus	2016	632	..	..	..	677	..	..	..	806
	2017	617	..	..	..	852	..	..	..	1,028
	2018	697	..	..	..	781	..	..	..	1,245
	2019	713	..	..	..	819	..	..	..	1,021
Belgium	2016	860	..	2,443	..	1,271	..	315	..	3,903
	2017	916	..	2,319	..	395	..	305	..	3,698
	2018	824	..	2,611	..	..	..	400	..	2,488
	2019	685	..	2,769	..	..	..	1,047	..	3,830
Bosnia and Herzegovina	2016	..	..	7	37	152	..	..	..	21
	2017	..	..	7	51	171	..	..	..	20
	2018	..	..	7	40	146	..	..	..	19
	2019	..	..	1	16	4	..	..	..	..
Bulgaria	2016	310	..	366	..	23	..	93	4	9
	2017	331	..	448	..	16	..	98	4	9
	2018	294	..	372	..	84	..	75	3	4
	2019	374	..	487	..	105	..	85	3	2
Croatia	2016	155	..	64	11	1	..	53	..	208
	2017	185	..	52	11	..	..	74	..	115
	2018	187	..	39	11	1	..	58	..	106
	2019	129	..	14	10	..	..	67	..	25
Czechia	2016	101	..	394	84	363	10	62	..	494
	2017	145	..	840	85	551	12	102	..	817
	2018	140	..	930	95	566	11	89	..	669
	2019	148	..	911	92	547	9	99	..	636
Denmark	2016	287	..	..	..	..	..	..	..	..
	2017	306	..	..	..	..	..	..	..	..
	2018	301	..	..	..	..	..	..	..	..
	2019	320	..	..	..	..	..	..	..	..
Finland	2016	591	..	133	308	231	..	128	116	..
	2017	574	..	103	296	139	..	117	130	5
	2018	586	..	70	305	225	..	100	140	38
	2019	632	..	133	299	218	..	109	155	46
France	2016	1,322	9	4,974	603	1,706	73	542	38	917
	2017	1,282	20	5,301	719	2,047	97	485	58	963
	2018	1,167	7	5,387	571	2,056	71	481	85	859
	2019	1,178	9	4,267	555	1,976	63	387	68	821
Germany	2016	3,937	..	7,860	2,367	4,065	122	1,887	1	1,190
	2017	4,051	..	7,635	2,508	4,289	94	1,911	259	1,393
	2018	3,742	..	6,373	2,460	4,083	219	1,715	174	1,238
	2019	3,835	..	6,662	2,282	3,915	306	1,705	414	1,337

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Greece	2016	662	..	1,657	225	748	..	597	..	1,156
	2017	664	..	1,616	249	907	..	483	..	1,462
	2018	839	..	1,795	281	1,142	..	583	..	1,271
	2019	776	..	1,618	251	1,549	..	505	..	1,389
Hungary	2016	173	..	1,008	134	518	35	380	20	625
	2017	174	..	862	133	440	42	309	24	640
	2018	207	..	1,036	135	404	34	330	19	752
	2019	206	..	880	124	407	31	317	16	783
Ireland	2016	72	..	77	..	..	..	..	..	..
	2017	74	..	94	..	..	..	..	..	..
	2018	76	..	35	..	..	..	..	..	..
	2019	62	..	42	..	..	..	..	..	..
Italy	2016	2,559	..	2,436	1,368	2,557	108	834	3	3,936
	2017	2,718	..	6,391	1,554	2,772	145	1,033	4	2,563
	2018	2,790	..	5,108	1,347	2,554	100	759	3	2,907
	2019	2,733	..	4,965	755	2,750	83	769	3	2,379
Lithuania	2016	346	..	..	56	166	..	127	..	95
	2017	352	..	..	66	209	..	119	..	94
	2018	332	..	..	72	242	..	121	..	94
	2019	302	..	..	86	372	..	122	..	86
Netherlands	2016	2,243	..	10,159	16	225	3	403	322	1,831
	2017	2,099	..	10,993	0	216	78	388	121	2,378
	2018	1,946	..	11,572	..	330	174	391	114	2,319
	2019	2,295	..	11,446	561	252	55	443	82	2,591
Norway	2016	420	..	1,111	..	..	..	473	..	..
	2017	482	..	1,236	..	..	..	504	..	..
	2018	478	..	1,281	..	..	..	485	..	..
	2019	426	..	1,329	..	..	..	363	..	..
Poland	2016	663	..	1,810	651	1,427	86	..	130	1,362
	2017	542	..	1,935	452	1,452	76	..	89	1,246
	2018	623	..	2,000	472	1,494	87	..	113	1,164
	2019	702	..	2,020	415	1,485	87	30	107	1,340
Portugal	2016	8	..	1,146	121	164	10	..	24	976
	2017	9	..	1,321	136	196	10	..	16	886
	2018	11	..	1,018	116	132	9	..	16	775
	2019	13	..	1,091	103	171	8	..	8	729
Republic of Moldova	2016	..	..	..	0	..	..	..	..	1
	2017	..	..	..	..	..	..	..	..	3
	2018	..	..	..	0	0	..	..	0	1
	2019	..	..	..	..	0	..	..	..	1
Romania	2016	787	..	184	..	91	..	843	128	96
	2017	783	..	230	..	96	..	909	126	196
	2018	788	..	193	..	102	..	838	132	254
	2019	842	..	181	..	120	..	846	138	247
Russian Federation	2016	15,590	*2,038	25,946	3,720	7,633	178	3,229	1,721	*1,623
	2017	15,318	*1,514	26,485	7,041	6,693	251	3,727	1,705	4,245
	2018	*15,350	*1,920	27,236	11,480	6,912	246	3,829	845	9,267
	2019	*15,400	*1,905	25,783	14,144	7,069	243	3,971	717	6,275
Serbia	2016	65	..	359	12	333	..	13	..	171
	2017	53	..	441	11	360	..	13	..	197
	2018	59	..	449	13	416	..	12	..	188
	2019	62	..	398	14	398	..	12	..	203

Table 23

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Slovakia	2016	549	0	384	..	..	..	53	..	146
	2017	572	..	472	..	..	..	59	..	153
	2018	528	..	397	..	..	..	55	..	127
	2019	494	..	430	..	..	..	38	..	148
Spain	2016	2,366	..	1,194	409	2,471	95	3,782	265	2,575
	2017	2,346	..	1,368	399	2,483	88	3,823	255	2,338
	2018	2,236	..	1,756	415	2,630	90	3,802	243	2,319
	2019	2,113	..	1,438	354	2,373	78	3,604	202	2,474
Sweden	2016	739	..	86	383	961	..	69	..	2,082
	2017	733	..	83	378	870	..	59	..	1,800
	2018	822	..	188	355	733	..	69	..	122
	2019	489	..	293	297	760	..	42	..	1,728
Switzerland	2016	123	..	0	..	..	..	0	..	33
	2017	121	..	1	..	..	..	..	..	37
	2018	131	..	16	..	..	..	..	..	45
	2019	119	..	19	..	..	..	..	..	30
Ukraine	2016	26	..	..	90	27	..	..	..	430
	2017	36	..	..	112	37	..	..	..	599
	2018	35	..	..	147	170	..	..	..	1,282
	2019	41	..	..	150	23	..	..	..	432
United Kingdom	2016	2,444	..	2,306	350	968	14	1,882	95	1,097
	2017	2,424	..	2,280	443	817	39	1,910	7	1,018
	2018	2,368	..	2,209	436	875	55	1,685	7	1,459
	2019	2,266	..	2,072	293	892	68	1,793	8	1,726
<b>Oceania</b>	<b>2016</b>	<b>1,009</b>	..	<b>850</b>	<b>0</b>	<b>316</b>	..	<b>424</b>	<b>76</b>	<b>230</b>
	<b>2017</b>	<b>1,021</b>	..	<b>838</b>	..	<b>202</b>	..	<b>374</b>	<b>66</b>	<b>167</b>
	<b>2018</b>	<b>1,058</b>	..	<b>743</b>	..	<b>164</b>	..	<b>321</b>	<b>72</b>	<b>88</b>
	<b>2019</b>	<b>1,065</b>	..	<b>765</b>	..	<b>219</b>	..	<b>238</b>	<b>82</b>	<b>2,293</b>
Australia	2016	762	..	341	0	172	..	424	76	141
	2017	757	..	318	..	124	..	374	66	79
	2018	808	..	310	..	98	..	321	72	11
	2019	807	..	310	..	93	..	238	82	1,877
New Zealand	2016	247	..	..	..	144	..	..	..	75
	2017	264	..	..	..	78	..	..	..	75
	2018	250	..	..	..	66	..	..	..	64
	2019	258	..	..	..	125	..	..	..	402
Papua New Guinea	2016	..	..	509	..	..	..	..	..	14
	2017	..	..	520	..	..	..	..	..	13
	2018	..	..	433	..	..	..	..	..	14
	2019	..	..	*454	..	..	..	..	..	*14







### Production of oil products from refineries – by type

Thousand metric tons

#### Table Notes

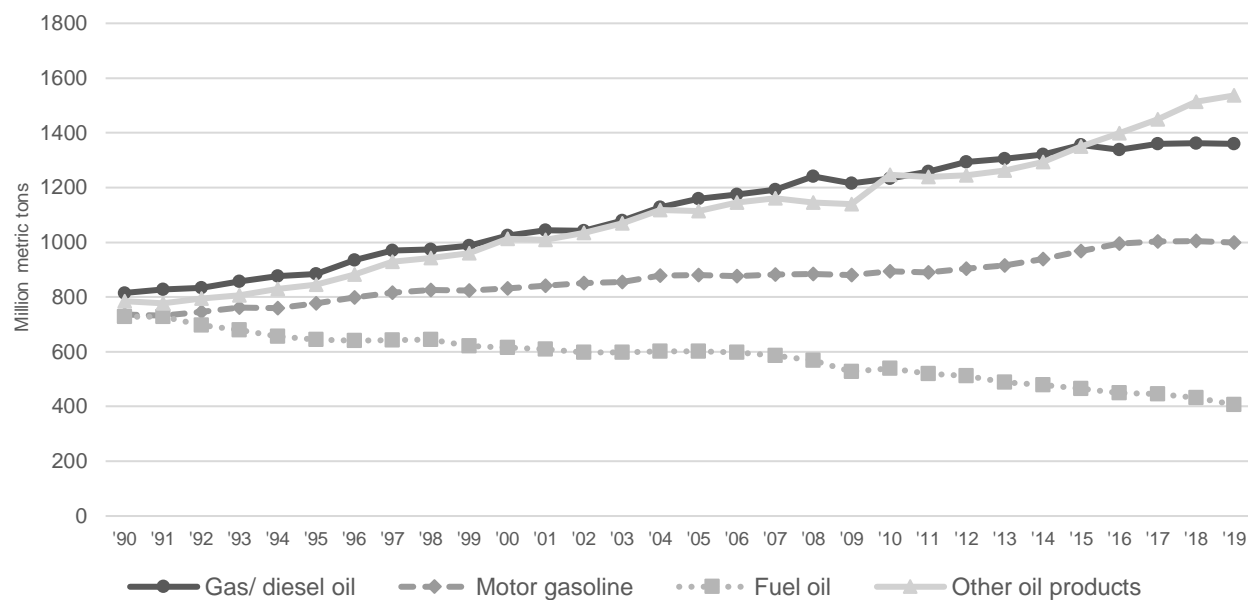
**Production** comprises all refinery output of all oil products.

The **Jet fuels** column comprises aviation gasoline, gasoline-type jet fuel and kerosene-type jet fuel.

The **Other products** column includes bitumen, ethane, feedstocks, lubricants, petroleum coke, paraffin waxes, white spirit, and other oil products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 64: Production of selected oil products from refineries, 1990-2019



























## Production, trade and supply of oil products

Thousand metric tons

### Table Notes

**Production** refers to the production from refineries and plants of all oil products, together with quantities from other sources which include any blended biofuels.

**Imports, Exports, Bunkers and Changes in stocks** refer to all oil products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 65: Production of oil products by region, 1990-2019

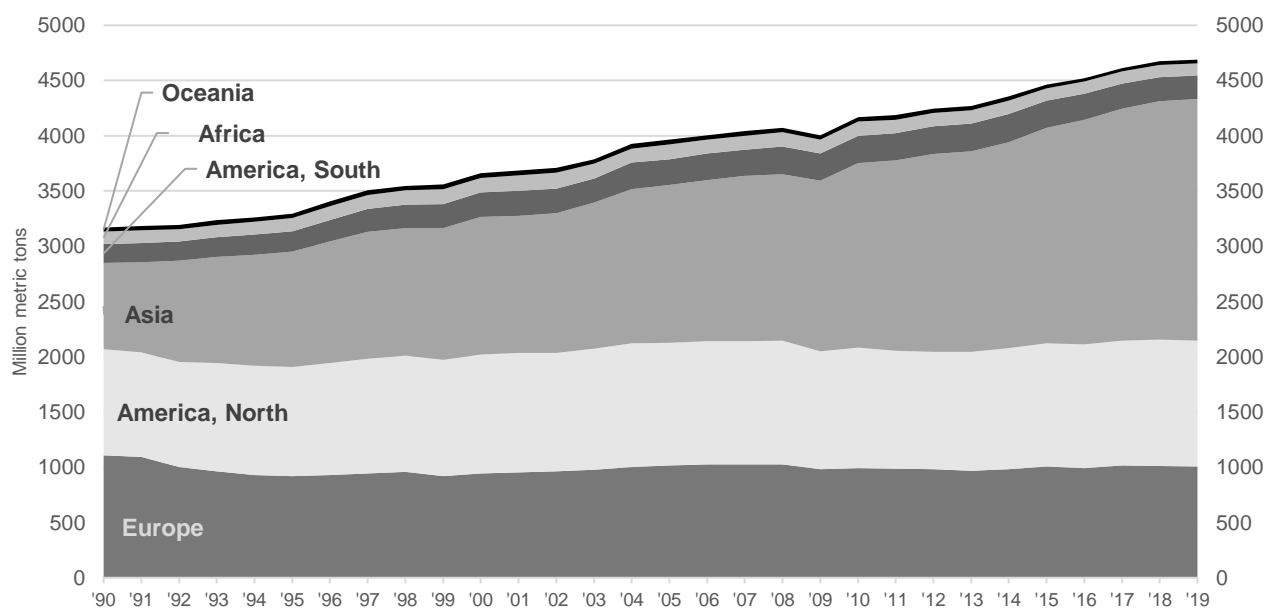


Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
<b>World</b>	<b>2016</b>	<b>4,522,805</b>	<b>1,381,107</b>	<b>1,446,882</b>	<b>383,608</b>	<b>1,639</b>	<b>4,071,783</b>	<b>546</b>
	<b>2017</b>	<b>4,611,514</b>	<b>1,432,731</b>	<b>1,491,139</b>	<b>402,987</b>	<b>-15,281</b>	<b>4,165,399</b>	<b>552</b>
	<b>2018</b>	<b>4,673,708</b>	<b>1,438,204</b>	<b>1,508,242</b>	<b>403,957</b>	<b>2,855</b>	<b>4,196,858</b>	<b>550</b>
	<b>2019</b>	<b>4,689,320</b>	<b>1,395,276</b>	<b>1,459,945</b>	<b>401,940</b>	<b>7,211</b>	<b>4,215,500</b>	<b>547</b>
<b>Africa</b>	<b>2016</b>	<b>111,595</b>	<b>114,691</b>	<b>38,201</b>	<b>11,388</b>	<b>-410</b>	<b>177,107</b>	<b>146</b>
	<b>2017</b>	<b>107,445</b>	<b>120,303</b>	<b>38,229</b>	<b>11,890</b>	<b>-979</b>	<b>178,608</b>	<b>144</b>
	<b>2018</b>	<b>110,433</b>	<b>110,850</b>	<b>37,718</b>	<b>13,679</b>	<b>-3,326</b>	<b>173,212</b>	<b>136</b>
	<b>2019</b>	<b>109,580</b>	<b>120,296</b>	<b>34,382</b>	<b>12,945</b>	<b>-1,529</b>	<b>184,078</b>	<b>141</b>
Algeria	2016	37,854	3,573	23,346	*616	51	17,414	429
	2017	36,842	3,452	22,637	*591	-135	17,201	416
	2018	38,309	840	21,052	*648	504	16,945	401
	2019	36,664	1,884	20,079	499	-11	17,981	418
Angola	2016	2,866	3,546	1,303	654	*-808	5,262	182
	2017	3,488	3,476	1,944	688	*-661	4,993	167
	2018	2,675	3,351	1,747	546	*-1,272	5,004	162
	2019	3,571	3,136	1,131	565	*132	4,879	153
Benin	2016	..	1,945	..	33	-66	1,978	182
	2017	..	2,054	..	31	-35	2,058	184
	2018	..	2,301	..	30	-12	2,283	199
	2019	..	2,114	..	22	11	2,082	176
Botswana	2016	..	935	..	11	..	924	428
	2017	..	951	..	11	..	940	426
	2018	..	975	..	12	..	963	427
	2019	..	988	..	12	..	976	424
Burkina Faso	2016	..	944	..	22	-142	1,064	57
	2017	..	1,183	..	27	*-89	1,245	65
	2018	..	1,495	..	30	*101	1,365	69
	2019	..	1,334	..	30	*-145	1,448	71
Burundi	2016	..	145	..	2	0	144	14
	2017	..	*178	..	4	0	*174	*16
	2018	..	220	..	5	0	216	19
	2019	..	*223	..	5	0	*218	*19
Cabo Verde	2016	..	*297	..	*120	..	*177	*334
	2017	..	*319	..	*128	..	*191	*355
	2018	..	*326	..	*133	..	*193	*355
	2019	..	*336	..	*135	..	*201	*365
Cameroon	2016	1,596	741	521	21	-6	1,801	75
	2017	1,313	889	386	17	..	1,799	73
	2018	1,191	945	334	16	..	1,786	71
	2019	616	1,308	189	17	..	1,717	66
Central African Rep.	2016	..	*81	..	15	..	*66	*15
	2017	..	*87	..	16	..	*71	*15
	2018	..	*90	..	17	..	*73	*16
	2019	..	*92	..	*17	..	*75	*16
Chad	2016	*669	*162	*372	*24	..	*436	*30
	2017	*670	*155	*370	26	0	*429	*29
	2018	*671	*171	*367	28	..	*447	*29
	2019	*678	*173	*376	25	..	*451	*28
Comoros	2016	..	*70	..	*1	..	*69	*86
	2017	..	*89	..	*1	..	*88	*108
	2018	..	*97	..	*2	..	*95	*114
	2019	..	*104	..	*2	..	*102	*120

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2016	649	381	325	41	0	664	133
	2017	716	198	343	31	..	541	106
	2018	725	202	348	32	..	548	104
	2019	735	204	352	32	..	555	103
Côte d'Ivoire	2016	3,192	1,232	1,392	238	0	2,793	117
	2017	*3,070	1,332	*1,097	*241	-17	*3,081	*126
	2018	3,371	1,244	1,491	231	..	2,893	115
	2019	3,717	1,072	1,741	258	..	2,791	109
Dem. Rep. of the Congo	2016	..	743	..	115	..	628	8
	2017	..	815	..	117	..	697	9
	2018	..	811	..	134	..	678	8
	2019	..	827	..	121	..	706	8
Djibouti	2016	..	231	..	100	*15	116	125
	2017	..	220	..	*100	*6	115	122
	2018	..	*219	..	*100	*10	*109	*113
	2019	..	*219	..	*100	*10	*109	*112
Egypt	2016	26,364	15,475	1,529	477	-25	39,858	422
	2017	25,118	14,297	1,428	631	35	37,321	387
	2018	27,382	12,572	3,277	713	0	35,964	365
	2019	29,503	10,362	2,775	857	..	36,233	361
Equatorial Guinea	2016	605	*292	604	*47	*-23	269	221
	2017	660	*305	656	49	-17	278	220
	2018	587	*281	574	44	*-10	260	199
	2019	512	*295	495	42	*-5	275	203
Eritrea	2016	..	199	..	10	..	189	56
	2017	..	215	..	8	..	207	61
	2018	..	253	..	14	..	239	69
	2019	..	256	..	9	..	247	71
Eswatini	2016	..	264	..	1	..	263	236
	2017	..	272	..	2	..	271	241
	2018	..	286	..	2	..	284	250
	2019	..	*303	..	2	..	*301	*262
Ethiopia	2016	..	3,848	..	588	-8	3,268	32
	2017	..	4,108	..	682	-101	3,527	33
	2018	..	4,407	..	728	-30	3,709	34
	2019	..	5,128	..	730	..	4,397	39
Gabon	2016	849	515	269	249	..	846	421
	2017	793	*381	245	161	..	768	372
	2018	726	341	213	164	..	689	325
	2019	624	*437	196	169	..	697	321
Gambia	2016	..	216	*2	*21	..	192	90
	2017	..	219	*2	*22	..	195	88
	2018	..	215	*2	*19	..	193	85
	2019	..	*218	*2	*20	..	*196	*84
Ghana	2016	739	3,322	537	133	0	3,391	119
	2017	133	3,539	468	232	-23	2,996	103
	2018	390	3,680	159	185	0	3,726	125
	2019	690	3,545	292	219	-12	3,735	123
Guinea	2016	..	954	..	*26	..	929	79
	2017	..	1,145	..	*32	..	1,114	92
	2018	..	1,291	..	*30	..	1,261	102
	2019	..	1,549	..	*42	..	1,508	118



Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2016	..	*136	..	*13	..	*124	*70
	2017	..	*137	..	*13	..	*125	*68
	2018	..	*142	..	*13	..	*129	*69
	2019	..	*146	..	*13	..	*133	*69
Kenya	2016	0	6,830	1,682	705	0	4,444	91
	2017	0	6,638	1,451	770	0	4,417	88
	2018	..	5,378	26	723	..	4,629	90
	2019	..	5,762	23	705	..	5,034	96
Lesotho	2016	3	215	..	0	..	217	105
	2017	3	216	..	0	..	220	105
	2018	*3	227	..	0	..	230	109
	2019	*3	237	..	0	..	241	113
Liberia	2016	..	*433	..	*15	..	*418	*91
	2017	..	*381	..	*11	..	*371	*79
	2018	..	*329	..	*10	..	*319	*66
	2019	..	*334	..	*10	..	*324	*66
Libya	2016	4,367	5,838	1,196	138	..	8,871	1,366
	2017	5,176	5,663	1,538	276	..	9,025	1,371
	2018	6,040	5,495	1,941	327	..	9,267	1,388
	2019	5,086	5,847	1,544	340	..	9,049	1,335
Madagascar	2016	..	886	..	43	59	784	31
	2017	..	920	..	49	-35	906	35
	2018	..	833	0	47	-91	876	33
	2019	..	1,063	0	50	38	974	36
Malawi	2016	..	317	..	*6	..	311	18
	2017	..	363	..	*7	..	356	20
	2018	..	423	..	*8	..	415	23
	2019	..	433	..	*4	..	430	23
Mali	2016	..	*1,104	10	*58	*30	*1,005	*56
	2017	..	*1,156	*10	*60	*14	*1,072	*58
	2018	..	*1,191	*10	*61	*10	*1,110	*58
	2019	..	*1,211	*10	*62	*10	*1,129	*57
Mauritania	2016	..	860	..	20	..	839	202
	2017	..	1,187	..	20	*54	1,113	260
	2018	..	1,652	..	22	*384	1,245	283
	2019	..	1,758	..	20	*447	1,291	285
Mauritius	2016	..	1,468	*91	479	26	873	691
	2017	..	1,649	..	624	108	917	725
	2018	..	1,663	..	738	-14	940	741
	2019	..	1,868	62	808	6	992	781
Morocco	2016	0	12,524	12	779	-85	11,818	331
	2017	..	13,394	..	815	67	12,512	346
	2018	..	13,012	..	871	14	12,126	331
	2019	..	12,906	..	912	-412	12,406	335
Mozambique	2016	..	2,152	..	*46	*63	2,043	73
	2017	..	1,654	..	15	..	1,639	57
	2018	..	1,678	..	10	..	1,668	57
	2019	..	1,652	..	10	..	1,643	54
Namibia	2016	..	1,284	4	38	..	1,242	527
	2017	..	1,284	4	37	..	1,243	517
	2018	..	1,257	4	37	..	1,216	497
	2019	..	1,220	4	36	..	1,180	473

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Niger	2016	596	71	296	45	*-92	418	20
	2017	814	102	*362	*57	*21	474	22
	2018	763	51	*337	*45	*36	397	18
	2019	634	56	*115	*49	..	526	23
Nigeria	2016	3,351	18,786	251	737	664	20,485	110
	2017	4,379	17,451	853	820	-117	20,274	106
	2018	2,389	12,651	246	982	-3,002	16,814	86
	2019	742	21,383	35	803	-1,496	22,784	113
Rwanda	2016	..	314	..	*22	*8	284	24
	2017	..	341	..	*30	*-3	314	26
	2018	..	370	..	*30	*-3	343	28
	2019	..	536	..	*24	..	511	40
Sao Tome and Principe	2016	..	*52	..	*11	..	*41	*200
	2017	..	*54	..	*11	..	*43	*205
	2018	..	*55	..	*12	..	*43	*206
	2019	..	*56	..	*12	..	*44	*206
Senegal	2016	1,124	2,119	857	351	-66	2,101	140
	2017	1,202	1,633	263	338	-15	2,249	146
	2018	981	2,101	*433	332	*120	2,197	139
	2019	886	2,605	*670	385	-25	2,460	151
Seychelles	2016	..	395	..	*194	*20	181	1,895
	2017	..	412	..	214	*10	188	1,955
	2018	..	366	..	*169	0	196	2,021
	2019	..	348	..	*154	0	193	1,980
Sierra Leone	2016	..	383	..	4	..	379	52
	2017	..	362	..	13	..	349	47
	2018	..	348	..	5	..	343	45
	2019	..	396	..	4	..	392	50
Somalia	2016	..	*279	..	71	..	*208	*15
	2017	..	*279	..	71	..	*208	*14
	2018	..	*279	..	71	..	*208	*14
	2019	..	*279	..	71	..	*208	*13
South Africa	2016	20,809	5,585	2,853	3,224	..	20,317	361
	2017	17,918	11,436	3,619	2,903	..	22,832	400
	2018	19,125	10,511	4,516	4,396	..	20,723	359
	2019	20,633	9,480	4,108	3,599	..	22,406	383
South Sudan	2016	..	553	..	68	..	485	45
	2017	..	477	..	74	..	404	37
	2018	..	493	..	74	..	419	38
	2019	..	538	..	83	..	455	41
St. Helena and Depend.	2016	..	4	..	..	..	4	750
	2017	..	3	..	..	..	3	509
	2018	..	4	..	..	..	4	659
	2019	..	4	..	..	..	4	737
Sudan	2016	4,165	1,516	147	*182	0	5,352	134
	2017	3,609	2,447	122	*161	..	5,773	141
	2018	3,320	2,649	103	*146	..	5,721	137
	2019	*3,362	*2,680	*104	*148	..	*5,790	*135
Togo	2016	..	522	..	53	-18	487	65
	2017	..	508	..	73	-20	455	59
	2018	..	480	..	62	-17	435	55
	2019	..	447	..	65	..	382	47

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tunisia	2016	1,332	3,922	600	217	-7	4,444	393
	2017	971	4,186	430	258	-25	4,494	393
	2018	1,192	4,247	531	294	-54	4,667	404
	2019	265	4,521	76	310	-78	4,478	383
Uganda	2016	..	1,551	..	98	..	1,454	37
	2017	..	1,741	..	102	..	1,639	40
	2018	..	1,849	..	108	..	1,740	41
	2019	..	1,895	..	111	..	1,784	40
United Rep. of Tanzania	2016	..	2,465	..	142	..	2,323	44
	2017	..	2,417	..	146	..	2,271	42
	2018	..	2,461	..	136	..	2,325	41
	2019	..	2,408	..	144	..	2,264	39
Zambia	2016	465	934	3	27	..	1,368	84
	2017	569	809	2	26	..	1,349	80
	2018	595	636	6	29	..	1,196	69
	2019	658	852	3	29	..	1,478	83
Zimbabwe	2016	..	1,083	..	39	..	1,044	74
	2017	..	1,123	..	49	..	1,075	75
	2018	..	1,405	..	60	..	1,345	93
	2019	..	1,266	..	51	..	1,215	83
<b>America, North</b>	<b>2016</b>	<b>1,119,973</b>	<b>195,469</b>	<b>243,404</b>	<b>58,805</b>	<b>-746</b>	<b>1,013,979</b>	<b>1,771</b>
	<b>2017</b>	<b>1,130,406</b>	<b>203,321</b>	<b>262,106</b>	<b>63,206</b>	<b>-3,673</b>	<b>1,012,088</b>	<b>1,753</b>
	<b>2018</b>	<b>1,146,332</b>	<b>211,510</b>	<b>270,379</b>	<b>60,564</b>	<b>-804</b>	<b>1,027,703</b>	<b>1,765</b>
	<b>2019</b>	<b>1,135,774</b>	<b>221,436</b>	<b>258,349</b>	<b>63,810</b>	<b>129</b>	<b>1,034,921</b>	<b>1,764</b>
Anguilla	2016	..	*50	..	..	..	*50	*3,471
	2017	..	*46	..	..	..	*46	*3,146
	2018	..	*47	..	..	..	*47	*3,196
	2019	..	*50	..	..	..	*50	*3,342
Antigua and Barbuda	2016	..	*237	*4	*69	..	*164	*1,738
	2017	..	*237	*4	*69	..	*164	*1,722
	2018	..	*242	*4	*70	..	*168	*1,740
	2019	..	*242	*4	*70	..	*168	*1,725
Aruba	2016	..	*384	..	*96	..	*288	*2,747
	2017	..	*390	..	*99	..	*291	*2,757
	2018	..	385	..	*100	..	284	2,687
	2019	..	*399	..	*101	..	*298	*2,806
Bahamas	2016	..	510	0	*51	-193	652	1,725
	2017	..	647	*1	*100	*-144	690	1,809
	2018	..	867	..	*99	*-117	886	2,297
	2019	..	974	..	*95	*46	833	2,138
Barbados	2016	..	527	..	*121	22	384	1,344
	2017	..	492	..	*133	13	346	1,209
	2018	..	477	..	*110	-5	372	1,297
	2019	..	478	..	*149	-10	339	1,182
Belize	2016	1	206	..	15	..	192	520
	2017	1	202	..	15	..	188	501
	2018	1	200	..	14	..	187	487
	2019	1	249	..	25	..	225	578
Bermuda	2016	..	216	..	*24	-10	202	3,191
	2017	..	248	..	*26	*15	207	3,287
	2018	..	256	..	*27	0	229	3,656
	2019	..	215	..	*25	0	190	3,047

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bonaire, St Eustatius, Saba	2016	..	*94	..	*53	*7	*35	*1,394
	2017	..	*102	..	*54	*11	*37	*1,447
	2018	..	*84	..	*53	*-4	*35	*1,361
	2019	..	*87	..	*53	*-5	*38	*1,462
British Virgin Islands	2016	..	*69	..	..	..	*69	*2,334
	2017	..	*55	..	..	..	*55	*1,864
	2018	..	*52	..	..	..	*52	*1,745
	2019	..	*55	..	..	..	*55	*1,818
Canada	2016	91,692	13,578	21,044	928	-674	83,972	2,308
	2017	95,934	11,700	23,589	983	334	82,728	2,252
	2018	92,976	13,613	21,777	1,301	303	83,208	2,244
	2019	102,638	13,273	22,231	1,384	-1,380	93,676	2,504
Cayman Islands	2016	..	217	..	36	..	181	2,898
	2017	..	229	..	38	..	191	3,015
	2018	..	238	..	37	..	202	3,140
	2019	..	261	..	34	..	227	3,502
Costa Rica	2016	..	2,633	0	189	-53	2,497	510
	2017	..	2,812	0	187	69	2,556	516
	2018	..	2,689	0	209	-87	2,566	513
	2019	..	2,782	0	223	56	2,502	496
Cuba	2016	2,205	3,221	*424	820	*-28	4,210	371
	2017	2,632	3,423	*701	*628	..	4,726	417
	2018	2,751	3,030	*890	*509	..	4,382	387
	2019	2,566	3,273	*873	*470	..	4,497	397
Curaçao	2016	8,267	2,882	7,464	1,659	..	2,026	12,580
	2017	4,331	2,655	3,833	1,661	..	1,492	9,209
	2018	3,087	2,561	2,820	1,657	..	1,171	7,196
	2019	0	2,406	0	1,667	..	739	4,523
Dominica	2016	..	*59	..	*2	*-1	*58	*820
	2017	..	*56	..	*2	*2	*53	*743
	2018	..	*56	..	*2	*1	*53	*742
	2019	..	*59	..	*2	*2	*56	*779
Dominican Republic	2016	1,097	5,462	..	496	-13	6,076	584
	2017	899	5,175	..	539	30	5,505	524
	2018	1,208	5,387	..	544	-20	6,072	571
	2019	1,156	6,084	..	457	-20	6,802	633
El Salvador	2016	0	2,249	25	166	..	2,058	324
	2017	..	2,040	25	165	..	1,850	290
	2018	..	2,154	15	174	..	1,965	306
	2019	..	2,488	7	183	..	2,298	356
Greenland	2016	..	183	..	17	1	165	2,924
	2017	..	196	..	19	7	170	3,010
	2018	..	*164	..	*19	0	*145	*2,570
	2019	..	*168	..	*19	..	*149	*2,636
Grenada	2016	..	99	..	7	4	87	790
	2017	..	102	..	7	5	90	815
	2018	..	107	..	8	-2	101	905
	2019	..	119	..	9	1	109	972
Guatemala	2016	56	4,367	402	452	37	3,533	213
	2017	85	4,644	301	509	0	3,919	232
	2018	147	4,727	255	528	-86	4,177	242
	2019	203	5,270	247	524	115	4,586	261

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Haiti	2016	..	982	..	22	..	960	89
	2017	..	1,018	..	22	..	996	91
	2018	..	1,114	..	22	..	1,091	98
	2019	..	1,003	..	22	..	981	87
Honduras	2016	..	2,862	362	..	-368	2,867	309
	2017	..	3,431	0	..	389	3,042	323
	2018	..	3,462	428	..	90	2,943	307
	2019	..	3,843	444	..	-22	3,420	351
Jamaica	2016	1,094	1,725	264	232	-40	2,363	813
	2017	1,048	1,755	304	223	49	2,227	763
	2018	1,032	1,893	289	254	-21	2,403	819
	2019	1,240	1,480	312	272	-4	2,140	726
Mexico	2016	57,093	41,105	9,405	4,372	-20	84,441	685
	2017	50,322	49,222	7,997	4,518	-50	87,079	698
	2018	40,747	53,795	7,304	4,731	320	82,187	651
	2019	39,104	52,737	5,929	4,686	-1,491	82,717	648
Montserrat	2016	..	11	..	*1	0	10	1,920
	2017	..	10	..	*1	0	8	1,694
	2018	..	11	..	*1	..	10	1,925
	2019	..	9	..	*1	..	8	1,608
Nicaragua	2016	659	1,043	21	22	-48	1,707	271
	2017	692	1,054	28	25	-13	1,706	267
	2018	639	1,026	29	16	15	1,605	248
	2019	518	1,223	40	16	64	1,622	248
Panama	2016	..	6,951	0	4,214	-153	2,891	716
	2017	..	8,049	0	4,961	-253	3,341	814
	2018	..	7,763	0	4,855	-34	2,943	704
	2019	..	8,398	1	5,506	-14	2,904	684
Sint Maarten (Dutch part)	2016	..	*532	..	*250	..	*282	*6,910
	2017	..	*507	..	*240	..	*267	*6,442
	2018	..	*491	..	*232	..	*259	*6,183
	2019	..	*495	..	*234	..	*261	*6,148
St. Kitts-Nevis	2016	..	*84	..	*5	..	*79	*1,523
	2017	..	*84	..	*5	..	*79	*1,523
	2018	..	*85	..	*5	..	*80	*1,530
	2019	..	*87	..	*5	..	*82	*1,544
St. Lucia	2016	..	*196	..	36	..	*160	*891
	2017	..	*207	..	38	..	*168	*931
	2018	..	*206	..	38	..	*168	*924
	2019	..	*209	..	*38	..	*170	*932
St. Pierre-Miquelon	2016	..	*28	..	*6	..	*21	*3,578
	2017	..	*28	..	*6	..	*21	*3,619
	2018	..	*25	..	*5	..	*20	*3,353
	2019	..	*27	..	*5	..	*21	*3,659
St. Vincent-Grenadines	2016	..	84	..	0	*4	80	734
	2017	..	60	..	0	*-11	70	641
	2018	..	85	..	0	*5	80	724
	2019	..	65	..	0	*-9	74	672
Trinidad and Tobago	2016	8,203	0	5,762	939	304	1,198	870
	2017	7,340	2	5,138	743	210	1,252	904
	2018	5,874	..	4,153	601	131	988	711
	2019	843	2,072	1,476	231	-27	1,235	885

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Turks and Caicos Islands	2016	..	*131	..	*22	..	*108	*2,968
	2017	..	*141	..	*24	..	*117	*3,152
	2018	..	*144	..	*25	..	*119	*3,170
	2019	..	*145	..	*25	..	*121	*3,158
United States	2016	949,606	102,494	198,227	43,485	476	809,912	2,507
	2017	967,122	102,303	220,185	47,165	-4,333	806,409	2,481
	2018	997,871	104,075	232,415	44,320	-1,294	826,505	2,527
	2019	987,504	110,713	226,786	47,276	2,826	821,329	2,496
<b>America, South</b>	<b>2016</b>	<b>237,295</b>	<b>64,405</b>	<b>36,031</b>	<b>10,377</b>	<b>-89</b>	<b>255,379</b>	<b>614</b>
	<b>2017</b>	<b>230,208</b>	<b>70,361</b>	<b>35,985</b>	<b>10,252</b>	<b>-533</b>	<b>254,866</b>	<b>607</b>
	<b>2018</b>	<b>221,997</b>	<b>68,474</b>	<b>38,729</b>	<b>10,733</b>	<b>-763</b>	<b>241,772</b>	<b>571</b>
	<b>2019</b>	<b>215,050</b>	<b>67,050</b>	<b>31,152</b>	<b>10,615</b>	<b>-25</b>	<b>240,357</b>	<b>563</b>
Argentina	2016	30,659	4,025	1,523	1,622	26	31,513	724
	2017	30,390	3,709	1,831	1,784	105	30,379	691
	2018	28,811	3,917	3,198	1,618	-50	27,962	630
	2019	29,178	2,987	3,586	1,339	-239	27,479	614
Bolivia (Plur. State of)	2016	3,007	992	499	81	-219	3,638	330
	2017	2,837	1,209	452	79	-320	3,836	343
	2018	2,718	1,408	288	77	-135	3,896	343
	2019	2,476	1,775	215	72	67	3,897	338
Brazil	2016	112,325	22,486	5,593	5,677	12	123,529	599
	2017	109,396	28,215	5,908	5,578	298	125,827	605
	2018	107,133	25,559	8,545	5,360	-420	119,207	569
	2019	107,105	28,073	8,560	5,762	545	120,311	570
Chile	2016	9,429	8,097	463	683	93	16,287	894
	2017	9,648	7,826	521	721	146	16,087	871
	2018	9,727	8,130	811	772	52	16,222	866
	2019	10,245	7,542	536	823	217	16,210	855
Colombia	2016	16,590	7,674	4,509	..	..	19,755	410
	2017	18,701	5,322	5,432	..	..	18,591	380
	2018	19,742	4,447	5,441	..	..	18,748	378
	2019	19,891	5,341	5,430	..	..	19,801	393
Ecuador	2016	7,929	5,609	2,519	535	-2	10,487	636
	2017	8,004	5,792	3,110	620	-56	10,122	603
	2018	8,546	6,142	3,138	977	20	10,553	618
	2019	7,387	6,707	2,996	832	29	10,236	589
Falkland Is. (Malvinas)	2016	..	11	..	..	..	11	3,692
	2017	..	10	..	..	..	10	3,409
	2018	..	11	..	..	..	11	3,438
	2019	..	12	..	..	..	12	3,428
Guyana	2016	..	736	..	16	2	718	931
	2017	..	721	..	18	-6	709	915
	2018	..	778	..	17	-4	765	982
	2019	..	874	5	17	-9	861	1,100
Paraguay	2016	216	2,382	..	45	76	2,476	365
	2017	223	2,494	..	60	-119	2,776	404
	2018	244	2,787	..	72	20	2,939	423
	2019	287	2,679	..	71	2	2,893	411
Peru	2016	12,327	4,749	5,026	950	-51	11,150	361
	2017	12,913	5,554	6,166	678	-529	12,151	386
	2018	11,823	5,491	4,576	1,151	-245	11,832	370
	2019	11,372	5,129	3,597	1,116	-531	12,318	379

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Suriname	2016	542	470	459	93	..	460	815
	2017	685	305	362	84	..	545	955
	2018	671	212	356	*78	..	449	779
	2019	637	319	191	*77	..	688	1,183
Uruguay	2016	2,103	234	0	230	-26	2,133	623
	2017	658	1,523	1	201	-52	2,029	590
	2018	2,168	202	1	248	-1	2,122	615
	2019	2,096	182	7	254	-107	2,124	614
Venezuela (Bolivar. Rep.)	2016	42,168	6,939	15,440	445	0	33,222	1,113
	2017	36,755	7,681	12,202	430	0	31,804	1,082
	2018	30,414	9,391	12,375	364	..	27,066	937
	2019	24,376	5,432	6,027	252	..	23,529	825
<b>Asia</b>	<b>2016</b>	<b>2,033,083</b>	<b>558,873</b>	<b>599,192</b>	<b>178,876</b>	<b>420</b>	<b>1,813,468</b>	<b>405</b>
	<b>2017</b>	<b>2,098,258</b>	<b>589,797</b>	<b>621,355</b>	<b>187,091</b>	<b>-2,906</b>	<b>1,882,515</b>	<b>417</b>
	<b>2018</b>	<b>2,153,461</b>	<b>597,884</b>	<b>640,052</b>	<b>189,899</b>	<b>9,714</b>	<b>1,911,681</b>	<b>419</b>
	<b>2019</b>	<b>2,188,261</b>	<b>540,837</b>	<b>602,731</b>	<b>193,393</b>	<b>3,859</b>	<b>1,929,115</b>	<b>419</b>
Afghanistan	2016	*106	1,961	..	*22	*-4	2,049	58
	2017	*112	1,959	..	*61	-95	2,105	58
	2018	*176	2,112	..	*54	*-41	2,275	61
	2019	*112	2,426	..	*10	*175	2,353	62
Armenia	2016	..	340	0	44	7	289	98
	2017	..	384	0	54	13	316	107
	2018	..	386	0	62	14	310	105
	2019	..	487	1	69	31	386	131
Azerbaijan	2016	5,830	329	1,734	223	-139	4,341	446
	2017	5,591	465	1,174	203	50	4,629	470
	2018	5,995	320	1,324	152	171	4,669	469
	2019	6,077	280	1,180	344	38	4,796	477
Bahrain	2016	13,058	*552	11,182	435	139	1,854	1,300
	2017	13,303	*604	11,899	447	-380	1,941	1,299
	2018	13,227	*612	11,540	483	-184	2,000	1,274
	2019	13,386	*626	11,883	508	-346	1,967	1,199
Bangladesh	2016	1,336	3,970	100	462	-96	4,840	31
	2017	1,576	4,664	40	499	..	5,701	36
	2018	1,403	4,575	2	529	-831	6,277	39
	2019	1,593	4,604	2	574	..	5,620	34
Bhutan	2016	..	173	..	*3	..	171	232
	2017	..	190	..	*3	..	186	250
	2018	..	218	..	*4	..	214	283
	2019	..	210	..	*4	..	206	270
Brunei Darussalam	2016	322	373	0	113	-11	593	1,413
	2017	249	440	0	71	11	607	1,431
	2018	338	354	0	81	-5	616	1,436
	2019	1,348	690	835	108	223	871	2,011
Cambodia	2016	..	2,198	..	72	..	2,126	135
	2017	..	2,266	..	103	..	2,163	135
	2018	..	2,509	..	136	..	2,373	146
	2019	..	2,887	..	169	..	2,718	165
China	2016	637,212	53,843	53,042	18,026	-650	620,637	439
	2017	675,125	61,271	56,633	19,452	-1,874	662,186	466
	2018	711,792	67,525	63,519	20,960	7,336	687,501	482
	2019	764,010	64,029	71,704	21,090	5,108	730,135	509

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
China, Hong Kong SAR	2016	..	20,301	371	15,384	928	3,618	499
	2017	..	21,375	293	17,578	-397	3,900	534
	2018	..	21,605	224	17,869	-281	3,792	514
	2019	..	20,363	290	15,982	274	3,816	513
China, Macao SAR	2016	..	654	..	73	2	579	945
	2017	..	605	..	66	13	526	845
	2018	..	408	..	64	-8	352	557
	2019	..	348	..	44	-12	316	493
Cyprus	2016	..	2,615	16	551	27	2,021	1,727
	2017	..	2,644	0	553	33	2,058	1,744
	2018	..	2,594	..	580	-22	2,036	1,712
	2019	..	2,592	..	574	0	2,017	1,683
Georgia	2016	25	1,496	119	71	-28	1,359	338
	2017	24	1,440	*170	95	-11	1,210	302
	2018	22	1,451	105	104	25	1,240	310
	2019	37	1,424	24	103	-22	1,356	339
India	2016	255,853	35,336	65,483	*6,405	*57	219,244	166
	2017	264,330	49,726	74,501	*5,370	*10	234,175	175
	2018	277,047	41,702	71,763	*5,814	*98	241,074	178
	2019	266,575	43,789	68,920	*5,704	71	235,669	172
Indonesia	2016	39,203	27,473	1,252	1,104	*-716	65,036	249
	2017	40,085	31,571	1,157	1,294	*-644	69,849	264
	2018	40,030	30,990	1,168	1,232	156	68,463	256
	2019	43,494	28,279	1,155	1,135	152	69,332	256
Iran (Islamic Rep. of)	2016	99,237	2,584	26,469	2,749	..	72,603	913
	2017	100,213	3,536	24,140	2,119	0	77,490	961
	2018	101,492	4,781	24,309	2,225	..	79,739	975
	2019	100,941	4,140	25,989	2,274	..	76,819	926
Iraq	2016	21,657	16,424	330	943	1	36,807	1,005
	2017	25,483	16,194	3,658	925	-29	37,123	989
	2018	28,811	13,771	1,304	910	..	40,368	1,050
	2019	31,524	4,863	5,237	942	..	30,208	768
Israel	2016	14,174	5,028	5,687	1,067	-75	12,523	1,544
	2017	14,088	4,805	5,745	1,262	2	11,884	1,442
	2018	14,782	4,550	5,952	1,397	-8	11,991	1,431
	2019	15,268	4,007	6,127	1,464	29	11,655	1,368
Japan	2016	168,068	39,707	17,973	10,808	-223	179,217	1,403
	2017	162,278	43,418	17,136	10,825	-175	177,910	1,395
	2018	156,244	42,463	17,172	11,241	80	170,214	1,338
	2019	152,256	39,862	18,520	10,276	692	162,629	1,282
Jordan	2016	2,861	2,333	..	174	16	5,004	524
	2017	2,671	2,689	..	140	129	5,090	520
	2018	2,281	2,665	..	109	-15	4,852	487
	2019	2,251	2,953	..	*94	..	5,109	506
Kazakhstan	2016	14,148	1,794	4,001	*331	-493	12,103	679
	2017	14,857	1,922	4,289	*477	-380	12,393	685
	2018	16,110	1,536	5,511	616	43	11,477	626
	2019	17,462	622	5,092	622	57	12,313	664
Korea, Dem.Ppl's.Rep.	2016	515	511	..	..	..	1,026	41
	2017	515	424	..	..	..	939	37
	2018	515	415	..	..	..	930	36
	2019	515	502	..	..	..	1,017	40



Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Korea, Republic of	2016	156,422	39,328	62,396	15,008	-46	118,392	2,322
	2017	164,332	37,113	64,818	14,773	441	121,413	2,376
	2018	169,765	40,413	68,700	14,375	798	126,305	2,468
	2019	169,264	40,002	67,173	13,476	-599	129,217	2,523
Kuwait	2016	45,870	..	31,741	1,836	-2,527	14,820	3,745
	2017	40,994	..	27,376	1,881	-2,992	14,729	3,631
	2018	41,453	..	27,740	1,876	-3,078	14,915	3,605
	2019	38,932	..	24,683	1,869	-1,676	14,056	3,341
Kyrgyzstan	2016	379	1,331	64	103	-118	1,661	273
	2017	431	1,250	75	19	38	1,549	250
	2018	544	1,653	134	4	23	2,036	323
	2019	318	1,243	136	*5	-44	1,464	228
Lao People's Dem. Rep.	2016	..	1,067	..	41	..	1,027	150
	2017	..	1,084	..	36	..	1,048	151
	2018	..	1,140	..	58	..	1,082	153
	2019	..	*1,128	..	*36	..	*1,092	*152
Lebanon	2016	..	8,033	..	*274	..	7,759	1,156
	2017	..	8,528	..	*300	..	8,228	1,207
	2018	..	8,055	..	*294	..	7,761	1,131
	2019	..	8,050	..	*300	..	7,749	1,130
Malaysia	2016	26,474	14,802	12,018	2,639	-878	27,497	896
	2017	28,620	12,835	10,861	2,885	-131	27,840	895
	2018	26,315	19,084	15,714	2,838	-298	27,145	861
	2019	24,605	15,424	12,052	3,058	*-1,077	25,997	814
Maldives	2016	..	543	..	*70	..	473	995
	2017	..	565	..	*69	..	496	998
	2018	..	645	..	*78	..	567	1,099
	2019	..	724	..	*86	..	638	1,201
Mongolia	2016	..	960	..	19	..	941	308
	2017	..	1,252	..	27	..	1,225	393
	2018	..	1,327	..	37	..	1,290	407
	2019	..	1,672	..	*40	..	1,632	506
Myanmar	2016	415	3,822	173	89	196	3,779	71
	2017	418	3,858	..	71	-28	4,233	79
	2018	264	6,407	..	71	-114	6,714	125
	2019	218	6,612	..	73	..	6,757	125
Nepal	2016	..	1,881	..	128	0	1,753	64
	2017	..	2,267	..	127	..	2,140	77
	2018	..	2,546	..	124	..	2,422	86
	2019	..	2,311	..	90	..	2,220	78
Oman	2016	8,235	60	1,400	556	163	6,176	1,379
	2017	9,863	342	2,008	581	4	7,612	1,631
	2018	12,381	287	4,536	461	0	7,671	1,588
	2019	12,263	294	4,458	702	0	7,397	1,487
Other Asia	2016	45,378	17,321	17,050	4,030	-172	41,791	1,769
	2017	44,478	17,249	16,494	4,046	-315	41,501	1,753
	2018	46,816	16,278	17,721	4,071	224	41,079	1,731
	2019	46,367	14,275	18,682	4,293	-362	38,029	1,600
Pakistan	2016	12,765	17,483	243	340	54	29,611	145
	2017	14,322	15,497	345	*295	*-81	29,259	141
	2018	14,036	10,395	291	*250	-5	23,896	113
	2019	12,538	11,925	156	*280	..	24,027	111

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Philippines	2016	10,089	10,817	1,321	1,365	133	18,086	174
	2017	9,847	12,172	1,550	1,702	174	18,594	177
	2018	11,110	12,085	1,757	1,733	390	19,315	181
	2019	7,735	13,650	1,045	1,696	45	18,599	172
Qatar	2016	23,757	540	19,132	1,719	2,685	761	287
	2017	26,530	115	20,810	3,294	-353	2,894	1,062
	2018	27,397	222	21,595	4,332	291	1,401	504
	2019	25,085	232	17,509	4,603	0	3,205	1,132
Saudi Arabia	2016	187,498	27,967	95,349	6,256	85	113,775	3,507
	2017	188,949	24,791	105,283	6,395	-611	102,673	3,102
	2018	186,113	42,095	114,138	6,964	451	106,655	3,165
	2019	178,091	*17,302	*84,239	*6,791	*-900	105,262	3,072
Singapore	2016	50,852	113,629	97,029	55,920	-375	11,907	2,106
	2017	53,684	120,494	101,415	58,173	192	14,398	2,522
	2018	49,002	107,359	89,817	57,943	-557	9,159	1,591
	2019	50,315	97,431	85,329	55,357	-315	7,375	1,271
Sri Lanka	2016	1,647	3,634	89	1,117	-1,291	5,365	255
	2017	1,636	3,949	0	1,104	-822	5,304	251
	2018	1,607	4,114	91	1,117	-98	4,611	217
	2019	1,797	4,151	37	1,118	-62	4,855	228
State of Palestine	2016	..	1,084	0	..	0	1,084	234
	2017	..	1,090	0	..	..	1,090	230
	2018	..	1,001	0	..	0	1,001	206
	2019	..	1,099	0	..	..	1,099	221
Syrian Arab Republic	2016	7,072	985	714	395	..	6,948	398
	2017	7,844	1,047	787	371	..	7,733	452
	2018	7,351	989	738	361	..	7,241	427
	2019	6,370	892	641	366	..	6,255	366
Tajikistan	2016	24	945	*9	35	..	925	107
	2017	23	784	..	18	..	789	89
	2018	46	935	..	29	..	953	105
	2019	30	986	..	40	..	977	105
Thailand	2016	64,436	6,518	10,981	5,190	3,321	51,462	746
	2017	66,165	6,547	12,007	5,314	3,585	51,806	749
	2018	67,487	6,598	13,016	5,875	3,770	51,423	741
	2019	61,553	8,924	10,162	5,783	2,620	51,912	746
Timor-Leste	2016	..	168	..	*3	..	166	136
	2017	..	187	..	*4	..	184	148
	2018	..	176	..	*3	..	172	136
	2019	..	213	..	*3	..	210	162
Turkey	2016	31,667	24,669	6,489	4,227	410	45,210	566
	2017	34,042	26,417	6,760	4,320	299	49,080	605
	2018	30,160	27,480	5,004	4,633	739	47,264	574
	2019	38,348	20,804	8,491	5,202	-264	45,723	548
Turkmenistan	2016	9,178	..	2,554	470	..	6,154	1,087
	2017	9,187	..	2,554	470	..	6,163	1,070
	2018	9,233	..	2,554	470	..	6,209	1,061
	2019	9,260	..	2,554	470	..	6,236	1,049
United Arab Emirates	2016	65,896	21,146	49,625	*16,800	*43	20,573	2,198
	2017	65,312	17,487	45,140	17,906	1,293	18,460	1,946
	2018	66,384	19,772	50,079	15,672	*-38	20,444	2,123
	2019	69,581	24,926	45,747	23,919	*-44	24,885	2,547

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Uzbekistan	2016	3,653	*772	34	*91	-27	4,327	138
	2017	3,609	*876	*42	*73	9	4,362	136
	2018	3,847	*887	6	*90	114	4,524	139
	2019	3,611	*1,153	53	*69	-64	4,706	143
Viet Nam	2016	6,969	17,295	2,828	988	20	20,428	218
	2017	6,439	17,638	1,937	1,140	116	20,884	221
	2018	10,682	16,750	2,221	1,415	576	23,220	243
	2019	13,206	13,907	2,130	1,460	127	23,396	243
Yemen	2016	802	2,077	*194	107	..	2,578	95
	2017	1,034	1,774	*257	102	..	2,450	88
	2018	1,205	1,648	*309	102	-1	2,443	86
	2019	1,928	1,526	*497	117	..	2,839	97
<b>Europe</b>	<b>2016</b>	<b>990,043</b>	<b>413,816</b>	<b>526,996</b>	<b>118,140</b>	<b>2,091</b>	<b>756,633</b>	<b>1,014</b>
	<b>2017</b>	<b>1,015,466</b>	<b>414,163</b>	<b>529,862</b>	<b>124,036</b>	<b>-6,785</b>	<b>782,516</b>	<b>1,047</b>
	<b>2018</b>	<b>1,011,132</b>	<b>411,831</b>	<b>517,736</b>	<b>122,194</b>	<b>-3,342</b>	<b>786,375</b>	<b>1,050</b>
	<b>2019</b>	<b>1,007,806</b>	<b>408,553</b>	<b>529,349</b>	<b>113,816</b>	<b>4,380</b>	<b>768,814</b>	<b>1,026</b>
Albania	2016	183	1,208	19	40	127	1,205	417
	2017	503	1,230	155	42	170	1,366	474
	2018	291	1,075	145	37	84	1,100	382
	2019	323	1,135	184	40	71	1,164	404
Andorra	2016	..	154	..	0	..	154	1,988
	2017	..	153	..	0	..	153	1,992
	2018	..	162	..	0	..	161	2,097
	2019	..	158	..	0	..	157	2,041
Austria	2016	8,863	6,798	2,757	759	-129	12,273	1,403
	2017	8,790	6,987	2,758	734	-67	12,352	1,400
	2018	9,460	6,673	3,183	817	-90	12,223	1,375
	2019	9,853	6,792	2,944	937	10	12,754	1,424
Belarus	2016	18,780	1,796	13,637	119	5	6,815	721
	2017	18,545	1,756	12,973	126	236	6,966	737
	2018	18,866	1,238	11,890	144	175	7,895	835
	2019	17,725	140	10,752	186	105	6,822	722
Belgium	2016	35,394	26,210	29,369	8,282	-254	24,207	2,132
	2017	37,249	28,713	33,809	9,308	-893	23,739	2,079
	2018	35,703	31,631	32,560	11,264	239	23,271	2,027
	2019	36,720	28,347	32,364	10,155	512	22,036	1,910
Bosnia and Herzegovina	2016	826	1,071	235	10	6	1,646	486
	2017	862	1,092	272	10	27	1,645	491
	2018	704	1,132	242	7	-36	1,623	488
	2019	74	1,554	42	9	-37	1,614	489
Bulgaria	2016	6,942	2,838	4,568	285	103	4,824	675
	2017	7,142	2,659	4,794	312	7	4,688	660
	2018	6,189	2,169	3,530	331	-168	4,664	661
	2019	6,968	2,250	4,263	312	-25	4,666	667
Croatia	2016	3,755	2,101	2,076	123	117	3,540	841
	2017	3,924	2,315	2,484	147	-51	3,658	875
	2018	3,966	2,187	2,426	196	90	3,441	828
	2019	2,947	2,767	2,167	215	0	3,333	807
Czechia	2016	5,998	4,869	2,225	306	-22	8,358	787
	2017	8,654	3,855	2,430	343	-84	9,820	923
	2018	8,273	4,402	2,265	396	150	9,864	925
	2019	8,522	4,043	2,286	405	-36	9,910	927

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Denmark	2016	9,354	9,260	9,004	1,581	-175	8,204	1,436
	2017	9,019	5,638	6,747	1,470	-996	7,436	1,297
	2018	9,353	6,089	6,615	1,578	-454	7,703	1,339
	2019	8,875	7,211	6,528	1,750	781	7,027	1,217
Estonia	2016	..	1,812	479	323	12	998	758
	2017	..	1,889	419	377	79	1,014	769
	2018	..	2,059	682	365	-64	1,076	814
	2019	..	1,862	508	236	60	1,059	799
Faeroe Islands	2016	..	*237	..	33	..	*204	*4,231
	2017	..	*267	..	37	..	*230	*4,753
	2018	..	*275	..	39	..	*236	*4,867
	2019	..	*286	..	45	..	*241	*4,952
Finland	2016	14,748	5,919	9,065	915	-272	10,959	1,993
	2017	15,357	5,145	9,000	1,016	-176	10,662	1,935
	2018	15,516	4,813	8,807	1,086	-118	10,554	1,911
	2019	15,556	5,201	9,490	1,156	-308	10,419	1,883
France	2016	64,523	41,686	20,553	7,060	21	78,575	1,175
	2017	64,985	41,242	20,215	7,245	-42	78,809	1,175
	2018	60,773	42,347	19,969	7,669	-401	75,883	1,129
	2019	56,056	44,898	17,170	7,698	-146	76,232	1,131
Germany	2016	109,616	38,760	22,833	11,284	720	113,539	1,381
	2017	111,005	41,065	23,497	11,639	-528	117,462	1,421
	2018	105,695	40,337	22,641	11,326	-494	112,559	1,354
	2019	107,107	42,136	22,050	10,906	280	116,007	1,389
Gibraltar	2016	..	4,064	..	3,843	..	221	6,550
	2017	..	4,505	..	4,278	..	227	6,743
	2018	..	4,427	..	4,177	..	250	7,409
	2019	..	4,527	..	4,280	..	247	7,343
Greece	2016	30,408	9,116	18,066	2,635	-173	18,996	1,790
	2017	31,961	9,633	18,961	3,172	252	19,209	1,817
	2018	32,968	9,627	19,975	3,326	-76	19,370	1,841
	2019	30,375	9,595	18,100	3,711	-197	18,356	1,753
Hungary	2016	7,878	3,164	2,896	186	252	7,708	790
	2017	7,609	3,793	3,083	216	18	8,085	831
	2018	8,198	4,133	3,554	267	-59	8,569	883
	2019	7,909	4,352	3,280	270	29	8,682	896
Iceland	2016	16	928	..	349	10	585	1,762
	2017	18	963	..	431	-2	552	1,650
	2018	21	1,111	..	484	61	588	1,745
	2019	21	881	..	368	-40	574	1,693
Ireland	2016	3,287	5,717	1,634	977	-72	6,465	1,377
	2017	3,309	6,003	1,864	1,116	126	6,206	1,306
	2018	3,134	6,033	1,693	1,199	-110	6,384	1,325
	2019	2,847	6,308	1,497	1,192	-107	6,573	1,346
Italy	2016	73,946	20,429	28,880	5,506	-553	60,542	997
	2017	77,925	18,185	31,042	5,719	-108	59,457	979
	2018	75,196	19,149	28,974	6,549	45	58,777	969
	2019	76,671	17,155	27,527	6,607	348	59,343	980
Kosovo	2016	..	683	11	4	..	668	376
	2017	..	759	3	6	..	750	419
	2018	..	764	12	3	..	749	417
	2019	..	801	15	2	..	783	436

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Latvia	2016	18	2,739	806	436	174	1,341	679
	2017	16	2,541	750	398	15	1,395	715
	2018	47	2,433	868	186	-21	1,446	750
	2019	47	2,285	479	442	11	1,400	734
Lithuania	2016	9,856	2,090	8,483	259	3	3,201	1,108
	2017	10,095	1,336	8,216	281	-103	3,037	1,067
	2018	9,894	1,092	7,532	328	34	3,093	1,104
	2019	9,718	1,096	7,464	318	-42	3,072	1,113
Luxembourg	2016	..	2,701	10	493	1	2,197	3,793
	2017	..	2,852	25	558	-7	2,277	3,846
	2018	..	3,001	3	597	-8	2,409	3,987
	2019	..	3,066	5	583	11	2,467	4,007
Malta	2016	..	2,690	273	1,935	43	439	1,007
	2017	..	2,928	152	2,346	106	324	741
	2018	..	3,014	354	2,436	-66	290	659
	2019	..	3,133	382	2,500	-67	318	721
Montenegro	2016	..	357	15	19	16	307	489
	2017	..	400	33	20	9	338	538
	2018	..	414	29	26	-3	362	577
	2019	..	417	31	21	-13	378	602
Netherlands	2016	64,450	93,248	113,113	15,764	-602	29,423	1,733
	2017	63,870	90,598	111,473	15,645	-1,865	29,214	1,716
	2018	65,455	87,696	109,511	15,234	-1,001	29,407	1,724
	2019	66,453	83,806	104,743	15,835	1,375	28,305	1,656
North Macedonia	2016	0	1,213	110	..	22	1,081	519
	2017	0	1,117	99	..	-4	1,022	491
	2018	..	1,096	124	..	-8	979	470
	2019	..	1,251	159	..	21	1,071	514
Norway	2016	22,654	5,760	16,943	574	-344	11,241	2,141
	2017	26,427	6,038	19,092	672	-186	12,887	2,433
	2018	26,156	5,750	19,393	726	189	11,598	2,173
	2019	23,705	6,300	19,160	683	-145	10,307	1,916
Poland	2016	28,280	7,416	7,125	847	145	27,579	726
	2017	28,105	9,763	5,195	1,092	324	31,256	824
	2018	29,896	9,263	5,915	1,247	142	31,855	840
	2019	30,207	8,799	5,242	1,320	124	32,319	853
Portugal	2016	15,417	3,563	6,681	1,908	35	10,356	1,003
	2017	15,994	3,757	6,915	2,051	-49	10,833	1,053
	2018	14,322	3,781	5,290	2,165	336	10,311	1,005
	2019	13,243	4,875	4,802	2,405	-250	11,161	1,091
Republic of Moldova	2016	16	899	16	32	18	849	209
	2017	15	937	35	47	-9	879	217
	2018	10	1,014	27	54	0	943	233
	2019	5	1,016	9	48	8	956	237
Romania	2016	12,236	2,905	5,099	279	129	9,634	487
	2017	12,528	3,228	4,970	319	1	10,466	533
	2018	12,650	3,257	5,283	137	-151	10,638	545
	2019	13,377	3,280	5,393	164	28	11,071	572
Russian Federation	2016	273,944	1,303	*124,764	21,139	590	128,754	886
	2017	281,548	1,266	*120,834	22,521	82	139,377	958
	2018	285,776	1,187	*120,131	*17,258	292	149,282	1,024
	2019	297,661	1,365	154,398	8,060	176	136,392	935

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Serbia	2016	3,572	1,098	736	135	-34	3,833	542
	2017	3,787	1,087	855	142	44	3,832	544
	2018	4,014	1,001	923	152	55	3,885	555
	2019	3,635	1,216	789	153	-66	3,975	570
Slovakia	2016	6,582	1,754	4,116	48	26	4,146	762
	2017	6,560	1,972	3,895	39	-62	4,660	855
	2018	6,348	1,944	3,540	46	47	4,659	854
	2019	5,989	1,856	3,350	44	18	4,433	812
Slovenia	2016	16	4,548	2,045	145	7	2,367	1,141
	2017	24	4,720	2,080	183	81	2,399	1,155
	2018	74	4,752	2,112	263	-19	2,470	1,189
	2019	102	4,882	2,306	220	36	2,422	1,165
Spain	2016	66,288	21,295	25,130	11,680	468	50,305	1,079
	2017	67,341	23,204	27,578	11,191	-1,296	53,072	1,138
	2018	69,592	20,871	25,500	11,706	-347	53,604	1,148
	2019	67,166	21,186	23,865	11,950	408	52,129	1,115
Sweden	2016	22,303	10,748	16,839	2,832	986	12,394	1,260
	2017	22,317	10,014	17,884	3,231	-1,574	12,790	1,291
	2018	23,066	9,118	17,096	2,703	-793	13,179	1,322
	2019	19,334	8,461	11,609	2,916	823	12,446	1,240
Switzerland	2016	3,108	7,759	477	1,658	79	8,653	1,033
	2017	3,038	7,717	384	1,714	-129	8,786	1,039
	2018	3,272	6,907	441	1,798	-428	8,369	982
	2019	2,982	8,175	460	1,815	192	8,690	1,011
Ukraine	2016	2,866	9,417	64	*121	573	11,525	258
	2017	3,121	9,751	308	263	-317	12,618	284
	2018	4,064	10,542	322	..	-68	14,352	324
	2019	*2,976	10,711	817	..	-106	12,976	295
United Kingdom	2016	63,921	41,495	25,844	13,216	33	66,323	1,000
	2017	63,825	41,088	24,583	13,579	184	66,568	998
	2018	62,192	41,866	24,180	13,872	-297	66,304	988
	2019	62,657	38,980	22,718	13,856	537	64,525	956
<b>Oceania</b>	<b>2016</b>	<b>30,816</b>	<b>33,852</b>	<b>3,057</b>	<b>6,022</b>	<b>372</b>	<b>55,217</b>	<b>1,366</b>
	<b>2017</b>	<b>29,731</b>	<b>34,786</b>	<b>3,602</b>	<b>6,513</b>	<b>-404</b>	<b>54,806</b>	<b>1,337</b>
	<b>2018</b>	<b>30,353</b>	<b>37,656</b>	<b>3,628</b>	<b>6,889</b>	<b>1,377</b>	<b>56,115</b>	<b>1,350</b>
	<b>2019</b>	<b>32,849</b>	<b>37,104</b>	<b>3,982</b>	<b>7,360</b>	<b>396</b>	<b>58,214</b>	<b>1,382</b>
American Samoa	2016	..	*112	..	*14	..	*98	*1,765
	2017	..	*113	..	*14	..	*99	*1,771
	2018	..	*112	..	*14	..	*98	*1,774
	2019	..	*112	..	*14	..	*98	*1,779
Australia	2016	23,749	27,295	2,059	4,388	393	44,204	1,822
	2017	22,825	28,227	2,635	4,762	-288	43,942	1,787
	2018	23,668	30,129	2,733	5,041	1,010	45,014	1,808
	2019	25,394	29,888	3,125	5,503	361	46,293	1,837
Cook Islands	2016	..	*33	..	*9	..	*24	*1,387
	2017	..	*35	..	*9	..	*26	*1,498
	2018	..	*35	..	*9	..	*26	*1,497
	2019	..	*36	..	*9	..	*27	*1,517
Fiji	2016	..	764	345	*75	*-45	390	447
	2017	..	801	296	*86	*-14	433	493
	2018	..	*899	*330	*96	*25	*449	*508
	2019	..	*887	*337	*91	*10	*450	*506

Table 25

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
French Polynesia	2016	..	279	..	..	-7	286	1,042
	2017	..	287	..	..	2	285	1,034
	2018	..	298	..	..	*10	288	1,037
	2019	..	295	..	..	6	289	1,035
Kiribati	2016	..	19	..	0	..	18	161
	2017	..	24	..	*1	..	23	203
	2018	..	*24	..	*1	..	*23	*201
	2019	..	*24	..	*1	..	*23	*199
Marshall Islands	2016	..	*49	..	*2	..	*47	*809
	2017	..	*50	..	*2	..	*48	*820
	2018	..	*50	..	*2	..	*48	*823
	2019	..	*51	..	*2	..	*49	*825
Micronesia (Fed. States of)	2016	..	*58	..	*9	..	*49	*445
	2017	..	*59	..	*10	..	*49	*439
	2018	..	*59	..	*10	..	*49	*437
	2019	..	*59	..	*10	..	*49	*434
Nauru	2016	..	*27	..	*9	0	*17	*1,638
	2017	..	*26	..	*8	..	*18	*1,725
	2018	..	*25	..	*8	..	*18	*1,646
	2019	..	*25	..	*8	..	*17	*1,603
New Caledonia	2016	..	951	..	29	-20	941	3,432
	2017	..	927	..	33	40	854	3,082
	2018	..	950	..	39	-13	924	3,299
	2019	..	911	..	36	7	868	3,068
New Zealand	2016	5,699	2,728	211	1,345	99	6,772	1,453
	2017	5,528	2,658	236	1,444	-169	6,675	1,420
	2018	5,518	3,122	205	1,528	336	6,571	1,385
	2019	6,230	2,764	128	1,543	3	7,320	1,530
Niue	2016	..	*2	..	*1	..	*2	*1,178
	2017	..	*2	..	0	..	*2	*1,140
	2018	..	*2	..	0	..	*2	*1,216
	2019	..	*3	..	0	..	*2	*1,258
Northern Mariana Islands	2016	..	*190	..	*20	..	*170	*3,026
	2017	..	*206	..	*26	..	*180	*3,183
	2018	..	*199	..	*23	..	*176	*3,094
	2019	..	*200	..	*23	..	*177	*3,094
Palau	2016	..	*80	..	*11	..	*69	*3,919
	2017	..	*83	..	*12	..	*71	*3,992
	2018	..	*84	..	*13	..	*71	*3,942
	2019	..	*86	..	*14	..	*72	*4,022
Papua New Guinea	2016	1,368	949	442	*72	-48	1,851	224
	2017	1,378	955	434	*67	11	1,821	216
	2018	1,167	1,332	360	66	8	2,066	240
	2019	*1,226	*1,416	*391	*67	*12	*2,171	*247
Samoa	2016	..	92	1	12	*-1	80	410
	2017	..	102	*1	*12	*6	83	427
	2018	..	95	*1	*12	0	81	414
	2019	..	110	*1	*12	*6	91	461
Solomon Islands	2016	..	*106	..	*9	..	*97	*156
	2017	..	*105	..	*9	..	*96	*150
	2018	..	*107	..	*9	..	*97	*149
	2019	..	*108	..	*9	..	*99	*147

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tonga	2016	..	46	..	*3	*1	41	407
	2017	..	55	..	*5	*7	43	426
	2018	..	49	..	*4	*1	44	427
	2019	..	47	..	*4	*-9	52	498
Tuvalu	2016	..	*3	..	0	..	*2	*211
	2017	..	*3	..	0	..	*2	*216
	2018	..	*3	..	0	..	*3	*245
	2019	..	*3	..	0	..	*3	*242
Vanuatu	2016	..	61	..	*11	0	50	181
	2017	..	59	..	*12	..	47	165
	2018	..	71	..	*13	..	59	201
	2019	..	69	..	*13	..	55	185
Wallis and Futuna Is.	2016	..	9	..	1	..	8	676
	2017	..	9	..	1	..	8	675
	2018	..	9	..	1	..	8	702
	2019	..	10	..	1	..	8	738





### Production of natural gas liquids – by end use

Thousand metric tons

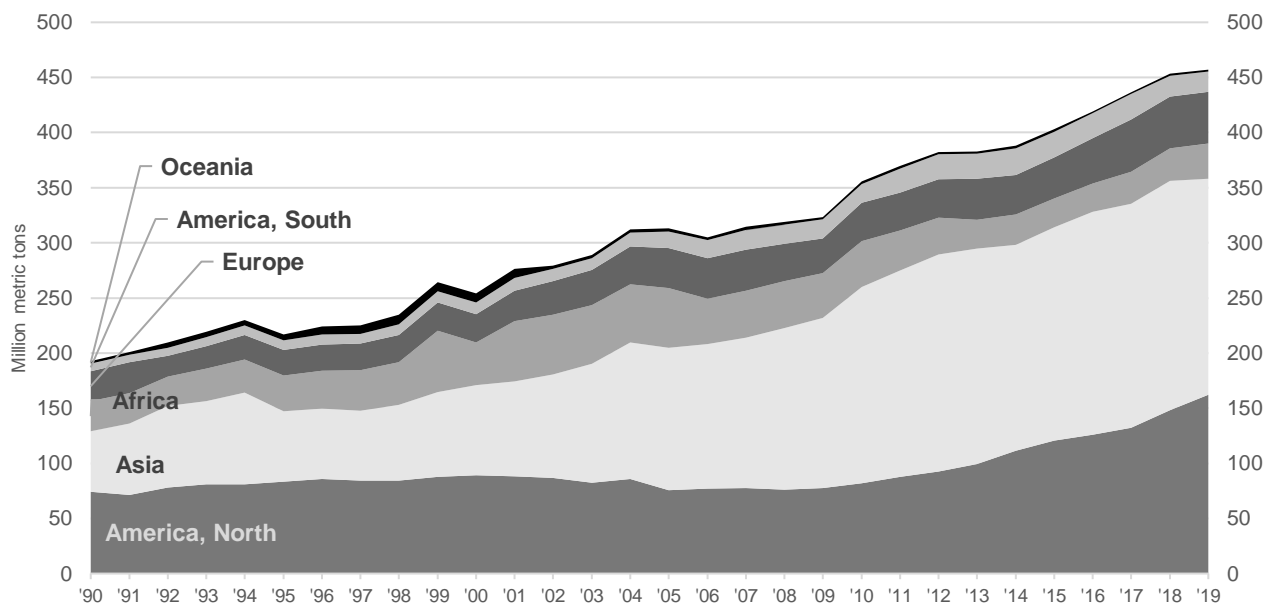
#### Table Notes

**Production** refers to production of natural gas liquids.

**End-use products** refers to the output of natural gas liquids plants, arranged by product.  
**Net imports** refers to imports minus exports.  
**Inputs of NGLs to refineries** refers to quantities of natural gas liquids that are transformed in oil refineries. Data may not add up due to statistical differences or the presence of other natural gas liquid flows such as stock changes, transfers or energy industries own use.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 66: Production of natural gas liquids by region, 1990-2019**



**Figure 67: Production of natural gas liquids by end-use product, 2019**

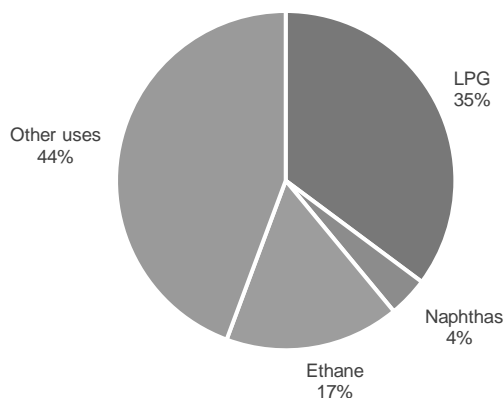


Table 26

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
<b>World</b>	<b>2016</b>	<b>419,291</b>	<b>145,093</b>	<b>8,913</b>	<b>61,420</b>	<b>8,266</b>	<b>-60,210</b>	<b>111,832</b>
	<b>2017</b>	<b>436,602</b>	<b>150,534</b>	<b>5,976</b>	<b>65,801</b>	<b>8,735</b>	<b>-58,154</b>	<b>119,746</b>
	<b>2018</b>	<b>453,362</b>	<b>153,188</b>	<b>6,425</b>	<b>73,230</b>	<b>7,372</b>	<b>-71,222</b>	<b>118,036</b>
	<b>2019</b>	<b>457,064</b>	<b>160,811</b>	<b>17,452</b>	<b>76,160</b>	<b>7,727</b>	<b>-79,661</b>	<b>111,630</b>
<b>Africa</b>	<b>2016</b>	<b>25,907</b>	<b>11,162</b>	<b>183</b>	<b>0</b>	<b>..</b>	<b>-10,204</b>	<b>4,157</b>
	<b>2017</b>	<b>29,328</b>	<b>11,764</b>	<b>219</b>	<b>..</b>	<b>..</b>	<b>-13,003</b>	<b>4,900</b>
	<b>2018</b>	<b>29,135</b>	<b>11,516</b>	<b>231</b>	<b>..</b>	<b>..</b>	<b>-13,807</b>	<b>4,662</b>
	<b>2019</b>	<b>31,675</b>	<b>11,478</b>	<b>232</b>	<b>..</b>	<b>..</b>	<b>-16,611</b>	<b>3,738</b>
Algeria	2016	17,924	8,593	101	0	..	-5,209	4,097
	2017	17,744	8,412	113	..	..	-4,200	4,813
	2018	17,220	8,314	81	..	..	-4,290	4,574
	2019	16,517	8,259	107	..	..	-4,374	3,650
Angola	2016	904	225	..	..	..	-810	..
	2017	3,962	941	..	..	..	-3,803	..
	2018	4,091	822	..	..	..	-4,341	..
	2019	4,478	1,057	..	..	..	-4,282	..
Cameroon	2016	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..
	2018	16	..	..	..	..	..	..
	2019	24	..	..	..	..	..	..
Congo	2016	301	..	..	..	..	-280	21
	2017	301	..	..	..	..	-276	24
	2018	301	..	..	..	..	-276	25
	2019	301	..	..	..	..	-276	25
Côte d'Ivoire	2016	6	6	..	..	..	..	..
	2017	6	6	..	..	..	..	..
	2018	5	5	..	..	..	..	..
	2019	6	6	..	..	..	..	..
Egypt	2016	1,312	1,312	..	..	..	..	..
	2017	1,230	1,230	..	..	..	..	..
	2018	1,299	1,299	..	..	..	..	..
	2019	1,193	1,193	..	..	..	..	..
Equatorial Guinea	2016	605	605	..	..	..	..	..
	2017	660	660	..	..	..	..	..
	2018	587	587	..	..	..	..	..
	2019	512	512	..	..	..	..	..
Ghana	2016	..	..	..	..	..	..	..
	2017	114	114	..	..	..	..	..
	2018	80	80	..	..	..	..	..
	2019	66	66	..	..	..	..	..
Libya	2016	1,832	281	82	..	..	-1,469	..
	2017	2,476	277	106	..	..	-2,093	..
	2018	2,870	292	150	..	..	-2,428	..
	2019	3,423	284	125	..	..	-3,014	..
Mozambique	2016	..	..	..	..	..	..	..
	2017	9	..	..	..	..	-9	..
	2018	8	..	..	..	..	-8	..
	2019	7	..	..	..	..	-7	..
Nigeria	2016	2,747	..	..	..	..	-2,366	..
	2017	2,557	..	..	..	..	-2,553	..
	2018	2,424	..	..	..	..	-2,413	..
	2019	4,943	..	..	..	..	-4,623	..

Table 26

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
South Africa	2016	39	..	..	..	..	..	39
	2017	63	..	..	..	..	..	63
	2018	63	..	..	..	..	..	63
	2019	63	..	..	..	..	..	63
Tunisia	2016	237	140	..	..	..	-70	..
	2017	206	123	..	..	..	-69	..
	2018	172	118	..	..	..	-51	..
	2019	142	102	..	..	..	-34	..
<b>America, North</b>	<b>2016</b>	<b>125,842</b>	<b>47,279</b>	..	<b>29,861</b>	<b>3,109</b>	<b>-9,583</b>	<b>20,166</b>
	<b>2017</b>	<b>132,039</b>	<b>49,954</b>	..	<b>32,996</b>	<b>3,482</b>	<b>-9,852</b>	<b>20,936</b>
	<b>2018</b>	<b>148,230</b>	<b>56,383</b>	..	<b>38,883</b>	<b>3,609</b>	<b>-11,476</b>	<b>20,950</b>
	<b>2019</b>	<b>162,134</b>	<b>65,029</b>	..	<b>41,214</b>	<b>4,558</b>	<b>-13,110</b>	<b>19,259</b>
Belize	2016	*1	1	..	..	..	..	..
	2017	*1	1	..	..	..	..	..
	2018	*1	1	..	..	..	..	..
	2019	*1	1	..	..	..	..	..
Canada	2016	15,938	..	..	..	..	-2,202	1,156
	2017	15,946	..	..	..	..	-3,348	1,400
	2018	17,550	..	..	..	..	-4,300	1,700
	2019	18,587	..	..	..	..	-6,362	1,109
Curaçao	2016	..	51	..	..	..	51	..
	2017	..	36	..	..	..	36	..
	2018	..	27	..	..	..	27	..
	2019	..	0	..	..	..	0	..
Mexico	2016	8,691	4,181	..	2,216	..	..	2,110
	2017	7,920	3,807	..	2,106	..	..	1,866
	2018	6,764	3,357	..	1,767	..	..	1,549
	2019	6,218	3,048	..	1,593	..	..	1,486
Trinidad and Tobago	2016	865	499	..	..	401	..	..
	2017	921	547	..	..	406	..	..
	2018	805	454	..	..	388	..	..
	2019	801	436	..	..	408	..	..
United States	2016	100,347	42,547	..	27,645	2,708	-7,432	16,900
	2017	107,251	45,564	..	30,890	3,075	-6,540	17,670
	2018	123,109	52,545	..	37,116	3,221	-7,202	17,701
	2019	136,527	61,544	..	39,621	4,150	-6,748	16,664
<b>America, South</b>	<b>2016</b>	<b>22,640</b>	<b>7,547</b>	<b>108</b>	<b>1,022</b>	<b>4,651</b>	<b>-244</b>	<b>7,445</b>
	<b>2017</b>	<b>22,943</b>	<b>7,415</b>	<b>108</b>	<b>980</b>	<b>4,582</b>	<b>-256</b>	<b>6,260</b>
	<b>2018</b>	<b>19,255</b>	<b>6,446</b>	<b>20</b>	<b>1,102</b>	<b>3,277</b>	<b>-263</b>	<b>5,682</b>
	<b>2019</b>	<b>18,465</b>	<b>6,246</b>	<b>0</b>	<b>1,074</b>	<b>2,802</b>	<b>-270</b>	<b>4,846</b>
Argentina	2016	3,478	1,537	..	1,022	0	-244	675
	2017	3,435	1,573	..	980	..	-256	626
	2018	3,859	1,747	..	1,102	..	-263	747
	2019	4,106	1,995	..	1,074	..	-270	767
Bolivia (Plur. State of)	2016	1,047	421	..	..	..	..	564
	2017	1,057	418	..	..	..	..	573
	2018	1,032	443	..	..	..	..	527
	2019	1,016	451	..	..	..	..	474
Brazil	2016	5,349	1,450	108	..	1,462	..	1,206
	2017	6,201	1,456	108	..	1,465	..	1,363
	2018	5,517	1,334	20	..	1,580	..	1,664
	2019	5,735	1,288	0	..	1,120	..	1,764

Table 26

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Chile	2016	41	..	..	..	..	..	..
	2017	108	..	..	..	..	..	..
	2018	224	..	..	..	..	..	..
	2019	307	..	..	..	..	..	..
Colombia	2016	1,405	294	..	..	1,111	..	..
	2017	1,521	362	..	..	1,159	..	..
	2018	334	334	..	..	0	..	..
	2019	372	372	..	..	0	..	..
Ecuador	2016	176	97	..	..	79	..	..
	2017	174	100	..	..	78	..	..
	2018	125	145	..	..	71	..	0
	2019	137	88	..	..	64	..	0
Peru	2016	3,491	1,435	..	..	1,891	..	..
	2017	3,336	1,351	..	..	1,773	..	..
	2018	3,142	1,210	..	..	1,537	..	..
	2019	3,188	1,262	..	..	1,534	..	..
Venezuela (Bolivar. Rep.)	2016	7,653	2,313	..	..	108	..	*5,000
	2017	7,112	2,156	..	..	107	..	3,698
	2018	5,022	1,233	..	..	89	..	2,744
	2019	3,603	790	..	..	83	..	1,840
<b>Asia</b>	<b>2016</b>	<b>202,180</b>	<b>69,565</b>	<b>7,461</b>	<b>27,747</b>	<b>154</b>	<b>-47,089</b>	<b>48,845</b>
	<b>2017</b>	<b>203,262</b>	<b>71,432</b>	<b>4,559</b>	<b>29,136</b>	<b>138</b>	<b>-44,144</b>	<b>48,265</b>
	<b>2018</b>	<b>208,143</b>	<b>69,681</b>	<b>5,235</b>	<b>30,682</b>	<b>148</b>	<b>-52,698</b>	<b>48,523</b>
	<b>2019</b>	<b>196,187</b>	<b>69,240</b>	<b>16,377</b>	<b>32,038</b>	<b>178</b>	<b>-52,955</b>	<b>47,465</b>
Azerbaijan	2016	2,835	14	23	..	..	-2,494	304
	2017	2,688	12	20	..	..	-2,357	299
	2018	2,921	12	20	..	..	-2,510	379
	2019	*3,940	12	*24	..	..	-3,534	370
Bahrain	2016	356	..	..	..	..	-367	..
	2017	337	..	..	..	..	-315	..
	2018	385	..	..	..	..	-365	..
	2019	651	..	..	..	..	-693	..
Bangladesh	2016	321	8	..	..	154	..	146
	2017	409	6	..	..	138	..	256
	2018	407	6	..	..	148	..	243
	2019	392	7	..	..	178	..	189
Brunei Darussalam	2016	513	16	..	..	..	-435	85
	2017	544	17	..	..	..	-464	81
	2018	518	17	..	..	..	-392	126
	2019	524	18	..	..	..	-406	100
India	2016	*4,295	358	2,339	..	..	..	*1,598
	2017	*4,609	2,210	1,220	..	..	..	*1,179
	2018	*4,932	*2,086	*1,250	..	..	..	*1,596
	2019	*4,763	*2,100	*1,280	..	..	..	*1,383
Indonesia	2016	4,857	1,410	..	..	..	649	..
	2017	4,285	1,162	..	..	..	423	185
	2018	4,084	1,143	..	..	..	241	67
	2019	3,945	1,140	..	..	..	1,583	..
Iran (Islamic Rep. of)	2016	26,429	2,749	..	8,658	..	-16,438	2,243
	2017	28,801	2,720	..	9,711	..	-10,958	2,567
	2018	30,432	2,656	..	10,479	..	-11,578	2,633
	2019	29,827	2,775	..	10,098	..	-11,348	2,531

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Iraq	2016	1,609	1,253	..	..	..	356	
	2017	1,861	1,449	..	..	..	412	
	2018	1,978	1,540	..	..	..	438	
	2019	2,018	1,571	..	..	..	446	
Japan	2016	236	..	..	..	6,004	6,149	
	2017	240	..	..	..	2,049	2,054	
	2018	215	..	..	..	1,725	1,870	
	2019	198	..	..	..	2,232	2,390	
Kazakhstan	2016	12,462	*1,267	..	..	-11,195	..	
	2017	13,270	1,238	..	..	-12,032	..	
	2018	12,863	1,493	..	..	-11,371	..	
	2019	11,912	1,552	..	..	-10,360	..	
Kuwait	2016	8,023	5,868	..	2,155	..	..	
	2017	8,843	6,688	..	2,155	..	..	
	2018	9,004	6,849	..	2,155	..	..	
	2019	8,026	5,871	..	2,155	..	..	
Malaysia	2016	2,456	1,893	..	..	..	..	
	2017	2,338	1,838	243	..	..	..	
	2018	2,398	1,906	230	..	..	..	
	2019	1,789	1,837	*191	..	..	..	
Myanmar	2016	10	6	4	..	..	..	
	2017	12	8	4	..	..	..	
	2018	13	13	5	..	..	..	
	2019	13	7	4	..	..	..	
Oman	2016	254	254	..	..	..	..	
	2017	238	238	..	..	..	..	
	2018	239	239	..	..	..	..	
	2019	281	281	..	..	..	..	
Pakistan	2016	489	489	..	..	..	..	
	2017	571	*571	..	..	..	..	
	2018	564	*564	..	..	..	..	
	2019	599	*599	..	..	..	..	
Qatar	2016	42,544	9,834	..	1,070	-22,452	9,188	
	2017	41,876	9,687	..	960	-18,840	12,390	
	2018	42,758	10,523	..	1,006	-18,840	12,390	
	2019	40,268	8,031	..	1,007	-18,840	12,390	
Saudi Arabia	2016	47,837	27,829	*865	12,408	..	9,473	
	2017	46,923	27,469	*350	12,590	4,095	8,416	
	2018	47,596	25,264	*961	13,356	4,341	8,494	
	2019	46,250	*26,872	*9,533	*12,913	*11,741	*8,674	
Syrian Arab Republic	2016	76	76	..	..	..	..	
	2017	76	76	..	..	..	..	
	2018	76	76	..	..	..	..	
	2019	86	86	..	..	..	..	
Thailand	2016	6,439	4,166	..	2,059	-54	..	
	2017	6,804	4,235	..	2,333	-33	..	
	2018	6,861	4,309	..	2,388	-18	..	
	2019	6,673	4,238	..	2,220	-33	..	
Turkmenistan	2016	934	638	..	..	..	296	
	2017	943	655	..	..	..	288	
	2018	989	707	..	..	..	282	
	2019	1,015	736	..	..	..	279	

Table 26

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
United Arab Emirates	2016	36,712	11,090	*4,230	*1,397	..	..	17,169
	2017	34,913	10,802	*2,722	1,387	..	-5,359	18,164
	2018	35,981	9,886	*2,769	1,298	..	-13,540	17,861
	2019	29,919	11,104	5,345	*3,645	..	-22,924	16,390
Uzbekistan	2016	1,747	..	..	..	..	91	1,839
	2017	1,953	..	..	..	..	23	1,976
	2018	2,145	..	..	..	..	0	2,145
	2019	2,310	..	..	..	..	11	2,321
Viet Nam	2016	307	307	..	..	..	..	..
	2017	317	317	..	..	..	..	..
	2018	381	381	..	..	..	..	..
	2019	391	391	..	..	..	..	..
Yemen	2016	41	41	..	..	..	..	..
	2017	35	35	..	..	..	..	..
	2018	12	12	..	..	..	..	..
	2019	12	12	..	..	..	..	..
<b>Europe</b>	<b>2016</b>	<b>40,901</b>	<b>7,722</b>	<b>1,161</b>	<b>2,790</b>	<b>352</b>	<b>6,914</b>	<b>31,219</b>
	<b>2017</b>	<b>47,308</b>	<b>8,252</b>	<b>1,091</b>	<b>2,689</b>	<b>533</b>	<b>9,104</b>	<b>39,384</b>
	<b>2018</b>	<b>46,943</b>	<b>7,567</b>	<b>939</b>	<b>2,563</b>	<b>338</b>	<b>7,024</b>	<b>38,220</b>
	<b>2019</b>	<b>46,955</b>	<b>7,230</b>	<b>843</b>	<b>1,835</b>	<b>190</b>	<b>3,284</b>	<b>36,322</b>
Austria	2016	6	..	..	..	..	0	6
	2017	37	..	..	..	..	..	37
	2018	18	..	..	..	..	..	18
	2019	16	..	..	..	..	..	16
Belarus	2016	63	61	..	..	2	..	..
	2017	74	71	..	..	3	..	..
	2018	100	97	..	..	3	..	..
	2019	102	98	..	..	4	..	..
Belgium	2016	..	..	..	..	..	58	46
	2017	..	..	..	..	..	23	0
	2018	..	..	..	..	..	21	..
	2019	..	..	..	..	..	..	..
Croatia	2016	59	40	..	..	..	..	19
	2017	64	42	..	..	..	..	22
	2018	58	38	..	..	..	..	19
	2019	59	40	..	..	..	..	13
Finland	2016	..	..	..	..	..	904	938
	2017	..	..	..	..	..	1,367	1,272
	2018	..	..	..	..	..	1,189	1,261
	2019	..	..	..	..	..	549	673
France	2016	0	..	..	..	350	794	404
	2017	..	..	..	..	530	626	136
	2018	..	..	..	..	335	335	..
	2019	..	..	..	..	186	186	..
Hungary	2016	260	121	..	..	..	0	117
	2017	282	89	..	..	..	-19	130
	2018	242	75	..	..	..	..	159
	2019	184	43	..	..	..	..	137
Montenegro	2016	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..
	2018	..	..	..	..	..	4	..
	2019	..	..	..	..	..	5	..

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Netherlands	2016	291	..	..	..	..	6,019	3,042
	2017	240	..	..	..	..	6,919	4,141
	2018	204	..	..	..	..	6,053	3,202
	2019	132	..	..	..	..	4,678	2,284
Norway	2016	10,263	6,433	1,161	1,606	..	..	..
	2017	10,504	6,902	1,091	1,457	..	..	..
	2018	10,006	6,474	939	1,447	..	..	..
	2019	9,061	6,074	843	1,098	..	..	..
Romania	2016	116	..	..	..	..	-33	77
	2017	96	..	..	..	..	-24	66
	2018	91	..	..	..	..	-16	63
	2019	129	..	..	..	..	-30	78
Russian Federation	2016	26,019	..	..	..	..	-1,274	24,832
	2017	31,862	..	..	..	..	-1	31,874
	2018	32,199	..	..	..	..	-229	31,963
	2019	33,431	..	..	..	..	-1,838	31,589
Serbia	2016	33	..	..	..	..	60	93
	2017	35	..	..	..	..	40	76
	2018	34	..	..	..	..	2	36
	2019	31	..	..	..	..	31	61
Slovakia	2016	2	..	..	..	..	..	2
	2017	2	..	..	..	..	..	2
	2018	2	..	..	..	..	..	2
	2019	2	..	..	..	..	..	2
Slovenia	2016	..	..	..	..	..	..	..
	2017	0	..	..	..	..	0	..
	2018	1	..	..	..	..	-1	..
	2019	0	..	..	..	..	0	..
Ukraine	2016	650	..	..	..	..	14	665
	2017	665	..	..	..	..	109	762
	2018	669	..	..	..	..	44	704
	2019	735	..	..	..	..	1	737
United Kingdom	2016	3,139	1,067	..	1,184	..	372	978
	2017	3,446	1,148	..	1,232	..	65	867
	2018	3,320	883	..	1,116	..	-379	793
	2019	3,074	975	..	736	..	-297	733
<b>Oceania</b>	<b>2016</b>	<b>1,821</b>	<b>1,817</b>	..	..	..	<b>-5</b>	..
	<b>2017</b>	<b>1,722</b>	<b>1,717</b>	..	..	..	<b>-2</b>	..
	<b>2018</b>	<b>1,656</b>	<b>1,595</b>	..	..	..	<b>-2</b>	..
	<b>2019</b>	<b>1,648</b>	<b>1,588</b>	..	..	..	..	..
Australia	2016	1,644	1,644	..	..	..	..	..
	2017	1,536	1,536	..	..	..	..	..
	2018	1,472	1,411	..	..	..	..	..
	2019	1,476	1,416	..	..	..	..	..
New Zealand	2016	177	173	..	..	..	-5	..
	2017	186	181	..	..	..	-2	..
	2018	184	184	..	..	..	-2	..
	2019	172	172	..	..	..	..	..





### Production, trade and supply of natural gas

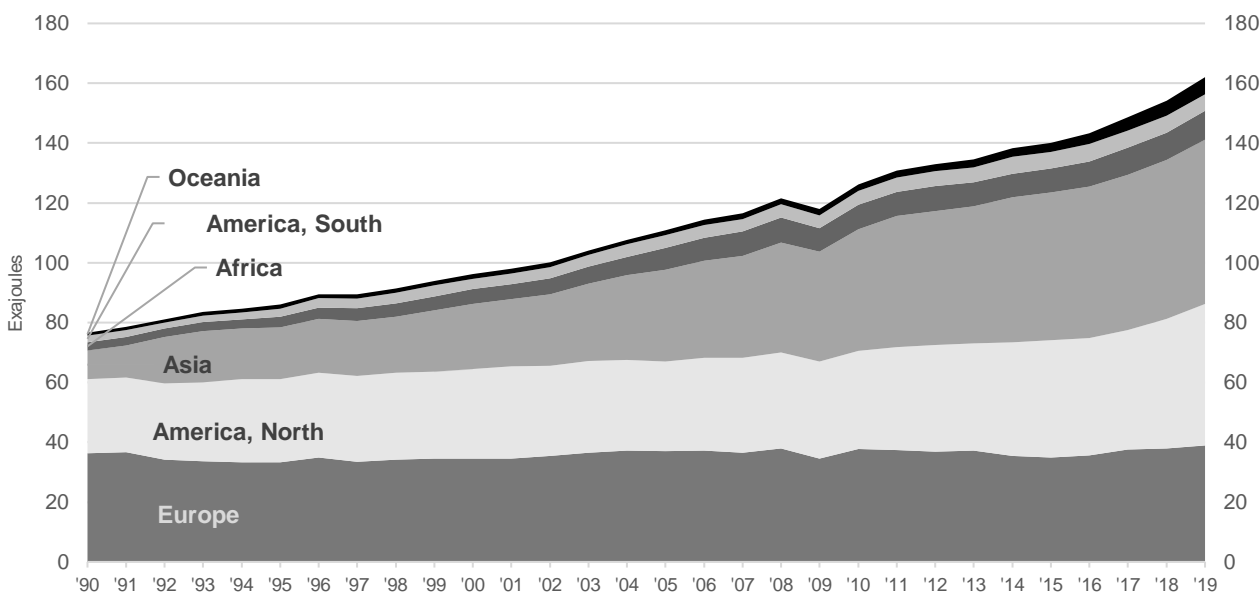
Terajoules

#### Table Notes

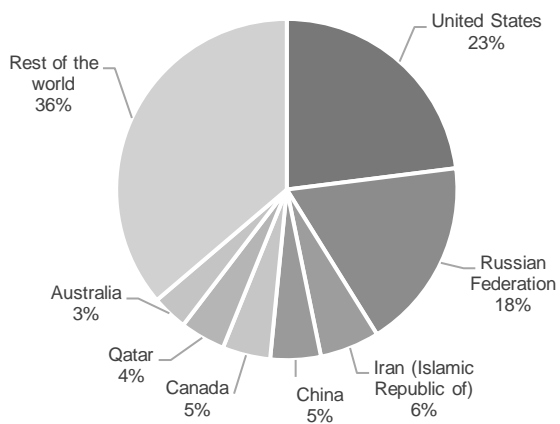
**Production** includes quantities from other sources, which would include any quantities of biogas, LPG or manufactured gas blended with natural gas.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 68: Production of natural gas by region, 1990-2019**



**Figure 69: Major natural gas producing countries, 2019**



**Figure 70: Major natural gas consuming countries, 2019**

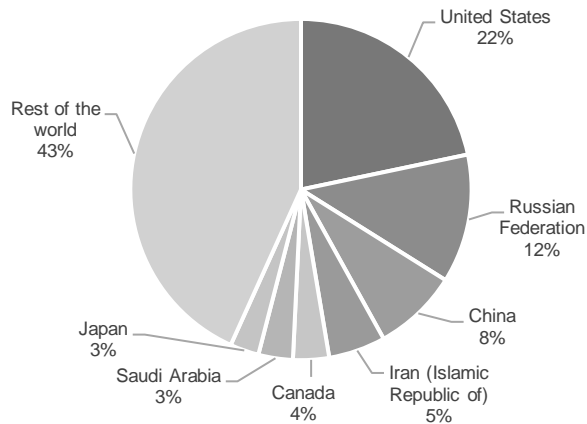


Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2016	143,196,054	42,444,251	42,877,643	2,302	-990,070	143,750,431	19,259
	2017	148,622,411	45,892,235	46,746,305	4,880	390,700	147,372,761	19,525
	2018	154,066,401	46,391,601	46,024,570	5,643	-789,962	155,217,751	20,340
	2019	162,030,993	47,971,887	48,948,191	10,696	1,709,938	159,334,056	20,657
Africa	2016	8,442,037	680,453	3,638,868	..	..	5,483,622	4,525
	2017	9,119,012	636,010	3,971,997	..	2,888	5,780,137	4,650
	2018	9,114,044	595,423	3,863,894	..	2,068	5,843,505	4,584
	2019	9,621,511	377,463	3,729,506	..	1,366	6,268,103	4,796
Algeria	2016	3,705,161	..	2,105,807	..	..	1,599,354	39,440
	2017	3,784,257	..	2,107,290	..	2,888	1,674,079	40,447
	2018	3,815,473	..	2,006,499	..	2,068	1,806,906	42,789
	2019	3,525,508	..	1,669,162	..	1,366	1,854,980	43,086
Angola	2016	64,980	..	34,580	..	..	30,400	1,054
	2017	220,400	..	188,480	..	..	31,920	1,071
	2018	235,220	..	202,540	..	..	32,680	1,061
	2019	258,400	..	209,000	..	..	49,400	1,552
Benin	2016	..	76	..	..	..	76	7
	2017	..	1,526	..	..	..	1,526	137
	2018	..	750	..	..	..	750	65
	2019	..	2,194	..	..	..	2,194	186
Cameroon	2016	20,520	..	..	..	..	20,520	858
	2017	22,800	..	..	..	..	22,800	928
	2018	60,800	..	31,160	..	..	29,640	1,175
	2019	89,680	..	62,700	..	..	26,980	1,043
Congo	2016	22,868	..	..	..	..	22,868	4,591
	2017	24,045	..	..	..	..	24,045	4,705
	2018	27,316	..	..	..	..	27,316	5,209
	2019	38,328	..	..	..	..	38,328	7,124
Côte d'Ivoire	2016	97,045	..	..	..	..	97,045	4,074
	2017	87,679	..	..	..	..	87,679	3,588
	2018	79,833	..	..	..	..	79,833	3,185
	2019	86,558	..	..	..	..	86,558	3,366
Dem. Rep. of the Congo	2016	14	..	..	..	..	14	0
	2017	12	..	..	..	..	12	0
	2018	12	..	..	..	..	12	0
	2019	..	..	..	..	..	..	..
Egypt	2016	1,616,921	363,005	52,356	..	..	1,927,570	20,409
	2017	1,994,593	299,840	90,707	..	..	2,203,726	22,850
	2018	1,909,150	218,726	40,195	..	..	2,087,681	21,211
	2019	2,643,004	..	193,035	..	..	2,449,969	24,405
Equatorial Guinea	2016	307,313	..	196,433	..	..	110,880	91,246
	2017	321,430	..	196,432	..	..	124,998	99,047
	2018	302,441	..	214,952	..	..	87,489	66,838
	2019	243,285	..	182,582	..	..	60,704	44,767
Gabon	2016	20,773	..	..	..	..	20,773	10,346
	2017	18,360	..	..	..	..	18,360	8,892
	2018	17,872	..	..	..	..	17,872	8,433
	2019	18,685	..	..	..	..	18,685	8,600
Ghana	2016	24,765	4,223	..	..	..	28,988	1,018
	2017	35,607	12,358	..	..	..	47,965	1,647
	2018	41,224	27,470	..	..	..	68,693	2,308
	2019	58,367	25,073	..	..	..	83,440	2,743

Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea	2016	3	..	..	..	..	3	0
	2017	3	..	..	..	..	3	0
	2018	4	..	..	..	..	4	0
	2019	4	..	..	..	..	4	0
Libya	2016	591,678	..	182,400	..	..	409,278	63,042
	2017	543,752	..	174,800	..	..	368,952	56,066
	2018	527,439	..	171,000	..	..	356,439	53,371
	2019	539,207	..	216,600	..	..	322,607	47,600
Morocco	2016	2,836	45,198	..	..	..	48,034	1,347
	2017	2,870	44,819	..	..	..	47,689	1,320
	2018	3,069	39,927	..	..	..	42,996	1,175
	2019	3,491	37,215	..	..	..	40,705	1,099
Mozambique	2016	194,225	..	163,008	..	..	31,217	1,122
	2017	191,690	..	158,909	..	..	32,781	1,144
	2018	191,890	..	159,007	..	..	32,883	1,115
	2019	190,410	..	155,227	..	..	35,183	1,159
Nigeria	2016	1,603,600	..	903,640	..	..	699,960	3,764
	2017	1,713,800	..	1,054,880	..	..	658,920	3,452
	2018	1,736,600	..	1,038,540	..	..	698,060	3,564
	2019	1,754,840	..	1,041,200	..	..	713,640	3,551
Rwanda	2016	*1,700	..	..	..	..	*1,700	*146
	2017	*1,700	..	..	..	..	*1,700	*142
	2018	*1,900	..	..	..	..	*1,900	*154
	2019	*1,870	..	..	..	..	*1,870	*148
Senegal	2016	878	..	..	..	..	878	59
	2017	736	..	..	..	..	736	48
	2018	461	..	..	..	..	461	29
	2019	559	..	..	..	..	559	34
South Africa	2016	28,338	131,146	644	..	..	158,840	2,826
	2017	25,571	124,124	499	..	..	149,196	2,617
	2018	39,122	146,278	..	..	..	185,400	3,208
	2019	44,827	140,242	..	..	..	185,069	3,160
Togo	2016	..	*262	..	..	..	*262	*35
	2017	..	0	..	..	..	0	0
	2018	..	1,767	..	..	..	1,767	224
	2019	..	3,876	..	..	..	3,876	480
Tunisia	2016	106,061	136,543	..	..	..	242,604	21,462
	2017	99,519	153,343	..	..	..	252,862	22,116
	2018	95,274	160,505	..	..	..	255,779	22,116
	2019	86,422	168,864	..	..	..	255,286	21,829
United Rep. of Tanzania	2016	32,357	..	..	..	..	32,357	610
	2017	30,188	..	..	..	..	30,188	552
	2018	28,943	..	..	..	..	28,943	514
	2019	38,065	..	..	..	..	38,065	656
<b>America, North</b>	<b>2016</b>	<b>39,178,173</b>	<b>5,874,970</b>	<b>6,335,804</b>	<b>2</b>	<b>-490,113</b>	<b>39,207,451</b>	<b>68,463</b>
	<b>2017</b>	<b>39,928,156</b>	<b>6,031,457</b>	<b>7,398,633</b>	<b>1,482</b>	<b>-392,361</b>	<b>38,951,859</b>	<b>67,455</b>
	<b>2018</b>	<b>43,259,182</b>	<b>6,196,606</b>	<b>7,745,273</b>	<b>1,201</b>	<b>-341,873</b>	<b>42,051,187</b>	<b>72,239</b>
	<b>2019</b>	<b>47,373,399</b>	<b>6,048,788</b>	<b>8,786,941</b>	<b>1,596</b>	<b>462,334</b>	<b>44,171,316</b>	<b>75,288</b>
Barbados	2016	829	..	..	..	..	829	2,901
	2017	859	..	..	..	..	859	3,002
	2018	1,126	..	..	..	..	1,126	3,929
	2019	1,002	..	..	..	..	1,002	3,491



Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Bolivia (Plur. State of)	2016	805,891	..	619,873	..	..	186,018	16,862
	2017	781,424	..	593,964	..	..	187,460	16,748
	2018	729,113	..	539,064	..	..	190,049	16,740
	2019	639,675	..	459,443	..	..	180,231	15,654
Brazil	2016	888,729	454,181	..	..	..	1,342,910	6,514
	2017	996,545	415,166	..	..	..	1,411,711	6,792
	2018	940,384	410,360	..	..	..	1,350,744	6,448
	2019	962,178	379,714	..	..	..	1,341,892	6,358
Chile	2016	47,202	170,076	14,084	..	833	202,361	11,113
	2017	47,932	163,040	8,236	..	610	202,125	10,943
	2018	48,866	160,701	6,270	..	377	202,920	10,834
	2019	59,692	187,447	..	..	2,155	244,984	12,927
Colombia	2016	912,786	504	0	..	..	913,291	18,958
	2017	864,547	505	..	..	..	865,052	17,687
	2018	829,799	506	..	..	..	830,305	16,719
	2019	794,188	507	..	..	..	794,695	15,787
Ecuador	2016	33,658	..	..	..	..	33,658	2,041
	2017	31,263	..	..	..	..	31,263	1,862
	2018	27,626	..	..	..	..	27,626	1,617
	2019	24,668	..	..	..	..	24,668	1,420
Falkland Is. (Malvinas)	2016	..	4	..	..	..	4	1,426
	2017	..	4	..	..	..	4	1,378
	2018	..	4	..	..	..	4	1,254
	2019	..	4	..	..	..	4	1,224
Peru	2016	588,387	..	241,012	..	..	347,375	11,232
	2017	523,266	..	229,363	..	..	293,903	9,347
	2018	514,329	..	210,406	..	..	303,923	9,501
	2019	542,941	..	224,255	..	..	318,686	9,803
Suriname	2016	136	..	..	..	..	136	241
	2017	136	..	..	..	..	136	239
	2018	195	..	..	..	..	195	339
	2019	232	..	..	..	..	232	400
Uruguay	2016	..	2,171	..	..	..	2,171	634
	2017	..	2,451	..	..	..	2,451	713
	2018	..	2,311	..	..	..	2,311	670
	2019	..	3,384	..	..	..	3,384	978
Venezuela (Bolivar. Rep.)	2016	991,136	0	..	..	..	991,136	33,202
	2017	972,186	0	..	..	..	972,186	33,065
	2018	847,757	..	..	..	..	847,757	29,347
	2019	700,803	..	..	..	..	700,803	24,576
<b>Asia</b>	<b>2016</b>	<b>50,640,681</b>	<b>16,291,224</b>	<b>13,149,618</b>	..	<b>-103,729</b>	<b>53,886,017</b>	<b>12,037</b>
	<b>2017</b>	<b>51,740,760</b>	<b>17,936,711</b>	<b>13,545,261</b>	..	<b>107,786</b>	<b>56,024,425</b>	<b>12,397</b>
	<b>2018</b>	<b>53,190,702</b>	<b>19,495,331</b>	<b>13,963,706</b>	..	<b>54,822</b>	<b>58,667,505</b>	<b>12,864</b>
	<b>2019</b>	<b>54,890,440</b>	<b>20,087,778</b>	<b>14,090,378</b>	..	<b>-55,425</b>	<b>60,943,264</b>	<b>13,245</b>
Afghanistan	2016	6,450	..	..	..	..	6,450	182
	2017	6,091	..	..	..	..	6,091	168
	2018	5,978	..	..	..	..	5,978	161
	2019	5,022	..	..	..	..	5,022	132
Armenia	2016	..	86,065	..	..	-73	86,138	29,337
	2017	..	91,554	..	..	904	90,650	30,783
	2018	..	94,283	..	..	-796	95,079	32,211
	2019	..	98,638	..	..	-721	99,359	33,593

Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Azerbaijan	2016	731,110	11,656	314,398	..	-8,859	437,226	44,908
	2017	710,345	82,413	345,951	..	22,143	424,664	43,134
	2018	750,229	70,238	387,155	..	680	432,633	43,483
	2019	957,529	0	462,197	..	4,949	490,383	48,805
Bahrain	2016	552,332	..	..	..	-3	552,335	387,388
	2017	568,359	..	..	..	-636	568,995	380,834
	2018	577,458	..	..	..	1	577,457	367,938
	2019	673,471	..	..	..	..	673,471	410,362
Bangladesh	2016	1,075,390	..	..	..	-13,176	1,088,566	6,891
	2017	1,070,946	..	..	..	-19,967	1,090,912	6,832
	2018	1,070,345	..	..	..	-14,689	1,085,034	6,724
	2019	1,058,953	127,731	..	..	..	1,186,684	7,278
Brunei Darussalam	2016	422,384	..	315,089	..	-1,260	108,555	258,593
	2017	462,777	..	327,214	..	-3,125	138,688	326,724
	2018	452,350	..	307,980	..	1,567	142,803	332,905
	2019	426,639	..	304,995	..	247	121,396	280,169
China	2016	5,794,619	2,910,967	132,671	..	..	8,572,914	6,063
	2017	6,333,108	3,691,387	137,744	..	..	9,886,751	6,957
	2018	6,965,249	4,862,017	131,111	..	..	11,696,155	8,193
	2019	7,753,473	5,197,597	140,866	..	..	12,810,204	8,935
China, Hong Kong SAR	2016	..	126,743	..	..	..	126,743	17,497
	2017	..	126,387	..	..	..	126,387	17,298
	2018	..	123,197	..	..	..	123,197	16,712
	2019	..	127,799	..	..	..	127,799	17,186
China, Macao SAR	2016	..	370	..	..	-1	371	605
	2017	..	6,847	..	..	2	6,845	10,995
	2018	..	3,634	..	..	..	3,634	5,753
	2019	..	5,218	..	..	..	5,218	8,147
Georgia	2016	254	90,502	0	..	..	90,756	22,602
	2017	333	95,263	..	..	..	95,596	23,847
	2018	403	94,744	..	..	..	95,147	23,769
	2019	385	107,419	..	..	..	107,804	26,973
India	2016	1,228,788	717,628	..	..	..	1,946,416	1,470
	2017	1,257,639	765,392	..	..	..	2,023,031	1,511
	2018	1,282,737	1,121,464	..	..	..	2,404,201	1,777
	2019	*1,179,996	*1,401,333	..	..	..	*2,581,329	*1,889
Indonesia	2016	2,605,595	..	751,961	..	..	1,853,634	7,087
	2017	2,496,383	..	781,916	..	..	1,714,467	6,478
	2018	2,541,308	..	830,711	..	..	1,710,597	6,391
	2019	2,374,248	..	587,224	..	..	1,787,024	6,603
Iran (Islamic Rep. of)	2016	7,864,956	230,942	356,898	..	..	7,739,000	97,268
	2017	8,489,798	151,954	520,558	..	..	8,121,194	100,667
	2018	8,865,103	62,642	611,589	..	..	8,316,156	101,664
	2019	9,156,549	42,049	600,349	..	..	8,598,248	103,701
Iraq	2016	290,397	..	..	..	..	290,397	7,932
	2017	329,997	60,800	..	..	..	390,797	10,407
	2018	448,795	171,000	..	..	..	619,795	16,126
	2019	464,635	231,800	..	..	..	696,435	17,717
Israel	2016	307,025	11,885	..	..	..	318,910	39,328
	2017	324,522	17,167	2,410	..	..	339,279	41,155
	2018	335,461	27,969	..	..	..	363,431	43,361
	2019	336,263	28,994	..	..	..	365,257	42,874









Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Gibraltar	2016	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..
	2018	..	..	..	..	..	..	..
	2019	..	2,691	..	..	1,959	732	21,728
Greece	2016	446	161,072	..	..	-824	162,342	15,293
	2017	422	196,550	..	..	1,417	195,555	18,502
	2018	589	192,807	..	..	1,863	191,534	18,203
	2019	445	207,358	634	..	-1,672	208,840	19,940
Hungary	2016	66,468	336,120	41,533	..	-12,394	373,449	38,291
	2017	65,834	519,322	136,859	..	50,724	397,573	40,861
	2018	68,457	494,127	194,125	..	-16,643	385,102	39,671
	2019	62,010	724,785	271,148	..	121,663	393,984	40,681
Ireland	2016	115,739	79,082	..	..	-2,734	197,555	42,071
	2017	132,498	65,565	..	..	-2,557	200,621	42,207
	2018	127,802	80,961	..	..	..	208,763	43,324
	2019	99,654	112,418	..	..	..	212,072	43,435
Isle of Man	2016	..	4,768	..	..	..	4,768	57,242
	2017	..	4,748	..	..	..	4,748	56,787
	2018	..	4,642	..	..	..	4,642	55,214
	2019	..	5,454	..	..	..	5,454	64,476
Italy	2016	220,409	2,487,320	8,077	..	-2,210	2,701,862	44,514
	2017	211,346	2,653,666	10,385	..	-8,968	2,863,596	47,170
	2018	208,644	2,585,940	14,878	..	10,067	2,769,640	45,658
	2019	184,780	2,707,586	12,399	..	42,713	2,837,254	46,832
Latvia	2016	..	42,930	..	..	-8,860	51,790	26,233
	2017	..	47,111	..	..	919	46,192	23,675
	2018	..	53,750	..	..	-634	54,384	28,201
	2019	..	51,343	..	..	17	51,327	26,919
Liechtenstein	2016	..	1,012	..	..	..	1,012	26,865
	2017	..	1,061	..	..	..	1,061	28,073
	2018	..	986	..	..	..	986	25,990
	2019	..	998	..	..	..	998	26,255
Lithuania	2016	..	87,896	1,707	..	518	85,671	29,649
	2017	..	96,757	7,980	..	-608	89,385	31,414
	2018	..	88,715	7,001	..	-892	82,606	29,489
	2019	..	106,877	20,175	..	-30	86,732	31,429
Luxembourg	2016	218	32,988	..	..	..	33,206	57,324
	2017	248	32,245	..	..	..	32,492	54,894
	2018	231	31,803	..	..	..	32,034	53,014
	2019	144	31,822	..	..	..	31,966	51,916
Malta	2016	..	..	..	..	..	..	..
	2017	..	11,829	..	..	584	11,245	25,677
	2018	..	14,919	..	..	1,292	13,627	31,023
	2019	..	14,761	..	..	516	14,245	32,346
Netherlands	2016	1,776,159	1,538,076	1,996,314	49	-83,729	1,401,601	82,538
	2017	1,522,317	1,808,156	1,871,169	175	10,288	1,448,840	85,119
	2018	1,298,310	2,030,149	1,816,180	549	76,761	1,434,969	84,115
	2019	1,120,426	1,976,604	1,589,052	2,766	7,865	1,497,346	87,579
North Macedonia	2016	..	7,371	..	..	-1	7,372	3,543
	2017	..	9,487	..	..	7	9,480	4,553
	2018	..	8,749	..	..	5	8,744	4,198
	2019	..	10,218	..	..	-3	10,222	4,906



Table 27

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
United Kingdom	2016	1,683,913	1,896,723	412,112	..	-62,142	3,230,666	48,730
	2017	1,688,318	1,861,272	447,913	..	-42,376	3,144,053	47,118
	2018	1,644,438	1,861,490	298,401	..	23,456	3,184,069	47,423
	2019	1,599,954	1,864,485	314,994	..	20,785	3,128,659	46,330
<b>Oceania</b>	<b>2016</b>	<b>3,532,827</b>	<b>226,441</b>	<b>2,121,210</b>	..	<b>966</b>	<b>1,637,092</b>	<b>40,488</b>
	<b>2017</b>	<b>4,427,231</b>	<b>206,519</b>	<b>2,965,094</b>	..	<b>-3,122</b>	<b>1,671,778</b>	<b>40,770</b>
	<b>2018</b>	<b>4,991,684</b>	<b>186,515</b>	<b>3,475,905</b>	..	<b>-6,830</b>	<b>1,709,124</b>	<b>41,115</b>
	<b>2019</b>	<b>5,789,625</b>	<b>201,973</b>	<b>4,194,759</b>	..	<b>-669</b>	<b>1,797,508</b>	<b>42,669</b>
Australia	2016	3,216,042	226,441	2,018,675	..	..	1,423,808	58,683
	2017	4,106,757	206,519	2,857,996	..	..	1,455,280	59,195
	2018	4,707,645	186,515	3,379,860	..	..	1,514,300	60,820
	2019	5,486,750	201,973	4,093,912	..	..	1,594,811	63,278
New Zealand	2016	196,791	..	..	..	966	195,825	42,029
	2017	194,413	..	..	..	-3,122	197,535	42,011
	2018	172,251	..	..	..	-6,830	179,081	37,756
	2019	185,498	..	..	..	-669	186,167	38,922
Papua New Guinea	2016	119,994	..	102,535	..	..	17,459	2,111
	2017	126,061	..	107,098	..	..	18,963	2,247
	2018	111,788	..	96,045	..	..	15,743	1,829
	2019	*117,377	..	*100,847	..	..	*16,530	*1,884



Table 28

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2018**

Importers	Exporters							
	World	Algeria	Australia	Canada	Indonesia	Iran (Islamic Rep. of)	Kazakhstan	Malaysia
Argentina	324,728	3,040	..	..	..	..	..	..
Austria	503,400	..	..	..	..	..	..	..
Belarus	785,185	..	..	..	..	..	..	..
Belgium	755,632	..	..	..	..	..	..	..
Brazil	410,360	..	..	..	..	..	..	..
Canada	908,924	..	..	..	..	..	..	..
China	4,862,017	3,698	1,129,631	64	*120,525	..	191,500	312,816
Czechia	307,194	..	..	..	..	..	..	..
France	2,041,798	143,956	..	..	..	..	..	..
Germany	3,281,120	..	..	..	..	..	..	..
Hungary	494,127	..	..	..	..	..	..	..
India	1,121,464	12,387	90,446	..	..	..	..	14,440
Italy	2,585,940	684,669	..	..	..	..	..	..
Japan	4,406,588	..	1,527,586	..	260,353	..	..	544,857
Kazakhstan	387,839	..	..	..	..	..	..	..
Korea, Republic of	2,309,420	..	407,564	..	186,632	..	..	187,283
Malaysia	291,035	..	20,641	..	*118,453	..	..	..
Mexico	2,054,753	..	..	..	16,700	..	..	..
Netherlands	2,030,149	5,239	..	..	..	..	..	..
Poland	608,367	..	..	..	..	..	..	..
Portugal	236,115	62,981	..	..	..	..	..	..
Russian Federation	358,750	..	..	..	..	..	358,750	..
Singapore	416,980	..	121,615	..	*118,548	..	..	39,792
Slovakia	169,857	..	..	..	..	..	..	..
Spain	1,409,177	723,416	..	..	..	..	..	..
Thailand	588,243	..	8,228	..	9,500	..	..	26,790
Turkey	1,925,967	173,090	..	..	..	301,179	..	..
Ukraine	393,516	..	..	..	..	..	..	..
United Arab Emirates	871,551	13,110	3,839	..	..	..	..	..
United Kingdom	1,861,490	8,769	..	..	..	..	..	..
United States	3,105,277	..	..	3,022,199	..	..	..	..

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2018**

Exporters							
Netherlands	Nigeria	Norway	Qatar	Russian Federation	Trinidad and Tobago	Turkmenistan	United States
..	18,694	..	60,338	1,900	20,244	..	30,125
..	..	..	..	..	..	..	..
..	..	..	..	785,185	..	..	..
331,761	..	293,721	79,894	12,997	..	..	..
4,219	9,857	..	3,667	17,100	18,445	..	38,963
3,327	..	3,196	..	..	16,720	..	885,681
14,016	58,477	14,309	502,570	*58,901	19,665	1,287,542	98,895
..	..	1,522	..	305,672	..	..	..
198,580	136,143	789,088	57,202	409,786	..	..	6,672
..	..	95,922	..	1,680,697	..	..	..
..	..	..	..	469,421	..	..	..
12,871	149,826	3,678	602,779	21,020	19,130	..	62,999
51,031	3,391	120,364	248,978	1,251,487	..	..	24,546
..	57,601	3,455	530,194	349,353	..	..	154,738
..	..	..	..	183,601	..	..	..
6,865	27,900	6,536	743,049	90,948	9,436	..	253,018
..	..	..	..	..	..	..	..
..	140,825	..	..	..	27,383	..	1,854,197
..	..	952,394	..	566,882	..	..	20,023
69	..	13,493	90,364	373,635	..	..	3,325
..	95,948	3,345	27,471	..	..	..	19,912
..	..	..	..	..	..	..	..
4,511	..	..	19,680	..	2,508	..	4,021
..	..	..	..	169,857	..	..	..
54	165,483	128,917	135,672	35,138	87,270	..	12,090
..	46,191	..	97,541	2,911	18,853	..	..
..	82,230	3,381	114,169	905,629	15,937	..	17,007
..	..	..	..	..	..	..	..
5,744	3,040	..	702,136	..	..	..	3,977
108,345	3,068	1,355,792	114,118	60,064	24,130	..	47,544
..	3,350	..	..	..	72,987	..	..



Table 28

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2019**

Importers	Exporters							
	World	Algeria	Australia	Canada	Indonesia	Iran (Islamic Rep. of)	Kazakhstan	Malaysia
Argentina	226,780	..	..	..	..	..	..	..
Austria	547,204	..	..	..	..	..	..	..
Belarus	753,709	..	..	..	..	..	..	..
Belgium	894,306	..	..	..	..	..	..	..
Brazil	379,714	..	..	..	..	..	..	..
Canada	1,022,538	..	..	..	..	..	..	..
China	5,197,597	3,080	1,493,112	501	*99,673	..	203,397	389,648
Czechia	365,476	..	..	..	..	..	..	..
France	2,275,007	151,626	..	..	..	..	..	..
Germany	3,520,265	..	..	..	..	..	..	..
Hungary	724,785	..	..	..	..	..	..	..
India	1,401,333	11,746	70,671	..	..	..	..	22,085
Italy	2,707,586	509,230	..	..	..	..	..	..
Japan	4,185,466	..	1,639,762	..	184,305	..	..	543,767
Kazakhstan	647,078	..	..	..	..	..	..	..
Korea, Republic of	2,241,985	..	418,774	..	120,847	..	..	268,306
Malaysia	345,084	..	79,096	..	*69,795	..	..	..
Mexico	1,908,243	..	..	..	23,546	..	..	..
Netherlands	1,976,604	8,990	..	..	..	..	..	..
Poland	681,197	..	..	..	..	..	..	..
Portugal	245,615	18,163	..	..	..	..	..	..
Russian Federation	348,390	..	..	..	..	..	348,390	..
Singapore	424,860	494	109,158	..	*75,596	..	..	37,600
Slovakia	259,722	..	..	..	..	..	..	..
Spain	1,506,011	498,221	..	..	..	..	..	..
Thailand	582,542	..	35,740	..	13,463	..	..	64,275
Turkey	1,731,656	217,504	..	..	..	296,331	..	..
Ukraine	442,225	..	..	..	..	..	..	..
United Arab Emirates	878,129	..	7,500	..	..	..	..	..
United Kingdom	1,864,485	38,878	..	..	..	..	..	..
United States	2,949,767	..	..	2,889,099	..	..	..	..

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2019**

Exporters							
Netherlands	Nigeria	Norway	Qatar	Russian Federation	Trinidad and Tobago	Turkmenistan	United States
..	..	..	..	..	24,566	..	43,033
..	..	..	..	..	..	..	..
..	..	..	..	753,709	..	..	..
300,415	..	266,881	180,556	72,083	..	..	7,180
..	10,488	..	..	..	21,899	..	59,467
..	..	..	..	..	16,862	..	1,002,110
3,677	102,394	3,677	459,288	157,372	40,888	1,103,723	7,503
..	..	981	..	364,495	..	..	..
172,865	189,713	826,387	88,611	444,079	..	..	72,133
..	..	102,913	..	1,803,194	..	..	..
..	..	..	..	688,546	..	..	..
..	*52,496	..	531,866	10,756	7,694	..	100,189
65,521	6,627	233,957	249,558	1,274,422	53,827	..	61,475
..	58,128	..	470,178	345,513	..	..	227,961
..	..	..	..	493,928	..	..	..
..	34,208	..	619,583	130,340	3,846	..	291,932
..	3,140	..	..	..	..	..	4,050
..	140,179	..	..	..	57,866	..	1,640,344
..	20,429	827,841	4,944	540,220	3,119	..	77,051
15	..	8,075	90,285	368,961	..	..	36,933
3,580	131,413	..	26,490	3,931	4,849	..	52,560
..	..	..	..	..	..	..	..
..	3,040	..	5,320	..	6,080	..	34,433
..	..	..	..	259,722	..	..	..
..	172,596	98,104	172,475	128,226	113,077	..	166,055
..	..	..	97,650	3,412	2,402	..	7,267
..	92,691	3,356	94,174	582,050	7,093	..	46,688
..	..	..	..	..	..	..	..
..	6,574	..	698,969	6,658	3,534	..	22,518
66,028	13,391	1,078,491	351,612	123,990	32,800	..	117,535
..	3,694	..	..	..	51,977	..	..



Production of manufactured and recovered gases - by type

Terajoules

Table Notes

**Production** refers to gasworks gas, coke oven gas, blast furnace gas and other recovered gases.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 71: Production of manufactured and recovered gases by region, 1990-2019

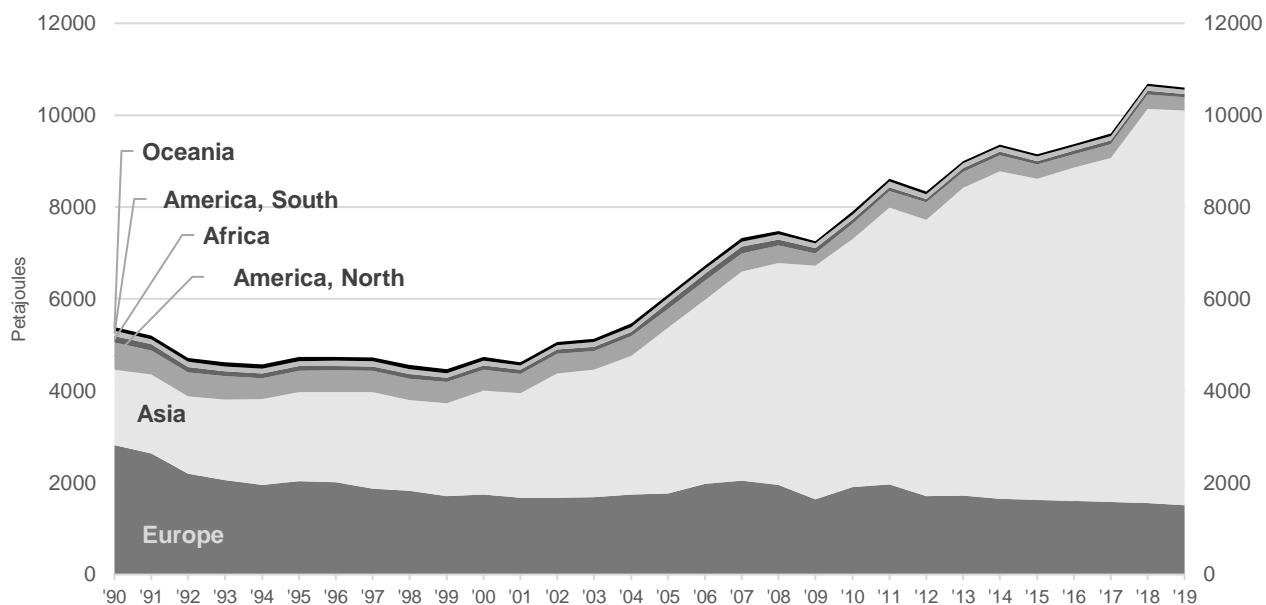


Figure 72: World production of manufactured and recovered gases by type, 2019

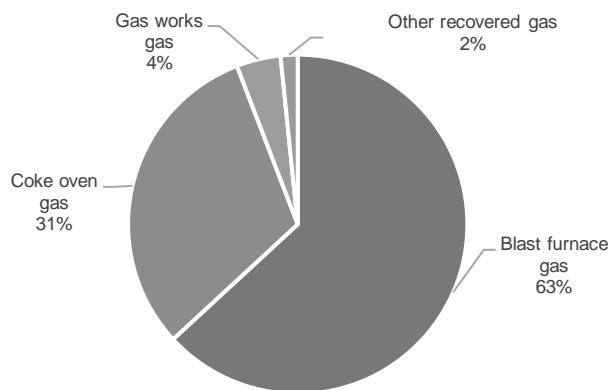


Table 29

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
<b>World</b>	<b>2016</b>	<b>9,370,888</b>	<b>621,825</b>	<b>3,109,654</b>	<b>5,448,922</b>	<b>190,487</b>
	<b>2017</b>	<b>9,599,869</b>	<b>652,609</b>	<b>3,135,159</b>	<b>5,628,827</b>	<b>183,273</b>
	<b>2018</b>	<b>10,684,376</b>	<b>703,593</b>	<b>3,231,004</b>	<b>6,577,451</b>	<b>172,327</b>
	<b>2019</b>	<b>10,600,474</b>	<b>446,909</b>	<b>3,288,716</b>	<b>6,692,812</b>	<b>172,037</b>
<b>Africa</b>	<b>2016</b>	<b>75,468</b>	<b>23,460</b>	<b>24,595</b>	<b>27,413</b>	<b>..</b>
	<b>2017</b>	<b>76,445</b>	<b>21,688</b>	<b>24,045</b>	<b>30,712</b>	<b>..</b>
	<b>2018</b>	<b>80,764</b>	<b>22,812</b>	<b>25,439</b>	<b>32,513</b>	<b>..</b>
	<b>2019</b>	<b>67,711</b>	<b>20,600</b>	<b>21,181</b>	<b>25,930</b>	<b>..</b>
Algeria	2016	0	..	..	0	..
	2017	3,614	..	..	3,614	..
	2018	5,844	..	..	5,844	..
	2019	5,108	..	..	5,108	..
Egypt	2016	*4,534	82	..	*4,452	..
	2017	4,268	131	..	4,137	..
	2018	4,764	88	..	4,676	..
	2019	2,825	128	..	2,697	..
South Africa	2016	69,596	23,378	23,257	22,961	..
	2017	67,775	21,557	23,257	22,961	..
	2018	69,208	22,724	24,491	21,993	..
	2019	58,780	20,472	20,183	18,125	..
Zimbabwe	2016	1,338	..	1,338	..	..
	2017	788	..	788	..	..
	2018	948	..	948	..	..
	2019	997	..	997	..	..
<b>America, North</b>	<b>2016</b>	<b>295,773</b>	<b>56,271</b>	<b>93,099</b>	<b>146,403</b>	<b>..</b>
	<b>2017</b>	<b>298,124</b>	<b>61,479</b>	<b>92,773</b>	<b>143,872</b>	<b>..</b>
	<b>2018</b>	<b>312,440</b>	<b>63,886</b>	<b>99,324</b>	<b>149,230</b>	<b>..</b>
	<b>2019</b>	<b>291,580</b>	<b>55,792</b>	<b>94,485</b>	<b>141,303</b>	<b>..</b>
Canada	2016	43,624	..	22,037	21,587	..
	2017	43,992	..	22,057	21,935	..
	2018	46,322	..	24,703	21,619	..
	2019	43,928	..	23,888	20,040	..
Cuba	2016	3,707	3,696	..	11	..
	2017	3,473	3,467	..	6	..
	2018	3,333	3,319	..	14	..
	2019	3,275	3,261	..	14	..
Mexico	2016	31,637	..	11,252	20,385	..
	2017	30,293	..	10,653	19,640	..
	2018	27,357	..	9,707	17,650	..
	2019	23,981	..	8,158	15,823	..
United States	2016	216,805	52,575	59,810	104,420	..
	2017	220,366	58,012	60,063	102,291	..
	2018	235,428	60,567	64,914	109,947	..
	2019	220,396	52,531	62,439	105,426	..
<b>America, South</b>	<b>2016</b>	<b>89,678</b>	<b>213</b>	<b>77,860</b>	<b>11,605</b>	<b>..</b>
	<b>2017</b>	<b>98,947</b>	<b>79</b>	<b>86,859</b>	<b>12,009</b>	<b>..</b>
	<b>2018</b>	<b>102,649</b>	<b>73</b>	<b>90,051</b>	<b>12,525</b>	<b>..</b>
	<b>2019</b>	<b>92,656</b>	<b>..</b>	<b>81,469</b>	<b>11,187</b>	<b>..</b>
Argentina	2016	11,403	..	3,875	7,528	..
	2017	12,411	..	4,312	8,099	..
	2018	13,374	..	4,788	8,586	..
	2019	10,470	..	3,276	7,194	..

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Brazil	2016	68,715	..	68,715	..	..
	2017	77,783	..	77,783	..	..
	2018	80,329	..	80,329	..	..
	2019	73,223	..	73,223	..	..
Chile	2016	6,980	213	3,820	2,947	..
	2017	6,425	79	3,456	2,890	..
	2018	6,727	73	3,745	2,909	..
	2019	6,944	..	3,772	3,172	..
Colombia	2016	2,580	..	1,450	1,130	..
	2017	2,328	..	1,308	1,020	..
	2018	2,220	..	1,189	1,031	..
	2019	2,019	..	1,198	821	..
<b>Asia</b>	<b>2016</b>	<b>7,259,172</b>	<b>521,466</b>	<b>2,195,243</b>	<b>4,436,008</b>	<b>106,456</b>
	<b>2017</b>	<b>7,491,244</b>	<b>550,352</b>	<b>2,233,550</b>	<b>4,605,547</b>	<b>101,796</b>
	<b>2018</b>	<b>8,578,984</b>	<b>599,543</b>	<b>2,356,079</b>	<b>5,522,744</b>	<b>100,618</b>
	<b>2019</b>	<b>8,592,510</b>	<b>354,562</b>	<b>2,448,030</b>	<b>5,688,877</b>	<b>101,042</b>
China	2016	5,194,695	491,659	1,465,528	3,237,508	..
	2017	5,406,600	520,243	1,484,702	3,401,656	..
	2018	6,443,917	568,826	1,586,583	4,288,508	..
	2019	6,457,947	324,677	1,680,918	4,452,352	..
China, Hong Kong SAR	2016	28,814	28,814	..	..	..
	2017	29,049	29,049	..	..	..
	2018	29,550	29,550	..	..	..
	2019	28,712	28,712	..	..	..
India	2016	*535,132	*993	*165,364	*368,775	..
	2017	567,891	*1,060	*181,607	385,224	..
	2018	*620,684	*1,167	*193,217	*426,300	..
	2019	*639,222	*1,173	203,658	*434,391	..
Iran (Islamic Rep. of)	2016	26,853	..	8,508	18,345	..
	2017	24,809	..	9,782	15,027	..
	2018	26,319	..	10,414	15,905	..
	2019	24,847	..	8,674	16,173	..
Japan	2016	804,534	..	299,255	438,870	66,409
	2017	787,616	..	295,706	429,842	62,068
	2018	779,347	..	295,366	423,160	60,820
	2019	765,977	..	294,493	412,431	59,053
Kazakhstan	2016	40,578	..	16,909	23,669	..
	2017	43,921	..	17,490	26,431	..
	2018	39,530	..	16,668	22,862	..
	2019	35,479	..	14,455	21,025	..
Korea, Dem.Ppl's.Rep.	2016	1,838	..	..	1,838	..
	2017	1,645	..	..	1,645	..
	2018	1,222	..	..	1,222	..
	2019	1,026	..	..	1,026	..
Korea, Republic of	2016	394,580	..	147,900	217,967	28,713
	2017	400,458	..	153,969	217,678	28,812
	2018	401,861	..	157,103	215,927	28,831
	2019	407,029	..	149,818	225,779	31,432
Other Asia	2016	143,488	..	59,839	72,315	11,334
	2017	138,256	..	57,186	70,153	10,917
	2018	144,239	..	60,470	72,802	10,967
	2019	143,456	..	60,468	72,432	10,556

Table 29

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Philippines	2016	3,790	..	..	3,790	..
	2017	3,313	..	..	3,313	..
	2018	3,466	..	..	3,466	..
	2019	3,010	..	..	3,010	..
Syrian Arab Republic	2016	3	..	..	3	..
	2017	3	..	..	3	..
	2018	3	..	..	3	..
	2019	3	..	..	3	..
Thailand	2016	496	..	..	496	..
	2017	622	..	..	622	..
	2018	589	..	..	589	..
	2019	390	..	..	390	..
Turkey	2016	84,371	..	31,939	52,432	..
	2017	87,062	..	33,109	53,953	..
	2018	88,258	..	36,258	52,000	..
	2019	85,411	..	35,546	49,865	..
<b>Europe</b>	<b>2016</b>	<b>1,600,374</b>	<b>20,377</b>	<b>693,594</b>	<b>802,636</b>	<b>83,767</b>
	<b>2017</b>	<b>1,582,625</b>	<b>18,967</b>	<b>672,041</b>	<b>810,439</b>	<b>81,178</b>
	<b>2018</b>	<b>1,560,110</b>	<b>17,241</b>	<b>635,096</b>	<b>836,361</b>	<b>71,412</b>
	<b>2019</b>	<b>1,507,224</b>	<b>15,917</b>	<b>618,677</b>	<b>801,937</b>	<b>70,692</b>
Austria	2016	42,585	..	9,954	28,812	3,819
	2017	45,236	..	10,154	30,765	4,317
	2018	38,954	..	10,321	25,239	3,393
	2019	39,970	..	8,629	27,616	3,725
Belgium	2016	37,373	..	10,320	23,522	3,531
	2017	37,903	..	10,062	24,077	3,765
	2018	37,292	..	10,020	23,607	3,665
	2019	37,978	..	9,906	24,319	3,754
Bosnia and Herzegovina	2016	11,247	..	6,867	4,380	..
	2017	10,724	..	6,527	4,197	..
	2018	12,246	..	7,632	4,614	..
	2019	12,060	..	6,978	5,082	..
Czechia	2016	61,160	16,933	17,859	20,643	5,725
	2017	59,003	15,177	20,320	18,064	5,442
	2018	60,382	13,932	20,673	19,796	5,982
	2019	55,016	12,670	18,950	17,571	5,824
Estonia	2016	12,733	3,430	9,303	..	..
	2017	15,028	3,790	11,238	..	..
	2018	14,186	3,309	10,877	..	..
	2019	14,829	3,247	11,582	..	..
Finland	2016	24,076	..	8,731	11,529	3,816
	2017	22,678	..	8,197	11,071	3,410
	2018	23,649	..	8,277	11,526	3,846
	2019	20,213	..	7,719	8,413	4,081
France	2016	66,458	..	23,920	35,565	6,973
	2017	87,583	..	28,143	50,502	8,938
	2018	86,218	..	..	86,218	..
	2019	81,667	..	..	81,667	..
Germany	2016	259,995	..	77,811	159,763	22,421
	2017	254,151	..	68,044	162,818	23,289
	2018	250,530	..	64,646	160,885	24,999
	2019	241,116	..	64,151	151,471	25,494

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Hungary	2016	13,259	..	8,198	5,061	..
	2017	16,996	..	9,126	7,870	..
	2018	17,669	..	9,109	8,560	..
	2019	15,242	..	8,162	7,080	..
Italy	2016	43,550	..	14,439	23,709	5,402
	2017	35,981	..	15,132	16,990	3,859
	2018	34,808	..	15,150	18,007	1,651
	2019	33,246	..	14,586	17,071	1,590
Netherlands	2016	53,103	..	17,472	35,631	..
	2017	54,912	..	17,917	36,995	..
	2018	54,663	..	18,118	36,545	..
	2019	51,719	..	17,657	34,062	..
Norway	2016	3,222	..	..	3,222	..
	2017	4,012	..	..	4,012	..
	2018	4,197	..	..	4,197	..
	2019	3,611	..	..	3,611	..
Poland	2016	108,838	0	78,303	25,158	5,377
	2017	107,602	..	76,852	27,164	3,585
	2018	107,821	..	78,254	26,377	3,191
	2019	102,427	..	74,779	24,327	3,322
Romania	2016	9,990	..	..	9,990	..
	2017	9,408	..	..	9,408	..
	2018	10,137	..	..	10,137	..
	2019	10,354	..	..	10,354	..
Russian Federation	2016	487,419	..	270,873	216,546	..
	2017	490,758	..	262,407	228,351	..
	2018	481,163	..	261,597	219,566	..
	2019	477,585	..	260,383	217,202	..
Serbia	2016	9,549	..	..	9,549	..
	2017	10,609	..	..	10,609	..
	2018	12,281	..	..	12,281	..
	2019	12,231	..	..	12,231	..
Slovakia	2016	39,159	..	13,679	21,068	4,412
	2017	39,567	..	12,688	22,124	4,755
	2018	40,606	..	13,427	22,696	4,483
	2019	31,861	..	11,619	17,065	3,177
Spain	2016	34,728	14	12,463	22,251	..
	2017	30,325	..	10,927	19,398	..
	2018	30,055	..	10,510	19,545	..
	2019	26,696	..	9,424	17,272	..
Sweden	2016	23,880	..	9,138	12,791	1,951
	2017	23,856	..	8,890	12,974	1,992
	2018	21,732	..	7,692	12,149	1,891
	2019	22,895	..	8,096	13,448	1,351
Ukraine	2016	207,944	..	90,483	97,121	20,340
	2017	177,103	..	81,374	77,902	17,827
	2018	175,545	..	75,559	81,674	18,312
	2019	168,849	..	72,116	78,358	18,375
United Kingdom	2016	50,106	..	13,781	36,325	..
	2017	49,190	..	14,042	35,148	..
	2018	45,975	..	13,234	32,741	..
	2019	47,658	..	13,941	33,717	..



Table 29

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
<b>Oceania</b>	<b>2016</b>	<b>50,423</b>	<b>39</b>	<b>25,263</b>	<b>24,857</b>	<b>264</b>
	<b>2017</b>	<b>52,484</b>	<b>45</b>	<b>25,891</b>	<b>26,249</b>	<b>299</b>
	<b>2018</b>	<b>49,429</b>	<b>38</b>	<b>25,016</b>	<b>24,078</b>	<b>296</b>
	<b>2019</b>	<b>48,793</b>	<b>38</b>	<b>24,874</b>	<b>23,578</b>	<b>303</b>
Australia	2016	39,302	39	21,127	18,136	..
	2017	40,718	45	21,506	19,167	..
	2018	38,161	38	20,687	17,436	..
	2019	35,774	38	19,023	16,713	..
New Zealand	2016	11,121	..	4,136	6,721	264
	2017	11,766	..	4,385	7,082	299
	2018	11,268	..	4,329	6,642	296
	2019	13,019	..	5,851	6,865	303





## Net installed capacity of electric plants - by type

Megawatts

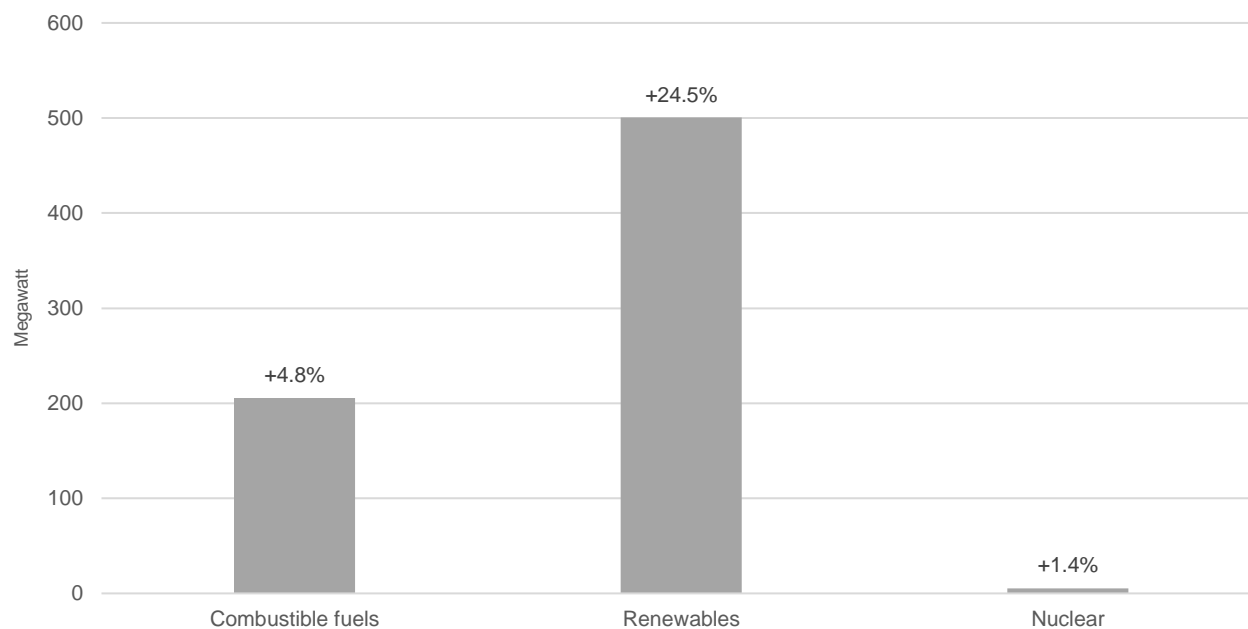
### Table Notes

Electricity capacity broken down by source, and main activity producers against autoproducers. For total producers, **Other** refers to geothermal, tide, wave, marine and other non-specified net installed capacity. For autoproducers, **Other** refers to nuclear (if any), wind, solar, geothermal, tide, wave, marine and other non-specified net installed capacity. For main activity producers, **Other** refers to wind, solar, geothermal, tide, wave, marine and other non-specified net installed capacity.

For Austria data are given in gross maximum capacity.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 73: Change in net installed capacity of electricity generating plants\* by source, 2016-2019**



\* Renewable includes capacity from hydro, wind, solar and other sources

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2016	6,686,743	4,243,796	1,240,405	399,333	473,794	301,640	27,776
	2017	6,889,456	4,275,751	1,265,367	398,782	519,720	399,730	30,106
	2018	7,173,361	4,393,172	1,285,209	406,291	567,648	486,810	34,231
	2019	7,398,116	4,449,334	1,302,836	404,823	624,429	581,338	35,356
Africa	2016	195,079	152,367	32,630	1,860	4,660	2,880	682
	2017	210,042	163,918	35,159	1,940	4,790	3,545	689
	2018	225,252	176,091	36,204	1,940	5,474	4,879	664
	2019	234,211	183,064	36,528	1,940	5,729	6,040	911
Algeria	2016	19,031	18,549	228	..	10	244	..
	2017	19,555	18,892	228	..	10	425	..
	2018	21,166	20,480	228	..	10	448	..
	2019	*21,653	*20,967	228	..	10	448	..
Angola	2016	*2,886	*1,284	*1,589	..	..	13	..
	2017	*4,422	*2,067	*2,342	..	..	13	..
	2018	5,010	*2,298	2,699	..	..	13	..
	2019	*6,156	*3,444	2,699	..	..	13	..
Benin	2016	*381	*312	*66	..	..	3	..
	2017	*381	*312	*66	..	..	3	..
	2018	*381	*312	*66	..	..	3	..
	2019	*508	*439	*66	..	..	3	..
Botswana	2016	621	620	..	..	..	1	..
	2017	753	752	..	..	..	1	..
	2018	796	795	..	..	..	1	..
	2019	761	760	..	..	..	1	..
Burkina Faso	2016	325	293	32	..	..	..	..
	2017	329	293	32	..	..	*4	..
	2018	349	293	32	..	..	*24	..
	2019	390	295	32	..	..	62	..
Burundi	2016	64	*9	51	..	..	4	..
	2017	70	*17	48	..	..	5	..
	2018	87	34	48	..	..	5	..
	2019	87	*34	48	..	..	5	..
Cabo Verde	2016	*169	*136	..	..	26	8	..
	2017	*200	*166	..	..	27	8	..
	2018	*209	*169	..	..	*31	*9	..
	2019	*221	*181	..	..	*31	*9	..
Cameroon	2016	*1,944	*1,200	*732	..	..	*12	..
	2017	2,054	*1,265	777	..	..	*12	..
	2018	1,669	*918	732	..	..	*19	..
	2019	1,669	*918	732	..	..	*19	..
Central African Rep.	2016	*44	*19	*25	..	..	0	..
	2017	*44	*19	*25	..	..	0	..
	2018	*44	*19	*25	..	..	0	..
	2019	*44	*19	*25	..	..	0	..
Chad	2016	*86	*86	..	..	..	..	..
	2017	*86	*86	..	..	..	..	..
	2018	*86	*86	..	..	..	..	..
	2019	*86	*86	..	..	..	..	..
Comoros	2016	*27	*26	1	..	..	..	..
	2017	*35	*34	1	..	..	..	..
	2018	*35	*34	1	..	..	..	..
	2019	*35	*34	1	..	..	..	..
Congo	2016	*600	*391	*209	..	..	0	..
	2017	*606	*391	214	..	..	1	..
	2018	*606	*391	214	..	..	1	..
	2019	*606	*391	214	..	..	1	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
601,109	472,776	19,421	108,912	6,085,635	3,771,020	1,220,984	399,333	694,298
572,201	430,580	19,243	122,378	6,317,256	3,845,171	1,246,125	398,782	827,178
630,428	471,145	21,137	138,145	6,542,933	3,922,027	1,264,071	406,291	950,544
674,660	494,809	21,295	158,556	6,723,456	3,954,525	1,281,541	404,823	1,082,567
26,267	21,188	700	4,379	168,813	131,179	31,930	1,860	3,844
24,677	19,299	683	4,694	185,365	144,619	34,476	1,940	4,331
28,006	21,642	705	5,659	197,246	154,449	35,499	1,940	5,358
28,160	22,148	750	5,261	206,052	160,915	35,778	1,940	7,418
4,314	4,314	..	..	14,717	14,235	228	..	254
4,314	4,314	..	..	15,241	14,578	228	..	435
6,079	6,079	..	..	15,087	14,401	228	..	458
*6,567	*6,567	..	..	*15,086	*14,400	228	..	458
*217	*217	..	..	*2,669	*1,067	*1,589	..	13
*250	*250	..	..	*4,172	*1,817	*2,342	..	13
*250	*250	..	..	4,760	*2,048	2,699	..	13
*300	*300	..	..	*5,856	*3,144	2,699	..	13
*45	*45	..	..	*336	*267	*66	..	3
*45	*45	..	..	*336	*267	*66	..	3
*45	*45	..	..	*336	*267	*66	..	3
*45	*45	..	..	*463	*394	*66	..	3
20	20	..	..	601	600	..	..	1
20	20	..	..	733	732	..	..	1
..	..	..	..	796	795	..	..	1
..	..	..	..	761	760	..	..	1
..	..	..	..	325	293	32	..	..
..	..	..	..	329	293	32	..	*4
..	..	..	..	349	293	32	..	*24
..	..	..	..	390	295	32	..	62
*2	*2	..	..	62	*7	51	..	4
*3	*3	..	..	67	*14	48	..	5
*3	*3	..	..	84	31	48	..	5
*3	*3	..	..	84	*31	48	..	5
*1	*1	..	..	*168	*135	..	..	33
*1	*1	..	..	*200	*165	..	..	35
*1	*1	..	..	*209	*168	..	..	*40
*1	*1	..	..	*221	*181	..	..	*40
*650	*650	..	..	*1,294	*550	*732	..	*12
*650	*650	..	..	1,404	615	777	..	*12
*650	*650	..	..	1,019	268	732	..	*19
*650	*650	..	..	1,019	268	732	..	*19
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*86	*86	..	..	..
..	..	..	..	*86	*86	..	..	..
..	..	..	..	*86	*86	..	..	..
..	..	..	..	*86	*86	..	..	..
1	..	1	..	*26	*26	..	..	..
1	..	1	..	*34	*34	..	..	..
1	..	1	..	*34	*34	..	..	..
1	..	1	..	*34	*34	..	..	..
*350	*350	..	..	*250	*41	*209	..	0
*350	*350	..	..	256	*41	214	..	1
*350	*350	..	..	256	*41	214	..	1
*350	*350	..	..	256	*41	214	..	1

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2016	1,914	1,305	604	..	..	5	..
	2017	2,203	1,316	879	..	..	8	..
	2018	2,192	1,305	879	..	..	8	..
	2019	2,233	1,346	879	..	..	8	..
Dem. Rep. of the Congo	2016	*2,677	*135	*2,542	..	..	..	..
	2017	3,120	122	2,998	..	..	..	..
	2018	3,179	155	3,005	..	..	19	..
	2019	*3,190	*155	*3,015	..	..	20	..
Djibouti	2016	130	130	..	..	..	..	..
	2017	130	130	..	..	..	..	..
	2018	*130	*130	..	..	..	..	..
	2019	*130	*130	..	..	..	..	..
Egypt	2016	40,905	37,218	2,800	..	747	140	..
	2017	47,056	43,369	2,800	..	747	140	..
	2018	56,574	52,585	2,832	..	967	190	..
	2019	58,353	53,394	2,832	..	1,127	1,000	..
Equatorial Guinea	2016	349	222	127	..	..	..	..
	2017	554	222	327	..	..	5	..
	2018	*554	*222	*327	..	..	*5	..
	2019	*554	*222	*327	..	..	*5	..
Eritrea	2016	*161	*159	..	..	1	*1	..
	2017	*216	*205	..	..	1	*10	..
	2018	*226	*205	..	..	1	*20	..
	2019	*226	*205	..	..	1	*20	..
Eswatini	2016	*188	*115	73	..	..	..	..
	2017	*188	*115	*73	..	..	0	..
	2018	192	119	*73	..	..	0	..
	2019	193	119	*73	..	..	1	..
Ethiopia	2016	4,289	136	3,808	..	324	14	7
	2017	4,298	141	3,814	..	324	12	7
	2018	4,297	141	3,814	..	324	11	7
	2019	4,300	141	3,817	..	324	11	7
Gabon	2016	523	352	170	..	..	*1	..
	2017	533	359	173	..	..	*1	..
	2018	751	418	332	..	..	*1	..
	2019	*784	*451	332	..	..	*1	..
Gambia	2016	*121	*117	..	..	1	2	..
	2017	*121	*118	..	..	1	2	..
	2018	*126	*123	..	..	1	*2	..
	2019	*137	*134	..	..	1	*2	..
Ghana	2016	4,005	2,402	1,580	..	..	23	0
	2017	4,609	3,006	1,580	..	..	23	0
	2018	5,099	3,476	1,580	..	..	43	0
	2019	5,382	3,759	1,580	..	..	43	0
Guinea	2016	593	226	367	..	..	..	..
	2017	610	*243	367	..	..	..	..
	2018	615	*248	367	..	..	..	..
	2019	621	*254	367	..	..	..	..
Guinea-Bissau	2016	*27	*27	..	..	..	..	..
	2017	*27	*26	..	..	..	1	..
	2018	*27	*26	..	..	..	1	..
	2019	*28	*27	..	..	..	1	..
Kenya	2016	2,255	786	798	..	26	1	644
	2017	2,271	766	826	..	26	1	652
	2018	3,043	1,209	821	..	336	51	627
	2019	3,155	1,113	826	..	336	51	828

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*23	*23	..	..	1,891	1,282	604	..	5
*23	*23	..	..	2,180	1,293	879	..	8
*23	*23	..	..	2,169	1,282	879	..	8
*23	*23	..	..	2,210	1,323	879	..	8
*567	*25	*542	..	*2,110	*110	*2,000	..	..
581	93	488	..	2,539	29	2,510	..	..
601	123	478	..	2,578	32	2,527	..	19
611	*123	488	..	*2,579	*32	*2,527	..	20
..	..	..	..	130	130	..	..	..
..	..	..	..	130	130	..	..	..
..	..	..	..	*130	*130	..	..	..
..	..	..	..	*130	*130	..	..	..
2,048	2,048	..	..	38,857	35,170	2,800	..	887
2,048	2,048	..	..	45,008	41,321	2,800	..	887
2,048	2,048	..	..	54,526	50,537	2,832	..	1,157
2,048	2,048	..	..	56,305	51,346	2,832	..	2,127
..	..	..	..	349	222	127	..	..
..	..	..	..	554	222	327	..	5
..	..	..	..	*554	*222	*327	..	*5
..	..	..	..	*554	*222	*327	..	*5
*10	*10	..	..	*151	*149	..	..	2
*10	*10	..	..	*206	*195	..	..	*11
*10	*10	..	..	*216	*195	..	..	*21
*10	*10	..	..	*216	*195	..	..	*21
*110	*106	*4	..	79	10	69	..	..
*110	*106	*4	0	*79	*10	*69	..	..
113	109	*4	0	*79	*10	*69	..	..
113	109	*4	0	*79	*10	*69	..	1
*37	*37	..	..	4,252	99	3,808	..	345
*37	*37	..	..	4,261	104	3,814	..	343
*37	*37	..	..	4,260	104	3,814	..	342
*37	*37	..	..	4,263	104	3,817	..	342
*71	*70	..	*1	452	282	170	..	..
*73	*70	*2	*1	460	289	171	..	..
88	85	*2	*1	663	333	330	..	..
*88	*85	*2	*1	*696	*366	330	..	..
*35	*35	..	..	*86	*82	..	..	3
*36	*36	..	..	*86	*82	..	..	3
*36	*36	..	..	*90	*87	..	..	*3
*36	*36	..	..	*101	*98	..	..	*3
*210	*210	..	..	3,795	2,192	1,580	..	23
*210	*210	..	..	4,399	2,796	1,580	..	23
*210	*210	..	..	4,889	3,266	1,580	..	43
*210	*210	..	..	5,172	3,549	1,580	..	43
150	150	..	..	444	77	367	..	..
*150	*150	..	..	460	*93	367	..	..
*148	*148	..	..	467	*100	367	..	..
*150	*150	..	..	471	*104	367	..	..
*5	*5	..	..	*21	*21	..	..	..
*6	*6	..	..	*22	*21	..	..	1
*5	*5	..	..	*22	*21	..	..	1
*5	*5	..	..	*22	*21	..	..	1
..	..	..	..	2,255	786	798	..	671
..	..	..	..	2,271	766	826	..	679
364	364	..	..	2,679	845	821	..	1,014
364	364	..	..	2,791	749	826	..	1,216



Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2016	81	*1	80	..	..	0	..
	2017	75	*1	74	..	..	0	..
	2018	75	1	74	..	..	0	..
	2019	75	1	74	..	..	0	..
Liberia	2016	*107	*98	*9	..	..	0	..
	2017	*111	*100	*9	..	..	*2	..
	2018	*195	*100	*92	..	..	*3	..
	2019	*195	*100	*92	..	..	*3	..
Libya	2016	10,249	10,244	..	..	..	5	..
	2017	10,243	10,238	..	..	..	5	..
	2018	10,516	10,511	..	..	..	5	..
	2019	10,516	10,511	..	..	..	5	..
Madagascar	2016	536	366	159	..	0	11	..
	2017	675	496	166	..	0	13	..
	2018	658	473	165	..	0	20	..
	2019	546	361	165	..	0	20	..
Malawi	2016	579	*211	356	..	..	12	..
	2017	586	*211	356	..	..	19	..
	2018	601	*211	367	..	..	23	..
	2019	603	*211	369	..	..	23	..
Mali	2016	*941	*490	*450	..	..	*1	..
	2017	*1,012	*560	*450	..	..	*2	..
	2018	*1,012	*560	*450	..	..	*2	..
	2019	*1,015	*560	*450	..	..	*5	..
Mauritania	2016	*461	*392	..	..	34	35	..
	2017	*506	*421	..	..	35	50	..
	2018	*570	*449	..	..	34	87	..
	2019	*608	*486	..	..	34	88	..
Mauritius	2016	847	749	61	..	11	27	..
	2017	836	736	60	..	11	29	..
	2018	873	735	60	..	11	67	..
	2019	844	684	60	..	11	89	..
Morocco	2016	11,561	8,732	1,770	..	898	161	..
	2017	12,120	9,128	1,770	..	1,017	205	..
	2018	12,350	9,151	1,770	..	1,168	261	..
	2019	13,977	10,276	1,770	..	1,220	711	..
Mozambique	2016	2,491	412	2,078	..	..	1	..
	2017	*2,741	*415	*2,311	..	..	*15	..
	2018	*2,744	*440	*2,264	..	..	*40	..
	2019	*2,814	*480	*2,264	..	..	*70	..
Namibia	2016	529	143	350	..	0	36	..
	2017	565	143	347	..	5	70	..
	2018	582	143	347	..	5	88	..
	2019	600	113	347	..	5	135	..
Niger	2016	288	280	..	..	..	8	..
	2017	290	281	..	..	..	9	..
	2018	311	291	..	..	..	20	..
	2019	*324	*297	..	..	..	27	..
Nigeria	2016	*12,535	*10,403	*2,111	..	3	18	..
	2017	*12,275	*10,142	*2,111	..	3	19	..
	2018	*12,275	*10,142	*2,111	..	3	19	..
	2019	11,681	9,539	*2,111	..	3	28	..
Rwanda	2016	193	99	84	..	..	9	..
	2017	209	111	86	..	..	12	..
	2018	226	121	92	..	..	12	..
	2019	228	122	95	..	..	12	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	81	*1	80	..	0
..	..	..	..	75	*1	74	..	0
..	..	..	..	75	1	74	..	0
..	..	..	..	75	1	74	..	0
*70	*70	..	..	37	28	*9	..	0
*70	*70	..	..	*41	*30	*9	..	*2
*70	*70	..	..	*125	*30	*92	..	*3
*70	*70	..	..	*125	*30	*92	..	*3
..	..	..	..	10,249	10,244	..	..	5
..	..	..	..	10,243	10,238	..	..	5
..	..	..	..	10,516	10,511	..	..	5
..	..	..	..	10,516	10,511	..	..	5
*40	*40	..	..	496	326	159	..	11
*60	*60	..	..	615	436	166	..	13
*60	*60	..	..	598	413	165	..	20
*60	*60	..	..	486	301	165	..	20
*215	*210	*5	..	364	*1	351	..	12
*215	*210	*5	..	371	*1	351	..	19
*215	*210	*5	..	386	*1	362	..	23
*215	*210	*5	..	388	*1	364	..	23
*200	*200	..	..	*741	*290	*450	..	*1
*260	*260	..	..	*752	*300	*450	..	*2
*260	*260	..	..	*752	*300	*450	..	*2
*260	*260	..	..	*755	*300	*450	..	*5
*80	*80	..	..	*381	*312	..	..	69
*80	*80	..	..	*426	*341	..	..	85
*85	*85	..	..	*485	*364	..	..	121
*90	*90	..	..	*518	*396	..	..	122
348	312	..	36	499	437	61	..	1
323	285	..	38	513	452	60	..	1
361	285	..	76	512	450	60	..	1
332	234	..	98	512	450	60	..	1
*3,300	*3,300	..	..	8,261	5,432	1,770	..	1,059
*3,300	*3,300	..	..	8,820	5,828	1,770	..	1,222
*3,300	*3,300	..	..	9,050	5,851	1,770	..	1,429
*3,300	*3,300	..	..	10,677	6,976	1,770	..	1,931
*31	*27	*3	1	2,460	385	2,075	..	..
*30	*30	..	..	*2,711	*385	*2,311	..	*15
*30	*30	..	..	*2,714	*410	*2,264	..	*40
*40	*40	..	..	*2,774	*440	*2,264	..	*70
..	..	..	..	529	143	350	..	36
..	..	..	..	565	143	347	..	75
..	..	..	..	582	143	347	..	93
..	..	..	..	600	113	347	..	140
61	53	..	8	226	226	..	..	..
62	53	..	9	228	228	..	..	..
73	53	..	20	238	238	..	..	..
*80	*53	..	27	*244	*244	..	..	..
*3,323	*3,262	*40	21	*9,212	*7,141	*2,071	..	..
*3,242	*3,180	*40	22	*9,033	*6,962	*2,071	..	..
*3,242	*3,180	*40	22	*9,033	*6,962	*2,071	..	..
*3,251	*3,180	*40	31	8,430	6,359	*2,071	..	..
*1	*1	..	..	192	98	84	..	9
*1	*1	..	..	208	110	86	..	12
*1	*1	..	..	225	120	92	..	12
*1	*1	..	..	227	121	95	..	12

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2016	*27	*25	2	..	..	0	..
	2017	*29	*26	2	..	..	0	..
	2018	*29	*26	2	..	..	0	..
	2019	*29	*26	2	..	..	0	..
Senegal	2016	*893	*840	..	..	..	22	*31
	2017	1,016	884	..	..	..	102	30
	2018	1,174	1,001	..	..	..	143	*30
	2019	1,432	1,141	..	..	50	*166	*75
Seychelles	2016	*137	*129	..	..	6	2	..
	2017	155	146	..	..	7	3	..
	2018	*155	*146	..	..	6	4	..
	2019	*157	*147	..	..	6	4	..
Sierra Leone	2016	139	78	60	..	..	1	..
	2017	*142	*78	*60	..	..	4	..
	2018	*137	*76	*57	..	..	4	..
	2019	*143	*78	*60	..	..	*4	..
Somalia	2016	87	80	..	..	3	5	..
	2017	90	80	..	..	4	7	..
	2018	91	80	..	..	4	7	..
	2019	91	80	..	..	4	7	..
South Africa	2016	*51,889	*42,581	*3,146	1,860	*2,328	1,974	..
	2017	*55,432	*45,497	3,479	1,940	*2,330	2,186	..
	2018	*56,205	*45,497	3,479	1,940	*2,330	2,959	..
	2019	*58,683	*48,380	*3,479	1,940	*2,323	2,561	..
South Sudan	2016	*84	*80	*3	..	..	*1	..
	2017	*131	*120	*3	..	..	*8	..
	2018	*131	*120	*3	..	..	*8	..
	2019	*131	*120	*3	..	..	*8	..
St. Helena and Depend.	2016	11	8	..	..	2	1	..
	2017	11	8	..	..	*3	1	..
	2018	12	8	..	..	3	2	..
	2019	12	8	..	..	*3	*2	..
Sudan	2016	3,540	1,935	1,593	..	..	12	..
	2017	3,770	2,004	1,753	..	..	13	..
	2018	3,933	2,013	1,907	..	..	13	..
	2019	*4,138	*2,213	1,907	..	..	18	..
Togo	2016	213	158	55	..	..	..	..
	2017	227	158	67	..	..	3	..
	2018	227	157	67	..	..	4	..
	2019	230	158	67	..	..	5	..
Tunisia	2016	5,240	4,901	62	..	240	37	..
	2017	5,085	4,734	62	..	240	49	..
	2018	4,922	4,474	62	..	240	146	..
	2019	5,526	5,068	62	..	240	156	..
Uganda	2016	872	166	695	..	..	11	..
	2017	913	178	712	..	..	22	..
	2018	984	198	744	..	..	42	..
	2019	1,256	199	1,004	..	..	52	..
United Rep. of Tanzania	2016	1,394	808	567	..	..	18	..
	2017	1,412	829	562	..	..	22	..
	2018	1,607	1,015	567	..	..	25	..
	2019	1,530	931	574	..	..	26	..
Zambia	2016	2,827	439	2,388	..	..	0	..
	2017	2,897	498	2,398	..	..	1	..
	2018	2,898	499	2,398	..	..	1	..
	2019	2,981	494	2,399	..	..	89	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	*27	*25	2	..	0
..	..	..	..	*29	*26	2	..	0
..	..	..	..	*29	*26	2	..	0
..	..	..	..	*29	*26	2	..	0
*383	*330	..	*53	*510	*510	..	..	..
*462	*330	..	132	554	554	..	..	..
503	330	..	173	671	671	..	..	..
461	330	..	*131	971	811	..	..	*160
*28	*28	..	..	*108	*100	..	..	8
*29	*29	..	..	126	116	..	..	10
*29	*29	..	..	*126	*116	..	..	10
*29	*29	..	..	*127	*118	..	..	10
*1	*1	..	..	138	77	60	..	1
*1	*1	..	..	*141	*77	*60	..	4
*1	*1	..	..	*136	*75	*57	..	4
*1	*1	..	..	*142	*77	*60	..	*4
..	..	..	..	87	80	..	..	7
..	..	..	..	90	80	..	..	10
..	..	..	..	91	80	..	..	11
..	..	..	..	91	80	..	..	11
*8,633	*4,391	40	*4,202	*43,256	*38,190	*3,106	1,860	*100
*6,877	*2,400	61	*4,416	*48,555	*43,097	3,418	1,940	100
*7,650	*2,400	*61	5,189	*48,555	*43,097	3,418	1,940	*100
*7,245	*2,400	*61	4,784	*51,438	*45,980	*3,418	1,940	*100
*41	*40	..	*1	*43	*40	*3	..	0
*41	*40	..	*1	*90	*80	*3	..	*7
*41	*40	..	*1	*90	*80	*3	..	*7
*41	*40	..	*1	*90	*80	*3	..	*7
..	..	..	..	11	8	..	..	3
..	..	..	..	11	8	..	..	*3
..	..	..	..	12	8	..	..	4
..	..	..	..	12	8	..	..	*4
190	190	..	..	3,350	1,745	1,593	..	12
190	190	..	..	3,580	1,814	1,753	..	13
199	199	..	..	3,734	1,814	1,907	..	13
*200	*200	..	..	*3,938	*2,013	1,907	..	18
*8	*8	..	..	205	150	55	..	..
*11	*8	..	3	217	150	67	..	..
*12	*8	..	4	216	149	67	..	..
*13	*8	..	5	217	150	67	..	..
*235	*198	..	37	5,005	4,703	62	..	240
*247	*198	..	49	4,838	4,536	62	..	240
*344	*198	..	146	4,578	4,276	62	..	240
*353	*198	..	155	5,173	4,870	62	..	241
130	65	65	..	742	102	630	..	11
160	76	82	2	752	102	630	..	21
212	96	114	*2	772	102	630	..	41
248	97	149	*2	1,007	102	855	..	51
*38	*20	..	18	1,356	788	567	..	..
54	32	..	22	1,358	796	562	..	..
211	186	..	25	1,396	829	567	..	..
*212	*186	..	26	1,318	745	574	..	..
..	..	..	..	2,827	439	2,388	..	0
..	..	..	..	2,897	498	2,398	..	1
..	..	..	..	2,898	499	2,398	..	1
..	..	..	..	2,981	494	2,399	..	89

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2016	2,015	1,265	750	..	..	..	..
	2017	2,015	1,265	750	..	..	..	..
	2018	2,315	1,265	1,050	..	..	..	..
	2019	*2,346	*1,265	1,081	..	..	..	..
<b>America, North</b>	<b>2016</b>	<b>1,347,408</b>	<b>885,490</b>	<b>203,516</b>	<b>115,206</b>	<b>99,088</b>	<b>38,703</b>	<b>5,404</b>
	<b>2017</b>	<b>1,363,541</b>	<b>884,428</b>	<b>204,007</b>	<b>115,270</b>	<b>105,610</b>	<b>47,978</b>	<b>6,247</b>
	<b>2018</b>	<b>1,399,114</b>	<b>896,152</b>	<b>204,924</b>	<b>115,100</b>	<b>114,925</b>	<b>58,863</b>	<b>9,148</b>
	<b>2019</b>	<b>1,413,810</b>	<b>890,813</b>	<b>205,560</b>	<b>113,873</b>	<b>125,070</b>	<b>68,935</b>	<b>9,558</b>
Anguilla	2016	35	33	..	..	..	2	..
	2017	26	24	..	..	..	2	..
	2018	25	24	..	..	..	1	..
	2019	26	24	..	..	..	2	..
Antigua and Barbuda	2016	*117	*111	..	..	..	6	..
	2017	*119	*113	..	..	..	6	..
	2018	91	82	..	..	..	9	..
	2019	*118	*109	..	..	..	9	..
Aruba	2016	288	258	..	..	30	..	..
	2017	288	258	..	..	30	..	..
	2018	288	258	..	..	30	..	..
	2019	288	258	..	..	30	..	..
Bahamas	2016	576	576	..	..	..	..	..
	2017	576	576	..	..	..	..	..
	2018	576	576	..	..	..	..	..
	2019	576	576	..	..	..	..	..
Barbados	2016	268	249	..	..	..	19	..
	2017	281	262	..	..	..	19	..
	2018	259	234	..	..	..	25	..
	2019	301	261	..	..	..	40	..
Belize	2016	146	94	51	..	..	0	..
	2017	165	113	51	..	..	0	..
	2018	165	113	51	..	..	0	..
	2019	158	100	55	..	..	3	..
Bermuda	2016	*173	*171	..	..	..	*2	..
	2017	*174	*171	..	..	..	*3	..
	2018	*176	*172	..	..	..	4	..
	2019	*176	*172	..	..	..	4	..
Bonaire, St Eustatius, Saba	2016	33	20	..	..	11	2	..
	2017	*33	*20	..	..	11	2	..
	2018	*37	*20	..	..	11	6	..
	2019	*37	*20	..	..	11	6	..
British Virgin Islands	2016	45	44	..	..	1	1	..
	2017	*32	*31	..	..	*1	*1	..
	2018	*33	*32	..	..	*1	0	..
	2019	*33	*32	..	..	*1	0	..
Canada	2016	146,601	37,557	80,304	14,033	11,973	2,665	*69
	2017	147,449	37,307	80,831	14,033	12,250	2,932	*96
	2018	148,762	37,322	81,396	14,033	12,816	3,095	*100
	2019	149,594	37,322	81,399	14,033	13,413	3,327	*100
Cayman Islands	2016	161	161	..	..	..	..	..
	2017	161	161	..	..	..	..	..
	2018	161	161	..	..	..	..	..
	2019	161	161	..	..	..	..	..
Costa Rica	2016	4,003	617	2,538	..	619	21	207
	2017	3,566	617	2,328	..	378	36	207
	2018	3,648	629	2,360	..	408	44	207
	2019	3,626	550	2,344	..	411	59	262

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*45	*45	..	..	1,970	1,220	750	..	..
*45	*45	..	..	1,970	1,220	750	..	..
*45	*45	..	..	2,270	1,220	1,050	..	..
*45	*45	..	..	*2,301	*1,220	1,081	..	..
<b>77,644</b>	<b>51,958</b>	<b>6,011</b>	<b>19,675</b>	<b>1,269,764</b>	<b>833,532</b>	<b>197,505</b>	<b>115,206</b>	<b>123,521</b>
<b>80,930</b>	<b>51,684</b>	<b>5,811</b>	<b>23,435</b>	<b>1,282,611</b>	<b>832,744</b>	<b>198,196</b>	<b>115,270</b>	<b>136,401</b>
<b>81,265</b>	<b>47,509</b>	<b>5,774</b>	<b>27,981</b>	<b>1,317,849</b>	<b>848,643</b>	<b>199,150</b>	<b>115,100</b>	<b>154,956</b>
<b>84,412</b>	<b>46,475</b>	<b>5,778</b>	<b>32,159</b>	<b>1,329,397</b>	<b>844,338</b>	<b>199,782</b>	<b>113,873</b>	<b>171,404</b>
..	..	..	..	35	33	..	..	2
..	..	..	..	26	24	..	..	2
..	..	..	..	25	24	..	..	1
..	..	..	..	26	24	..	..	2
*1	*1	..	..	*116	*110	..	..	6
*1	*1	..	..	*118	*112	..	..	6
*1	*1	..	..	90	81	..	..	9
*1	*1	..	..	*117	*108	..	..	9
..	..	..	..	288	258	..	..	30
..	..	..	..	288	258	..	..	30
..	..	..	..	288	258	..	..	30
..	..	..	..	288	258	..	..	30
*39	*39	..	..	537	537	..	..	..
*39	*39	..	..	537	537	..	..	..
*39	*39	..	..	537	537	..	..	..
*39	*39	..	..	537	537	..	..	..
*10	*10	..	..	258	239	..	..	19
*10	*10	..	..	271	252	..	..	19
*10	*10	..	..	249	224	..	..	25
*10	*10	..	..	291	251	..	..	40
*34	*34	..	..	112	60	51	..	0
*45	*45	..	..	120	68	51	..	0
*45	*45	..	..	120	68	51	..	0
*45	*45	..	..	113	55	55	..	3
*6	*4	..	*2	*167	*167	..	..	..
*7	*4	..	*3	*167	*167	..	..	..
9	5	..	4	*167	*167	..	..	..
9	5	..	4	*167	*167	..	..	..
..	..	..	..	33	20	..	..	13
..	..	..	..	*33	*20	..	..	13
..	..	..	..	*37	*20	..	..	17
..	..	..	..	*37	*20	..	..	17
..	..	..	..	45	44	..	..	1
..	..	..	..	*32	*31	..	..	*1
..	..	..	..	*33	*32	..	..	*1
..	..	..	..	*33	*32	..	..	*1
11,947	5,684	5,123	1,140	134,654	31,873	75,181	14,033	13,567
12,071	5,559	5,132	1,380	135,378	31,748	75,699	14,033	13,898
12,412	5,674	5,175	1,563	136,350	31,648	76,221	14,033	14,448
12,525	5,674	5,175	1,676	137,069	31,648	76,224	14,033	15,164
..	..	..	..	161	161	..	..	..
..	..	..	..	161	161	..	..	..
..	..	..	..	161	161	..	..	..
..	..	..	..	161	161	..	..	..
*576	45	210	*320	3,427	572	2,328	..	527
76	45	0	30	3,490	572	2,328	..	590
97	58	0	39	3,551	572	2,359	..	620
130	76	0	54	3,495	474	2,343	..	678

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Cuba	2016	6,454	6,341	66	..	*16	*30	..
	2017	6,476	6,325	66	..	*22	*63	..
	2018	6,661	6,458	64	..	*36	*103	..
	2019	6,508	6,285	64	..	*41	*118	..
Curaçao	2016	*307	*262	..	..	30	*15	..
	2017	*257	*200	..	..	47	11	..
	2018	*257	*200	..	..	45	12	..
	2019	*216	*159	..	..	45	12	..
Dominica	2016	42	35	7	..	0	1	..
	2017	42	35	7	..	0	1	..
	2018	40	35	5	..	0	0	..
	2019	40	35	5	..	0	0	..
Dominican Republic	2016	5,202	4,382	617	..	135	69	..
	2017	5,132	4,276	617	..	135	103	..
	2018	5,275	4,271	617	..	183	203	..
	2019	6,194	4,995	625	..	370	*204	..
El Salvador	2016	*1,748	*1,037	495	..	..	12	204
	2017	1,943	1,055	574	..	..	110	204
	2018	2,025	1,079	575	..	..	167	204
	2019	2,263	1,079	574	..	..	406	204
Greenland	2016	187	*96	91	..	..	..	..
	2017	187	96	91	..	..	..	..
	2018	*187	*96	*91	..	..	..	..
	2019	187	*96	91	..	..	..	..
Grenada	2016	50	48	..	..	..	2	..
	2017	52	50	..	..	..	2	..
	2018	54	52	..	..	..	2	..
	2019	55	52	..	..	..	3	..
Guatemala	2016	3,442	1,942	1,306	..	76	85	34
	2017	3,356	1,845	1,311	..	75	92	34
	2018	3,499	1,770	1,492	..	107	92	39
	2019	4,042	2,234	1,560	..	107	93	49
Haiti	2016	*336	*274	61	..	..	1	..
	2017	*344	*282	61	..	..	1	..
	2018	*352	*290	61	..	..	1	..
	2019	*471	*390	78	..	..	3	..
Honduras	2016	2,456	1,209	663	..	175	409	..
	2017	2,663	1,267	685	..	225	451	35
	2018	2,740	1,254	715	..	225	511	35
	2019	2,770	1,257	730	..	235	513	35
Jamaica	2016	1,031	871	29	..	101	30	..
	2017	1,041	871	29	..	101	40	..
	2018	1,045	874	29	..	102	40	..
	2019	*1,150	*962	29	..	*102	57	..
Mexico	2016	72,574	53,047	12,580	1,608	4,051	362	926
	2017	74,431	54,388	12,628	1,608	4,180	642	985
	2018	89,351	62,010	12,643	1,634	5,887	2,579	4,598
	2019	92,286	63,521	13,301	1,721	6,073	2,838	4,832
Montserrat	2016	5	5	..	..	..	..	..
	2017	5	5	..	..	..	..	..
	2018	5	5	..	..	..	..	..
	2019	6	5	..	..	..	0	..
Nicaragua	2016	1,396	912	142	..	186	1	155
	2017	1,482	985	142	..	186	14	155
	2018	1,482	985	142	..	186	14	155
	2019	1,621	1,107	158	..	186	16	153

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
494	494	..	..	5,960	5,847	66	..	*47
531	531	..	..	5,945	5,794	66	..	*85
553	553	..	..	6,108	5,905	64	..	*139
459	459	..	..	6,049	5,826	64	..	*159
*146	*146	..	..	*161	*116	..	..	45
*84	*84	..	..	*173	*116	..	..	57
*84	*84	..	..	*173	*116	..	..	57
*33	*33	..	..	*183	*126	..	..	57
15	15	..	..	28	20	7	..	1
15	15	..	..	28	20	7	..	1
*15	*15	..	..	25	20	5	..	1
*15	*15	..	..	25	20	5	..	1
1,393	1,353	1	39	3,809	3,028	616	..	165
1,294	1,219	1	73	3,838	3,057	616	..	165
1,306	1,189	2	116	3,969	3,082	616	..	271
1,373	1,255	*2	*116	4,822	3,740	623	..	458
*314	*280	23	12	*1,434	*757	473	..	204
*363	*291	22	50	1,580	764	552	..	264
*451	*322	22	107	1,574	757	553	..	264
*555	*322	21	212	1,708	757	553	..	398
*16	*16	..	..	171	*80	91	..	..
16	16	..	..	171	80	91	..	..
*16	*16	..	..	*171	*80	*91	..	..
*16	*16	..	..	171	*80	91	..	..
0	0	..	..	50	48	..	..	2
0	0	..	..	52	50	..	..	2
0	0	..	..	54	52	..	..	2
0	0	..	..	55	52	..	..	3
705	701	4	..	2,737	1,241	1,302	..	194
679	675	4	..	2,677	1,170	1,307	..	200
652	647	5	..	2,846	1,122	1,487	..	237
*655	*650	*5	..	3,387	1,584	1,555	..	249
*96	*96	..	..	*240	*178	61	..	1
*99	*99	..	..	*245	*183	61	..	1
*102	*102	..	..	*250	*188	61	..	1
*137	*137	..	..	*333	*253	78	..	3
364	364	..	..	2,092	845	663	..	584
394	394	..	..	2,269	873	685	..	711
369	369	..	..	2,371	885	715	..	771
354	354	..	..	2,416	903	730	..	783
370	262	..	108	661	609	29	..	23
380	262	..	118	661	609	29	..	23
380	262	..	118	665	612	29	..	24
*485	*350	..	*135	*665	*612	29	..	*24
16,670	12,767	232	3,671	55,904	40,280	12,348	1,608	1,668
16,895	12,772	233	3,890	57,536	41,616	12,395	1,608	1,917
12,928	8,047	225	4,656	76,423	53,963	12,418	1,634	8,408
11,813	6,698	225	4,890	80,473	56,823	13,076	1,721	8,853
..	..	..	..	5	5	..	..	..
..	..	..	..	5	5	..	..	..
..	..	..	..	5	5	..	..	..
..	..	..	..	6	5	..	..	0
178	177	1	..	1,219	735	142	..	342
178	177	1	..	1,305	809	142	..	355
178	177	1	..	1,305	809	142	..	355
219	218	1	..	1,402	888	157	..	356



Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Panama	2016	3,371	1,235	1,769	..	270	89	8
	2017	3,423	1,225	1,777	..	270	143	8
	2018	4,055	1,811	1,777	..	270	189	8
	2019	4,091	1,819	1,796	..	270	198	8
Puerto Rico	2016	6,257	5,900	99	..	125	133	..
	2017	*6,264	*5,900	99	..	101	165	..
	2018	5,830	5,466	99	..	101	165	..
	2019	6,173	5,808	99	..	102	165	..
Sint Maarten (Dutch part)	2016	97	97	..	..	..	..	..
	2017	*88	*88	..	..	..	..	..
	2018	*92	*92	..	..	..	..	..
	2019	*96	*96	..	..	..	..	..
St. Kitts-Nevis	2016	65	60	..	..	2	2	..
	2017	65	60	..	..	2	2	..
	2018	71	67	..	..	2	2	..
	2019	*71	*67	..	..	2	2	..
St. Lucia	2016	88	88	..	..	..	..	..
	2017	88	88	..	..	..	..	..
	2018	91	88	..	..	..	3	..
	2019	91	88	..	..	..	3	..
St. Pierre-Miquelon	2016	25	25	..	..	0	..	..
	2017	25	25	..	..	0	..	..
	2018	26	26	..	..	0	..	..
	2019	26	26	..	..	0	..	..
St. Vincent-Grenadines	2016	53	46	6	..	..	1	..
	2017	48	41	6	..	..	1	..
	2018	46	38	6	..	..	2	..
	2019	48	40	6	..	..	2	..
Trinidad and Tobago	2016	2,505	2,502	..	..	..	3	..
	2017	2,509	2,506	..	..	0	3	..
	2018	2,156	2,153	..	..	0	3	..
	2019	2,118	2,115	..	..	0	3	..
Turks and Caicos Islands	2016	82	82	..	..	..	..	..
	2017	82	82	..	..	..	..	..
	2018	85	84	..	..	..	1	..
	2019	85	84	..	..	..	1	..
United States	2016	1,086,849	764,787	102,692	99,565	81,287	34,716	3,802
	2017	1,100,333	762,765	102,703	99,629	87,597	43,115	4,524
	2018	1,119,131	767,009	102,801	99,433	94,516	51,570	3,802
	2019	1,127,772	758,593	102,649	98,119	103,670	60,827	3,914
United States Virgin Is.	2016	340	316	..	..	0	*24	..
	2017	336	316	..	..	0	*20	..
	2018	336	316	..	..	0	*20	..
	2019	*336	*316	..	..	0	*20	..
<b>America, South</b>	<b>2016</b>	<b>302,343</b>	<b>122,808</b>	<b>161,283</b>	<b>3,753</b>	<b>13,043</b>	<b>1,454</b>	<b>1</b>
	<b>2017</b>	<b>314,718</b>	<b>125,540</b>	<b>166,210</b>	<b>3,745</b>	<b>15,782</b>	<b>3,417</b>	<b>25</b>
	<b>2018</b>	<b>326,986</b>	<b>127,635</b>	<b>171,006</b>	<b>3,745</b>	<b>18,934</b>	<b>5,625</b>	<b>40</b>
	<b>2019</b>	<b>337,663</b>	<b>128,574</b>	<b>175,767</b>	<b>3,745</b>	<b>21,069</b>	<b>8,468</b>	<b>40</b>
Argentina	2016	37,430	25,314	10,127	1,763	217	9	..
	2017	39,764	26,510	11,262	1,755	229	8	..
	2018	42,128	28,122	11,308	1,755	752	191	..
	2019	43,272	28,137	11,330	1,755	1,611	439	..
Bolivia (Plur. State of)	2016	*2,447	*1,919	496	..	27	5	..
	2017	*2,611	*1,953	620	..	27	11	..
	2018	*2,773	*1,983	692	..	27	71	..
	2019	3,692	2,783	761	..	27	121	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
232	172	60	..	3,139	1,063	1,709	..	367
232	172	60	..	3,191	1,053	1,717	..	421
232	172	60	..	3,823	1,639	1,717	..	467
522	462	60	..	3,569	1,357	1,736	..	476
*61	*61	..	..	6,196	5,839	99	..	258
*61	*61	..	..	*6,203	*5,839	99	..	266
*60	*60	..	..	5,770	5,406	99	..	266
60	60	..	..	6,113	5,748	99	..	267
..	..	..	..	97	97	..	..	..
..	..	..	..	*88	*88	..	..	..
..	..	..	..	*92	*92	..	..	..
..	..	..	..	*96	*96	..	..	..
*4	*4	..	..	61	56	..	..	4
*4	*4	..	..	61	56	..	..	4
*4	*4	..	..	67	63	..	..	4
*4	*4	..	..	*67	*63	..	..	4
..	..	..	..	88	88	..	..	..
..	..	..	..	88	88	..	..	..
..	..	..	..	91	88	..	..	3
..	..	..	..	91	88	..	..	3
..	..	..	..	25	25	..	..	0
..	..	..	..	25	25	..	..	0
..	..	..	..	26	26	..	..	0
..	..	..	..	26	26	..	..	0
0	..	..	0	53	46	6	..	1
0	..	..	0	48	41	6	..	1
0	..	..	0	45	38	6	..	2
0	..	..	0	48	40	6	..	2
*100	*100	..	..	2,405	2,402	..	..	3
*104	*104	..	..	2,405	2,402	..	..	3
*107	*107	..	..	2,049	2,046	..	..	3
*96	*96	..	..	2,022	2,019	..	..	3
..	..	..	..	82	82	..	..	..
..	..	..	..	82	82	..	..	..
..	..	..	..	85	84	..	..	1
..	..	..	..	85	84	..	..	1
43,858	29,133	357	14,368	1,042,991	735,654	102,335	99,565	105,437
47,338	29,106	357	17,875	1,052,995	733,659	102,346	99,629	117,361
51,200	29,552	284	21,364	1,067,931	737,457	102,517	99,433	128,524
54,842	29,496	289	25,057	1,072,930	729,097	102,360	98,119	143,354
*15	0	..	*15	325	316	..	..	9
*15	0	..	*15	321	316	..	..	5
*15	..	..	*15	321	316	..	..	5
*15	..	..	*15	*321	*316	..	..	5
<b>36,608</b>	<b>30,881</b>	<b>5,533</b>	<b>194</b>	<b>265,735</b>	<b>91,927</b>	<b>155,750</b>	<b>3,753</b>	<b>14,304</b>
<b>38,733</b>	<b>32,741</b>	<b>5,638</b>	<b>354</b>	<b>275,985</b>	<b>92,799</b>	<b>160,572</b>	<b>3,745</b>	<b>18,869</b>
<b>39,933</b>	<b>33,500</b>	<b>5,732</b>	<b>701</b>	<b>287,053</b>	<b>94,136</b>	<b>165,274</b>	<b>3,745</b>	<b>23,898</b>
<b>40,037</b>	<b>32,781</b>	<b>5,739</b>	<b>1,517</b>	<b>297,626</b>	<b>95,794</b>	<b>170,028</b>	<b>3,745</b>	<b>28,060</b>
3,614	3,592	20	2	33,816	21,722	10,107	1,763	224
3,614	3,592	20	2	36,150	22,918	11,242	1,755	235
3,614	3,592	20	2	38,514	24,530	11,288	1,755	941
3,614	3,592	20	2	39,658	24,545	11,310	1,755	2,048
*188	*187	*1	..	*2,259	*1,732	495	..	32
*196	*195	*1	..	*2,415	*1,758	619	..	38
129	128	*2	..	*2,644	*1,856	690	..	98
*155	*153	*2	..	3,537	2,630	759	..	148

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Brazil	2016	150,422	41,286	96,931	1,990	10,129	86	..
	2017	157,579	41,881	100,319	1,990	12,293	1,096	..
	2018	163,509	40,561	104,198	1,990	14,400	2,360	..
	2019	172,280	41,281	109,155	1,990	15,388	4,466	..
Chile	2016	24,530	15,695	6,671	..	1,039	1,125	0
	2017	26,207	16,500	6,656	..	1,302	1,724	24
	2018	27,534	16,877	6,627	..	1,692	2,298	40
	2019	27,644	16,544	6,341	..	1,999	2,720	40
Colombia	2016	17,691	5,972	11,700	..	18	..	0
	2017	17,931	6,084	11,820	..	18	10	0
	2018	18,889	6,854	11,931	..	18	*86	0
	2019	19,009	6,890	12,011	..	18	*90	0
Ecuador	2016	8,697	4,105	4,545	..	21	26	..
	2017	8,644	3,934	4,663	..	21	26	..
	2018	9,365	4,054	5,264	..	21	27	..
	2019	9,418	4,096	5,274	..	21	27	..
Falkland Is. (Malvinas)	2016	11	9	..	..	2	0	..
	2017	11	9	..	..	2	0	..
	2018	11	9	..	..	2	0	..
	2019	11	9	..	..	2	0	..
Guyana	2016	360	356	..	..	0	3	..
	2017	348	343	..	..	0	5	..
	2018	348	340	..	..	0	8	..
	2019	335	327	..	..	0	8	..
Paraguay	2016	8,761	1	8,760	..	..	..	..
	2017	8,761	1	8,760	..	..	..	..
	2018	8,761	1	8,760	..	..	..	..
	2019	8,761	1	8,760	..	..	..	..
Peru	2016	14,517	8,988	5,189	..	240	100	..
	2017	14,775	9,005	5,246	..	240	284	..
	2018	15,214	9,154	5,363	..	372	325	..
	2019	15,162	9,062	5,397	..	372	331	..
Suriname	2016	508	313	189	..	..	6	..
	2017	529	334	189	..	..	6	..
	2018	532	336	189	..	..	7	..
	2019	*539	343	*189	..	..	7	..
Uruguay	2016	3,913	1,075	1,538	..	1,212	89	..
	2017	4,546	1,255	1,538	..	1,511	243	..
	2018	4,912	1,615	1,538	..	1,511	248	..
	2019	4,920	1,615	1,538	..	1,514	254	..
Venezuela (Bolivar. Rep.)	2016	33,058	17,777	15,137	..	138	5	1
	2017	33,013	17,732	15,137	..	138	5	*1
	2018	33,012	17,732	15,137	..	138	4	*1
	2019	32,620	17,487	15,011	..	116	5	*1
<b>Asia</b>	<b>2016</b>	<b>3,359,956</b>	<b>2,327,973</b>	<b>559,878</b>	<b>112,342</b>	<b>196,341</b>	<b>145,690</b>	<b>17,731</b>
	<b>2017</b>	<b>3,502,391</b>	<b>2,354,019</b>	<b>574,928</b>	<b>111,923</b>	<b>217,488</b>	<b>224,968</b>	<b>19,065</b>
	<b>2018</b>	<b>3,688,802</b>	<b>2,435,750</b>	<b>586,682</b>	<b>118,698</b>	<b>240,255</b>	<b>287,195</b>	<b>20,223</b>
	<b>2019</b>	<b>3,855,085</b>	<b>2,504,581</b>	<b>596,916</b>	<b>118,583</b>	<b>269,157</b>	<b>345,132</b>	<b>20,717</b>
Afghanistan	2016	*519	*135	*384	..	..	..	..
	2017	*519	*135	*384	..	..	..	..
	2018	*519	*135	*384	..	..	..	..
	2019	*531	*135	*384	..	..	*12	..
Armenia	2016	3,564	1,840	1,312	408	3	1	..
	2017	3,582	1,840	1,327	408	3	4	..
	2018	3,591	1,827	1,336	408	3	18	..
	2019	3,621	1,827	1,340	408	4	43	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
24,199	19,185	4,949	65	126,223	22,101	91,982	1,990	10,150
24,941	19,751	5,019	171	132,638	22,130	95,300	1,990	13,218
25,498	19,925	5,061	512	138,011	20,636	99,137	1,990	16,248
26,482	20,129	5,068	1,285	145,798	21,152	104,087	1,990	18,569
2,486	2,448	36	2	22,044	13,247	6,635	..	2,162
3,669	3,658	8	3	22,538	12,842	6,648	..	3,047
4,241	4,225	9	7	23,293	12,652	6,619	..	4,023
3,357	3,310	9	38	24,288	13,234	6,333	..	4,721
*1,624	*1,530	*94	..	16,067	4,442	11,606	..	18
*1,624	*1,530	*94	..	16,307	4,554	11,726	..	28
1,624	1,530	94	..	17,265	5,324	11,837	..	*104
1,624	1,530	94	..	17,385	5,360	11,917	..	*108
1,090	963	127	..	7,607	3,142	4,418	..	47
1,209	1,033	177	..	7,435	2,902	4,486	..	47
1,317	1,090	227	..	8,048	2,964	5,036	..	48
1,346	1,118	227	..	8,073	2,978	5,047	..	48
*2	*2	..	..	9	7	..	..	2
*2	*2	..	..	9	7	..	..	2
*2	*2	..	..	9	7	..	..	2
*2	*2	..	..	9	7	..	..	2
54	54	..	..	306	302	..	..	3
50	50	..	..	298	293	..	..	5
51	51	..	..	297	289	..	..	8
42	42	..	..	293	285	..	..	8
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
1,473	1,356	117	..	13,044	7,632	5,072	..	340
1,536	1,366	130	*40	13,239	7,639	5,116	..	484
1,563	1,392	131	*40	13,651	7,762	5,232	..	657
1,512	1,339	131	*42	13,650	7,723	5,266	..	661
312	*123	189	..	196	190	..	..	6
312	*123	189	..	217	211	..	..	6
312	*123	189	..	220	213	..	..	7
*312	*123	*189	..	227	220	..	..	7
466	432	..	34	3,447	643	1,538	..	1,266
480	432	..	48	4,066	823	1,538	..	1,705
483	433	..	51	4,428	1,182	1,538	..	1,708
491	433	..	59	4,429	1,182	1,538	..	1,709
*1,101	*1,010	..	91	31,957	16,767	15,137	..	53
*1,100	*1,010	..	90	31,913	16,722	15,137	..	54
*1,099	*1,010	..	89	31,913	16,722	15,137	..	54
*1,101	*1,010	..	91	31,519	16,477	15,011	..	31
<b>328,722</b>	<b>273,844</b>	<b>3,645</b>	<b>51,233</b>	<b>3,031,234</b>	<b>2,054,129</b>	<b>556,233</b>	<b>112,342</b>	<b>308,530</b>
<b>292,077</b>	<b>230,519</b>	<b>3,617</b>	<b>57,941</b>	<b>3,210,314</b>	<b>2,123,500</b>	<b>571,311</b>	<b>111,923</b>	<b>403,580</b>
<b>337,704</b>	<b>267,708</b>	<b>5,448</b>	<b>64,547</b>	<b>3,351,099</b>	<b>2,168,042</b>	<b>581,234</b>	<b>118,698</b>	<b>483,126</b>
<b>370,351</b>	<b>291,678</b>	<b>5,529</b>	<b>73,143</b>	<b>3,484,734</b>	<b>2,212,903</b>	<b>591,387</b>	<b>118,583</b>	<b>561,862</b>
*195	*65	*130	..	*324	*70	*254	..	..
*195	*65	*130	..	*324	*70	*254	..	..
*195	*65	*130	..	*324	*70	*254	..	..
*195	*65	*130	..	*336	*70	*254	..	*12
..	..	..	..	3,564	1,840	1,312	408	4
2	..	..	2	3,580	1,840	1,327	408	5
10	..	..	10	3,581	1,827	1,336	408	11
33	..	..	33	3,588	1,827	1,340	408	14

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Azerbaijan	2016	7,910	6,765	1,105	..	16	25	..
	2017	7,942	6,791	1,106	..	16	28	..
	2018	7,829	6,597	1,131	..	66	35	..
	2019	7,642	6,395	1,145	..	66	35	..
Bahrain	2016	6,977	6,971	..	..	1	5	..
	2017	6,977	6,971	..	..	*1	*5	..
	2018	6,977	6,971	..	..	*1	*5	..
	2019	*6,977	*6,971	..	..	*1	*5	..
Bangladesh	2016	11,866	11,495	230	..	*1	140	..
	2017	12,213	11,817	230	..	*1	165	..
	2018	*15,293	*14,927	230	..	*1	135	..
	2019	18,291	17,922	230	..	*1	138	..
Bhutan	2016	1,624	9	1,614	..	1	0	..
	2017	1,623	8	1,614	..	1	0	..
	2018	1,624	8	1,614	..	1	1	..
	2019	2,343	7	2,334	..	1	1	..
Brunei Darussalam	2016	*820	*819	..	..	..	*1	..
	2017	993	992	..	..	..	1	..
	2018	993	992	..	..	..	1	..
	2019	1,109	1,108	..	..	..	1	..
Cambodia	2016	1,683	751	930	..	..	*2	..
	2017	1,878	888	980	..	..	10	..
	2018	2,187	847	1,330	..	..	10	..
	2019	2,443	1,007	1,330	..	..	105	..
China	2016	1,749,872	1,160,274	332,071	33,642	147,472	76,313	*100
	2017	1,824,130	1,149,480	344,110	35,820	164,000	130,420	*300
	2018	1,952,048	1,195,998	352,590	44,660	184,270	174,330	*200
	2019	2,064,680	1,244,540	358,040	48,740	209,150	204,180	*30
China, Hong Kong SAR	2016	12,625	12,625	..	..	..	..	..
	2017	12,492	12,492	..	..	..	..	..
	2018	12,282	12,282	..	..	..	..	..
	2019	12,225	12,225	..	..	..	..	..
China, Macao SAR	2016	501	501	..	..	..	..	..
	2017	437	437	..	..	..	..	..
	2018	437	437	..	..	..	..	..
	2019	437	437	..	..	..	..	..
Cyprus	2016	1,756	1,515	..	..	158	84	..
	2017	1,782	1,515	..	..	158	110	..
	2018	1,794	1,517	..	..	158	119	..
	2019	1,819	1,510	..	..	158	151	..
Georgia	2016	3,299	849	2,430	..	20	..	..
	2017	3,592	849	2,723	..	20	..	..
	2018	3,591	876	2,695	..	20	..	..
	2019	3,712	1,108	2,583	..	21	..	..
India	2016	374,795	267,129	44,597	6,780	35,480	12,514	8,295
	2017	400,455	276,062	45,344	6,780	38,186	24,538	9,545
	2018	427,794	298,316	45,502	6,780	38,825	28,455	9,916
	2019	442,297	305,307	45,807	6,780	40,490	33,912	10,001
Indonesia	2016	59,305	52,622	4,868	..	*7	13	*1,795
	2017	*60,980	*53,517	*5,190	..	*7	*17	*2,249
	2018	64,417	56,383	5,741	..	*143	*24	*2,126
	2019	66,845	58,600	5,858	..	*154	*105	*2,128
Iran (Islamic Rep. of)	2016	74,106	61,262	11,578	1,020	191	43	12
	2017	*76,569	*63,145	11,949	1,020	259	184	12
	2018	*78,794	*65,241	11,953	1,020	282	286	12
	2019	*80,467	*66,740	12,026	1,020	302	367	12

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
744	736	..	8	7,167	6,029	1,105	..	33
770	762	..	8	7,172	6,029	1,106	..	36
852	852	..	0	6,977	5,746	1,131	..	101
848	848	..	0	6,794	5,548	1,145	..	101
*3,050	*3,050	..	..	3,927	3,921	..	..	6
*3,050	*3,050	..	..	3,927	3,921	..	..	*6
*3,050	*3,050	..	..	3,927	3,921	..	..	*6
*3,050	*3,050	..	..	*3,927	*3,921	..	..	*6
2,279	2,279	..	..	9,587	9,216	230	..	141
2,404	2,404	..	..	9,809	9,413	230	..	166
*4,636	*4,636	..	..	*10,657	*10,291	230	..	136
7,332	7,332	..	..	10,959	10,590	230	..	139
..	..	..	..	1,624	9	1,614	..	1
..	..	..	..	1,623	8	1,614	..	1
..	..	..	..	1,624	8	1,614	..	2
..	..	..	..	2,343	7	2,334	..	2
*110	*110	..	..	*709	*708	..	..	*1
117	117	..	..	876	875	..	..	1
117	117	..	..	876	875	..	..	1
*234	*234	..	..	875	874	..	..	1
..	..	..	..	1,683	751	930	..	*2
..	..	..	..	1,878	888	980	..	10
..	..	..	..	2,187	847	1,330	..	10
..	..	..	..	2,443	1,007	1,330	..	105
*99,330	*99,330	..	..	1,650,542	1,060,944	332,071	33,642	223,885
*44,530	*44,530	..	..	1,779,600	1,104,950	344,110	35,820	294,720
*51,190	*51,190	..	..	1,900,858	1,144,808	352,590	44,660	358,800
54,970	54,970	..	..	2,009,710	1,189,570	358,040	48,740	413,360
..	..	..	..	12,625	12,625	..	..	..
..	..	..	..	12,492	12,492	..	..	..
..	..	..	..	12,282	12,282	..	..	..
..	..	..	..	12,225	12,225	..	..	..
29	29	..	..	472	472	..	..	..
29	29	..	..	408	408	..	..	..
29	29	..	..	408	408	..	..	..
29	29	..	..	408	408	..	..	..
67	37	..	30	1,689	1,478	..	..	212
72	37	..	35	1,710	1,478	..	..	233
78	37	..	41	1,716	1,481	..	..	236
93	30	..	63	1,726	1,481	..	..	246
..	..	..	..	3,299	849	2,430	..	20
..	..	..	..	3,592	849	2,723	..	20
..	..	..	..	3,591	876	2,695	..	20
..	..	..	..	3,712	1,108	2,583	..	21
52,289	48,799	65	*3,425	322,506	218,330	44,532	6,780	52,864
56,631	53,155	51	*3,425	343,824	222,907	45,293	6,780	68,844
75,615	72,037	103	*3,475	352,179	226,279	45,399	6,780	73,721
78,000	74,707	108	*3,185	364,297	230,600	45,699	6,780	81,218
*19,325	*17,000	*1,300	*1,025	39,980	35,622	3,568	..	790
*19,881	*17,289	*1,386	*1,206	*41,099	*36,228	*3,804	..	*1,067
21,188	18,863	2,159	*166	43,229	37,520	3,582	..	*2,127
21,455	18,926	2,275	*254	45,390	39,674	3,583	..	*2,133
5,581	5,581	..	..	68,525	55,681	11,578	1,020	246
*5,753	*5,753	..	..	*70,816	*57,392	11,949	1,020	455
*5,905	*5,905	..	..	*72,889	*59,336	11,953	1,020	580
*6,000	*6,000	..	..	*74,467	*60,740	12,026	1,020	681

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Iraq	2016	32,214	29,664	2,513	..	..	37	..
	2017	26,133	24,300	1,796	..	..	37	..
	2018	27,412	25,400	1,796	..	..	216	..
	2019	27,412	25,400	1,796	..	..	216	..
Israel	2016	17,585	16,689	7	..	27	862	..
	2017	17,827	16,813	9	..	27	978	..
	2018	18,019	16,617	9	..	35	1,358	..
	2019	19,493	17,192	9	..	35	2,257	..
Japan	2016	338,210	198,299	50,117	41,482	3,246	42,040	*3,026
	2017	342,197	197,092	50,014	39,132	3,483	49,499	*2,977
	2018	347,178	196,656	50,037	38,042	3,497	56,162	*2,784
	2019	346,474	193,414	50,033	33,083	3,951	63,192	*2,801
Jordan	2016	4,475	3,969	12	..	198	296	..
	2017	4,506	3,890	12	..	198	406	..
	2018	4,846	3,745	12	..	280	809	..
	2019	5,227	3,745	12	..	370	1,101	..
Kazakhstan	2016	*25,452	*22,500	2,696	..	98	158	..
	2017	*25,514	*22,500	2,726	..	112	176	..
	2018	25,270	21,902	2,756	..	121	491	..
	2019	23,965	20,079	2,778	..	284	824	..
Korea, Dem.Ppl's.Rep.	2016	7,671	2,960	4,701	..	..	*10	..
	2017	7,731	2,960	4,761	..	..	*10	..
	2018	8,160	3,360	4,790	..	..	*10	..
	2019	8,160	3,360	4,790	..	..	*10	..
Korea, Republic of	2016	111,203	75,559	6,485	23,116	1,067	4,502	474
	2017	122,950	86,377	6,489	22,529	1,215	5,834	506
	2018	127,475	89,013	6,490	21,850	1,420	8,099	603
	2019	132,104	88,174	6,508	23,250	1,494	11,952	726
Kuwait	2016	18,892	18,890	..	..	..	*2	..
	2017	18,765	18,763	..	..	..	*2	..
	2018	18,867	18,863	..	..	..	*4	..
	2019	19,371	19,266	..	..	12	93	..
Kyrgyzstan	2016	*3,786	*722	*3,064	..	..	..	..
	2017	3,869	*734	3,135	..	..	..	..
	2018	*3,869	*734	*3,135	..	..	..	..
	2019	3,869	734	3,135	..	..	..	..
Lao People's Dem. Rep.	2016	6,460	1,918	4,538	..	..	4	..
	2017	6,931	1,903	5,006	..	..	22	..
	2018	7,187	1,909	5,256	..	..	22	..
	2019	8,014	*1,909	6,083	..	..	22	..
Lebanon	2016	3,662	3,359	280	..	..	23	..
	2017	3,698	3,409	*253	..	..	36	..
	2018	3,704	3,409	*253	..	..	42	..
	2019	3,741	3,409	*253	..	..	79	..
Malaysia	2016	33,090	25,732	6,137	..	..	280	940
	2017	33,334	26,848	6,128	..	..	358	..
	2018	34,389	26,432	6,168	..	..	1,004	786
	2019	*34,153	*26,260	6,245	..	..	882	766
Maldives	2016	274	266	..	..	1	7	..
	2017	*277	*266	..	..	1	10	..
	2018	*376	*365	..	..	1	10	..
	2019	544	529	..	..	1	14	..
Mongolia	2016	*1,199	*1,103	29	..	52	15	..
	2017	1,311	1,132	29	..	102	48	..
	2018	*1,461	*1,210	31	..	156	64	..
	2019	*1,486	*1,210	31	..	156	89	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
37	..	..	37	32,177	29,664	2,513	..	..
37	..	..	37	26,096	24,300	1,796	..	..
216	..	..	216	27,196	25,400	1,796	..	..
216	..	..	216	27,196	25,400	1,796	..	..
1,387	523	2	862	16,198	16,166	5	..	27
1,591	608	5	978	16,236	16,205	4	..	27
2,018	653	7	1,358	16,001	15,964	2	..	35
2,918	654	7	2,257	16,575	16,538	2	..	35
63,756	23,907	596	39,253	274,454	174,392	49,521	41,482	9,059
69,366	23,831	452	45,083	272,831	173,261	49,562	39,132	10,876
75,535	25,187	455	49,893	271,643	171,469	49,582	38,042	12,550
80,404	24,654	398	55,352	266,070	168,760	49,635	33,083	14,592
*199	*199	..	..	4,276	3,770	12	..	494
*199	*199	..	..	4,307	3,691	12	..	604
*199	*199	..	..	4,647	3,546	12	..	1,089
*199	*199	..	..	5,028	3,546	12	..	1,470
*1	..	..	*1	*25,451	*22,500	2,696	..	255
*1	..	..	*1	*25,513	*22,500	2,726	..	287
*1	..	..	*1	25,269	21,902	2,756	..	611
*1	..	..	*1	23,964	20,079	2,778	..	1,107
..	..	..	..	7,671	2,960	4,701	..	*10
..	..	..	..	7,731	2,960	4,761	..	*10
..	..	..	..	8,160	3,360	4,790	..	*10
..	..	..	..	8,160	3,360	4,790	..	*10
7,461	6,656	..	805	103,742	68,903	6,485	23,116	5,238
9,037	8,247	..	790	113,913	78,130	6,489	22,529	6,765
9,862	8,875	..	987	117,613	80,138	6,490	21,850	9,135
9,203	7,963	..	1,240	122,901	80,211	6,508	23,250	12,932
22	20	..	*2	18,870	18,870	..	..	..
22	20	..	*2	18,743	18,743	..	..	..
74	70	..	*4	18,793	18,793	..	..	..
175	*70	..	105	19,196	19,196	..	..	..
*6	*6	..	..	*3,780	*716	*3,064	..	..
*6	*6	..	..	3,863	*728	3,135	..	..
*6	*6	..	..	*3,863	*728	*3,135	..	..
6	6	..	..	3,863	728	3,135	..	..
..	..	..	..	6,460	1,918	4,538	..	4
..	..	..	..	6,931	1,903	5,006	..	22
..	..	..	..	7,187	1,909	5,256	..	22
..	..	..	..	8,014	*1,909	6,083	..	22
*1,073	*1,050	..	23	2,589	2,309	280	..	..
*1,136	*1,100	..	36	2,562	2,309	*253	..	..
*1,142	*1,100	..	42	2,562	2,309	*253	..	..
*1,179	*1,100	..	79	2,562	2,309	*253	..	..
3,301	2,506	2	793	29,789	23,226	6,135	..	427
2,442	2,438	2	2	30,892	24,410	6,126	..	356
2,676	1,952	0	723	31,714	24,479	6,168	..	1,066
2,454	1,762	0	692	*31,699	*24,498	6,245	..	956
125	125	..	..	149	141	..	..	8
*125	*125	..	..	*152	*141	..	..	11
*125	*125	..	..	*251	*240	..	..	11
210	210	..	..	334	319	..	..	15
39	*10	29	..	*1,160	*1,093	..	..	67
39	*10	29	..	1,272	1,122	..	..	150
41	*10	31	..	*1,420	*1,200	..	..	220
41	*10	31	..	*1,445	*1,200	..	..	245



Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Myanmar	2016	5,390	2,135	3,255	..	..	..	..
	2017	5,642	2,387	3,255	..	..	..	..
	2018	5,838	2,536	3,262	..	..	40	..
	2019	7,129	3,827	3,262	..	..	40	..
Nepal	2016	979	53	919	..	*6	*1	..
	2017	*1,142	53	*1,081	..	*6	*1	..
	2018	1,190	53	1,129	..	*6	*1	..
	2019	1,198	53	1,129	..	*14	*1	..
Oman	2016	8,165	8,163	..	..	..	2	..
	2017	8,228	8,220	..	..	..	8	..
	2018	8,450	8,442	..	..	..	8	..
	2019	8,501	8,442	..	..	50	9	..
Other Asia	2016	49,618	37,544	4,691	5,144	976	1,263	..
	2017	*51,183	*38,576	4,691	5,144	986	1,786	..
	2018	52,484	39,510	4,694	4,508	1,016	2,756	0
	2019	55,958	41,960	4,695	3,872	1,157	4,274	0
Pakistan	2016	26,698	17,874	7,115	750	340	400	219
	2017	31,246	21,518	7,115	1,090	792	400	331
	2018	34,875	24,325	7,270	1,430	1,042	436	372
	2019	37,681	24,386	9,757	1,430	1,242	436	430
Philippines	2016	21,869	15,127	3,634	..	427	765	1,916
	2017	23,341	16,470	3,643	..	427	885	1,916
	2018	24,464	17,480	3,717	..	427	896	1,944
	2019	26,187	19,135	3,776	..	427	921	1,928
Qatar	2016	*8,559	*8,559	..	..	..	..	..
	2017	*10,170	*10,170	..	..	..	..	..
	2018	*10,590	*10,590	..	..	..	..	..
	2019	*10,590	*10,590	..	..	..	..	..
Saudi Arabia	2016	74,726	74,702	..	..	0	24	..
	2017	80,508	80,471	..	..	3	34	..
	2018	*77,028	*76,941	..	..	3	84	..
	2019	*76,785	*76,373	..	..	3	409	..
Singapore	2016	13,445	13,348	..	..	..	97	..
	2017	13,612	13,500	..	..	..	112	..
	2018	13,614	13,500	..	..	..	115	..
	2019	12,563	12,292	..	..	..	271	..
Sri Lanka	2016	4,010	2,088	1,722	..	129	71	..
	2017	4,094	2,144	1,720	..	128	102	..
	2018	4,124	2,069	1,793	..	128	134	..
	2019	*4,334	*2,182	1,809	..	128	*215	..
State of Palestine	2016	185	160	..	..	..	25	..
	2017	190	160	..	..	..	30	..
	2018	200	160	..	..	..	40	..
	2019	240	160	..	..	..	80	..
Syrian Arab Republic	2016	9,687	8,192	1,494	..	1	..	..
	2017	*9,691	*8,199	1,490	..	1	1	..
	2018	10,059	8,567	1,490	..	1	1	..
	2019	10,060	8,567	1,490	..	1	2	..
Tajikistan	2016	6,577	719	5,858	..	..	..	..
	2017	*6,577	*719	*5,858	..	..	..	..
	2018	*6,577	*719	*5,858	..	..	..	..
	2019	6,451	718	5,733	..	..	..	..
Thailand	2016	43,147	34,721	3,467	..	*507	*4,451	0
	2017	44,024	35,226	3,467	..	*628	*4,702	0
	2018	45,179	35,426	*3,682	..	*1,103	*4,967	0
	2019	45,260	35,082	*3,682	..	*1,507	*4,988	0

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
800	628	172	..	4,590	1,507	3,083	..	..
1,354	1,182	172	..	4,288	1,205	3,083	..	..
2,694	1,543	1,111	40	3,144	993	2,151	..	..
3,719	2,568	1,111	40	3,410	1,259	2,151	..	..
*100	..	*100	..	879	53	819	..	*7
*100	..	*100	0	*1,041	53	*981	..	*7
*124	..	*124	0	1,065	53	1,005	..	*7
*124	..	*124	0	1,074	53	1,005	..	*15
..	..	..	..	8,165	8,163	..	..	2
..	..	..	..	8,228	8,220	..	..	8
..	..	..	..	8,450	8,442	..	..	8
..	..	..	..	8,501	8,442	..	..	59
17,113	15,186	..	1,927	32,505	22,358	4,691	5,144	312
17,536	15,076	..	2,460	*33,647	*23,500	4,691	5,144	312
19,028	15,577	..	3,451	33,456	23,933	4,694	4,508	321
20,529	15,534	..	4,995	35,429	26,426	4,695	3,872	436
686	467	..	219	26,012	17,407	7,115	750	740
812	481	..	331	30,434	21,037	7,115	1,090	1,192
863	491	..	372	34,012	23,834	7,270	1,430	1,478
920	490	..	430	36,761	23,896	9,757	1,430	1,678
*444	*428	*16	..	21,425	14,699	3,618	..	3,108
*613	*597	*16	..	22,728	15,873	3,627	..	3,228
*649	*633	*16	..	23,815	16,847	3,701	..	3,267
*656	*640	*16	..	25,531	18,495	3,760	..	3,276
*7,275	*7,275	..	..	*1,284	*1,284	..	..	..
*8,644	*8,644	..	..	*1,526	*1,526	..	..	..
*9,038	*9,038	..	..	*1,553	*1,553	..	..	..
*9,038	*9,038	..	..	*1,553	*1,553	..	..	..
12,124	12,124	..	..	62,602	62,578	..	..	24
14,626	14,626	..	..	65,882	65,845	..	..	37
*19,235	*19,235	..	..	*57,793	*57,706	..	..	87
*33,600	*33,600	..	..	*43,185	*42,773	..	..	412
418	418	..	..	13,027	12,931	..	..	97
569	569	..	..	13,043	12,931	..	..	112
569	569	..	..	13,046	12,931	..	..	115
552	552	..	..	12,011	11,740	..	..	271
412	24	338	50	3,598	2,064	1,384	..	150
436	29	356	51	3,658	2,115	1,364	..	179
482	*32	394	*56	3,642	2,037	1,399	..	206
534	*34	410	*90	*3,800	*2,148	1,399	..	253
33	20	..	13	153	140	..	..	13
35	20	..	15	155	140	..	..	15
40	20	..	20	160	140	..	..	20
60	20	..	40	180	140	..	..	40
912	912	..	..	8,775	7,280	1,494	..	1
*912	*912	..	..	*8,779	*7,287	1,490	..	2
972	972	..	..	9,087	7,595	1,490	..	2
972	972	..	..	9,088	7,595	1,490	..	3
..	..	..	..	6,577	719	5,858	..	..
..	..	..	..	*6,577	*719	*5,858	..	..
..	..	..	..	*6,577	*719	*5,858	..	..
..	..	..	..	6,451	718	5,733	..	..
*16,964	*14,949	*15	*2,000	26,183	19,772	3,452	..	*2,958
*16,964	*14,949	*15	*2,000	27,060	20,277	3,452	..	*3,330
*16,964	*14,949	*15	*2,000	28,215	20,477	*3,667	..	*4,071
16,964	14,949	*15	*2,000	28,296	20,133	*3,667	..	*4,495

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Timor-Leste	2016	283	283	0	..	..	1	..
	2017	283	283	0	..	..	1	..
	2018	283	283	0	..	..	1	..
	2019	283	283	0	..	..	1	..
Turkey	2016	78,497	44,278	26,681	..	5,751	833	954
	2017	85,201	46,762	27,273	..	6,516	3,421	1,229
	2018	88,551	46,712	28,291	..	7,006	5,062	1,480
	2019	91,267	47,284	28,503	..	7,591	5,995	1,894
Turkmenistan	2016	4,675	4,674	1	..	..	..	..
	2017	5,201	5,200	1	..	..	..	..
	2018	5,201	5,200	1	..	..	..	..
	2019	*5,201	*5,200	1	..	..	..	..
United Arab Emirates	2016	28,761	28,638	..	..	..	123	..
	2017	30,371	30,048	..	..	..	323	..
	2018	*30,934	*30,349	..	..	..	585	..
	2019	*33,042	*31,287	..	..	..	1,755	..
Uzbekistan	2016	14,104	12,222	1,880	..	..	2	..
	2017	14,378	12,516	1,858	..	1	3	..
	2018	14,196	12,276	1,915	..	1	4	..
	2019	15,948	14,032	1,908	..	*5	4	..
Viet Nam	2016	*43,416	*25,783	17,461	..	166	6	..
	2017	*44,334	*25,953	18,161	..	211	9	..
	2018	*44,815	*26,125	18,341	..	243	106	..
	2019	55,187	30,690	18,421	..	381	5,695	..
Yemen	2016	1,769	1,519	..	..	..	*250	..
	2017	*1,769	*1,519	..	..	..	*250	..
	2018	*1,769	*1,519	..	..	..	*250	..
	2019	*1,769	*1,519	..	..	..	250	..
<b>Europe</b>	<b>2016</b>	<b>1,402,025</b>	<b>702,347</b>	<b>268,919</b>	<b>166,172</b>	<b>155,585</b>	<b>106,059</b>	<b>2,943</b>
	<b>2017</b>	<b>1,419,304</b>	<b>696,723</b>	<b>270,875</b>	<b>165,905</b>	<b>170,470</b>	<b>112,267</b>	<b>3,065</b>
	<b>2018</b>	<b>1,451,263</b>	<b>706,203</b>	<b>271,914</b>	<b>166,808</b>	<b>181,849</b>	<b>121,372</b>	<b>3,118</b>
	<b>2019</b>	<b>1,470,652</b>	<b>691,460</b>	<b>273,574</b>	<b>166,682</b>	<b>196,355</b>	<b>139,487</b>	<b>3,094</b>
Albania	2016	1,925	*123	1,801	..	..	1	..
	2017	2,172	123	2,048	..	..	1	..
	2018	2,229	123	2,105	..	..	1	..
	2019	2,361	123	2,223	..	..	15	..
Andorra	2016	51	5	46	..	..	0	..
	2017	52	5	46	..	..	1	..
	2018	53	5	46	..	..	2	..
	2019	53	5	46	..	..	2	..
Austria	2016	25,217	7,273	14,117	..	2,730	1,096	1
	2017	24,920	6,613	14,150	..	2,887	1,269	1
	2018	25,637	6,532	14,516	..	3,133	1,455	1
	2019	25,901	6,377	14,597	..	3,224	1,702	1
Belarus	2016	10,007	9,826	72	..	62	47	..
	2017	10,146	9,884	98	..	84	80	..
	2018	10,151	9,808	97	..	92	154	..
	2019	10,183	9,820	97	..	112	154	..
Belgium	2016	21,670	8,629	1,425	5,913	2,370	3,329	4
	2017	22,226	8,478	1,417	5,918	2,788	3,621	4
	2018	22,805	8,197	1,418	5,918	3,268	4,000	4
	2019	24,061	8,213	1,414	5,930	3,863	4,637	4
Bosnia and Herzegovina	2016	4,364	2,200	2,155	..	..	9	..
	2017	4,522	2,295	2,211	..	..	16	..
	2018	4,440	2,135	2,236	..	51	18	..
	2019	4,485	2,137	2,239	..	87	22	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	283	283	0	..	1
..	..	..	..	283	283	0	..	1
..	..	..	..	283	283	0	..	1
..	..	..	..	283	283	0	..	1
5,277	4,223	550	504	73,220	40,055	26,131	..	7,034
6,190	4,417	551	1,222	79,011	42,345	26,722	..	9,944
6,437	4,450	551	1,436	82,114	42,262	27,740	..	12,112
7,588	5,222	552	1,814	83,679	42,062	27,951	..	13,666
..	..	..	..	4,675	4,674	1	..	..
..	..	..	..	5,201	5,200	1	..	..
..	..	..	..	5,201	5,200	1	..	..
..	..	..	..	*5,201	*5,200	1	..	..
..	..	..	..	28,761	28,638	..	..	123
..	..	..	..	30,371	30,048	..	..	323
..	..	..	..	*30,934	*30,349	..	..	585
..	..	..	..	*33,042	*31,287	..	..	1,755
..	..	..	..	14,104	12,222	1,880	..	2
..	..	..	..	14,378	12,516	1,858	..	4
..	..	..	..	14,196	12,276	1,915	..	4
..	..	..	..	15,948	14,032	1,908	..	*9
*5,391	*5,055	*330	*6	*38,025	*20,728	17,131	..	166
*5,483	*5,125	*352	*6	*38,851	*20,828	17,809	..	214
*5,483	*5,125	*352	*6	*39,332	*21,000	17,989	..	343
*5,483	*5,125	*352	*6	49,704	25,565	18,069	..	6,070
*367	*117	..	*250	1,402	1,402	..	..	..
*367	*117	..	*250	*1,402	*1,402	..	..	..
*367	*117	..	*250	*1,402	*1,402	..	..	..
367	*117	..	250	*1,402	*1,402	..	..	..
<b>119,726</b>	<b>89,261</b>	<b>3,426</b>	<b>27,039</b>	<b>1,282,299</b>	<b>613,086</b>	<b>265,493</b>	<b>166,172</b>	<b>237,549</b>
<b>123,132</b>	<b>90,782</b>	<b>3,394</b>	<b>28,956</b>	<b>1,296,172</b>	<b>605,942</b>	<b>267,480</b>	<b>165,905</b>	<b>256,846</b>
<b>130,148</b>	<b>94,932</b>	<b>3,380</b>	<b>31,836</b>	<b>1,321,115</b>	<b>611,270</b>	<b>268,534</b>	<b>166,808</b>	<b>274,503</b>
<b>136,221</b>	<b>95,508</b>	<b>3,400</b>	<b>37,313</b>	<b>1,334,431</b>	<b>595,952</b>	<b>270,174</b>	<b>166,682</b>	<b>301,623</b>
*25	*25	..	..	1,900	*98	1,801	..	1
25	25	..	..	2,147	98	2,048	..	1
25	25	..	..	2,204	98	2,105	..	1
25	25	..	..	2,336	98	2,223	..	15
..	..	..	..	51	5	46	..	0
..	..	..	..	52	5	46	..	1
..	..	..	..	53	5	46	..	2
..	..	..	..	53	5	46	..	2
2,258	1,712	546	..	22,959	5,561	13,571	..	3,827
1,773	1,341	432	..	23,147	5,272	13,718	..	4,157
1,716	1,288	428	..	23,921	5,244	14,088	..	4,589
2,219	1,784	435	..	23,682	4,593	14,162	..	4,927
852	841	4	7	9,155	8,985	68	..	102
817	806	3	8	9,329	9,078	95	..	156
969	899	2	68	9,182	8,909	95	..	178
977	897	2	78	9,206	8,923	95	..	188
4,819	1,467	..	3,352	16,851	7,162	1,425	5,913	2,351
5,109	1,456	..	3,653	17,117	7,022	1,417	5,918	2,760
5,561	1,529	..	4,032	17,244	6,668	1,418	5,918	3,240
6,405	1,735	..	4,670	17,656	6,478	1,414	5,930	3,834
*230	*230	..	..	4,134	1,970	2,155	..	9
*230	*230	..	..	4,292	2,065	2,211	..	16
70	70	..	..	4,370	2,065	2,236	..	69
71	71	..	..	4,414	2,066	2,239	..	109

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Bulgaria	2016	10,904	3,822	3,223	1,967	699	1,028	165
	2017	11,069	3,785	3,372	1,967	698	1,036	211
	2018	11,530	4,220	3,379	2,008	699	1,033	191
	2019	11,433	4,097	3,378	2,006	703	1,048	*200
Croatia	2016	4,794	2,082	2,175	..	482	56	..
	2017	4,970	2,141	2,193	..	576	60	..
	2018	5,006	2,142	2,200	..	586	68	10
	2019	4,712	1,771	2,200	..	646	85	10
Czechia	2016	21,989	13,087	2,262	4,290	282	2,068	..
	2017	22,267	13,334	2,265	4,290	308	2,070	..
	2018	22,295	13,350	2,264	4,290	316	2,075	..
	2019	22,011	13,031	2,265	4,290	339	2,086	..
Denmark	2016	14,226	8,120	9	..	5,246	851	..
	2017	14,318	7,916	7	..	5,489	906	..
	2018	14,984	7,864	7	..	6,115	998	..
	2019	15,166	7,976	7	..	6,103	1,080	..
Estonia	2016	2,577	2,251	6	..	310	10	..
	2017	2,542	2,208	7	..	312	15	..
	2018	2,819	2,470	7	..	310	32	..
	2019	2,746	2,303	6	..	316	121	..
Faeroe Islands	2016	120	67	38	..	14	..	..
	2017	121	69	38	..	14	..	..
	2018	121	69	38	..	14	..	..
	2019	131	78	38	..	14	0	..
Finland	2016	16,289	8,672	3,249	2,764	1,565	39	..
	2017	17,174	8,997	3,272	2,779	2,044	82	..
	2018	17,154	8,902	3,287	2,784	2,041	140	..
	2019	17,472	8,899	3,273	2,794	2,284	222	..
France	2016	133,151	24,895	25,621	63,130	11,567	7,702	236
	2017	133,089	21,907	25,707	63,130	13,499	8,610	235
	2018	135,104	21,422	25,727	63,130	14,900	9,691	234
	2019	136,242	19,791	25,869	63,130	16,427	10,795	230
Germany	2016	208,217	95,716	11,207	10,799	49,435	40,679	381
	2017	215,326	95,134	11,120	10,799	55,580	42,293	400
	2018	228,795	103,030	10,684	10,799	58,721	45,158	403
	2019	231,821	101,389	10,733	9,525	60,721	49,047	406
Gibraltar	2016	*43	*43	..	..	..	..	0
	2017	*43	*43	..	..	..	..	0
	2018	*43	*43	..	..	..	..	0
	2019	*43	*43	..	..	..	..	0
Greece	2016	19,165	10,799	3,392	..	2,370	2,604	..
	2017	19,427	10,805	3,392	..	2,624	2,606	..
	2018	19,582	10,644	3,409	..	2,877	2,652	..
	2019	20,479	10,644	3,412	..	3,589	2,834	..
Guernsey	2016	*115	*115	..	..	..	..	..
	2017	*132	*132	..	..	..	..	..
	2018	*132	*132	..	..	..	0	..
	2019	*132	*132	..	..	..	0	..
Hungary	2016	8,758	6,100	57	2,000	329	235	37
	2017	8,860	6,090	57	2,000	329	344	40
	2018	9,256	6,088	57	2,013	329	728	41
	2019	9,914	6,079	58	2,013	323	1,400	41
Iceland	2016	2,772	117	1,987	..	3	..	665
	2017	2,823	116	1,995	..	2	..	710
	2018	2,973	116	2,099	..	2	..	756
	2019	2,979	116	2,104	..	2	..	756

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
352	187	..	165	10,552	3,635	3,223	1,967	1,727
445	234	..	211	10,624	3,551	3,372	1,967	1,734
425	234	..	191	11,105	3,986	3,379	2,008	1,732
*361	161	..	*200	11,072	3,936	3,378	2,006	1,751
*167	*165	*2	..	4,627	1,917	2,173	..	537
160	157	3	..	4,811	1,984	2,190	..	636
165	162	3	..	4,841	1,980	2,197	..	664
165	162	3	..	4,547	1,609	2,197	..	741
1,893	1,702	191	..	20,096	11,385	2,071	4,290	2,350
1,936	1,752	184	..	20,331	11,582	2,081	4,290	2,378
1,928	1,745	183	..	20,367	11,605	2,081	4,290	2,391
1,925	1,741	184	..	20,086	11,290	2,081	4,290	2,425
1,470	619	..	851	12,756	7,501	9	..	5,246
1,536	630	..	906	12,782	7,286	7	..	5,489
1,639	641	..	998	13,345	7,223	7	..	6,115
1,672	592	..	1,080	13,494	7,384	7	..	6,103
31	25	..	6	2,546	2,226	6	..	314
27	25	..	2	2,515	2,183	7	..	325
26	25	..	1	2,793	2,445	7	..	341
24	23	..	1	2,722	2,280	6	..	436
..	..	..	..	120	67	38	..	14
..	..	..	..	121	69	38	..	14
..	..	..	..	121	69	38	..	14
..	..	..	..	131	78	38	..	14
2,068	1,846	186	36	14,221	6,826	3,063	2,764	1,568
2,306	2,039	188	79	14,868	6,958	3,084	2,779	2,047
2,364	2,038	189	137	14,790	6,864	3,098	2,784	2,044
2,462	2,035	208	219	15,010	6,864	3,065	2,794	2,287
6,314	3,830	186	2,298	126,837	21,065	25,435	63,130	17,207
6,467	3,703	190	2,575	126,622	18,204	25,517	63,130	19,770
7,700	4,587	185	2,929	127,404	16,836	25,542	63,130	21,896
8,206	4,725	194	3,287	128,036	15,066	25,674	63,130	24,166
10,588	10,307	43	238	197,629	85,409	11,164	10,799	90,257
11,579	11,310	42	227	203,747	83,824	11,078	10,799	98,046
11,988	11,729	32	227	216,807	91,301	10,652	10,799	104,055
12,034	11,819	35	180	219,787	89,570	10,698	9,525	109,994
..	..	..	..	*43	*43	..	..	0
..	..	..	..	*43	*43	..	..	0
..	..	..	..	*43	*43	..	..	0
..	..	..	..	*43	*43	..	..	0
568	568	..	..	18,597	10,231	3,392	..	4,974
571	571	..	..	18,856	10,234	3,392	..	5,230
568	568	..	..	19,014	10,076	3,409	..	5,529
568	568	..	..	19,911	10,076	3,412	..	6,423
..	..	..	..	*115	*115	..	..	..
..	..	..	..	*132	*132	..	..	..
..	..	..	..	*132	*132	..	..	0
..	..	..	..	*132	*132	..	..	0
468	222	..	246	8,290	5,878	57	2,000	355
592	253	..	339	8,268	5,837	57	2,000	374
735	251	..	484	8,521	5,837	57	2,013	614
1,025	286	..	739	8,889	5,793	58	2,013	1,025
..	..	..	..	2,772	117	1,987	..	668
..	..	..	..	2,823	116	1,995	..	712
..	..	..	..	2,973	116	2,099	..	758
..	..	..	..	2,979	116	2,104	..	758

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Ireland	2016	10,017	6,696	529	..	2,786	6	..
	2017	10,608	6,745	529	..	3,318	16	..
	2018	10,982	6,752	529	..	3,676	24	..
	2019	11,137	6,417	529	..	4,160	31	..
Isle of Man	2016	184	183	1	..	..	..	..
	2017	187	186	1	..	..	..	..
	2018	187	186	1	..	..	..	..
	2019	187	186	1	..	..	..	..
Italy	2016	114,162	62,096	22,298	..	9,384	19,283	1,101
	2017	114,240	61,289	22,426	..	9,737	19,682	1,106
	2018	115,220	61,276	22,498	..	10,230	20,108	1,108
	2019	116,435	61,284	22,541	..	10,679	20,865	1,066
Jersey	2016	78	78	..	..	..	..	..
	2017	78	78	..	..	..	..	..
	2018	78	78	..	..	..	..	..
	2019	*78	*78	..	..	..	..	..
Kosovo	2016	1,009	915	86	..	1	7	..
	2017	1,409	1,288	80	..	34	7	..
	2018	1,409	1,288	80	..	34	7	..
	2019	*1,602	*1,288	213	..	91	11	..
Latvia	2016	2,927	1,292	1,564	..	70	1	0
	2017	2,941	1,299	1,564	..	77	1	..
	2018	2,915	1,270	1,565	..	78	2	..
	2019	2,938	1,270	1,587	..	78	3	..
Liechtenstein	2016	*23	*1	*10	..	..	*12	..
	2017	*24	*1	*10	..	..	*13	..
	2018	*26	*1	*10	..	..	*15	..
	2019	*27	*1	*10	..	..	*16	..
Lithuania	2016	3,665	2,184	877	..	509	70	25
	2017	3,326	1,832	877	..	518	74	25
	2018	3,354	1,837	877	..	533	82	25
	2019	3,378	1,839	877	..	534	103	25
Luxembourg	2016	1,710	138	1,330	..	120	122	..
	2017	1,709	130	1,331	..	120	128	..
	2018	1,715	131	1,330	..	123	131	..
	2019	1,778	152	1,330	..	136	160	..
Malta	2016	573	480	..	..	0	94	..
	2017	706	595	..	..	0	112	..
	2018	726	595	..	..	0	131	..
	2019	748	595	..	..	0	154	..
Montenegro	2016	870	219	651	..	..	..	..
	2017	949	225	652	..	72	..	..
	2018	999	225	652	..	118	3	..
	2019	1,001	225	652	..	118	5	..
Netherlands	2016	34,262	27,266	37	485	4,257	2,135	82
	2017	33,822	26,105	37	485	4,202	2,911	82
	2018	35,110	25,505	37	485	4,393	4,608	82
	2019	37,086	24,821	37	485	4,484	7,177	82
North Macedonia	2016	1,823	1,109	660	..	37	17	..
	2017	1,836	1,111	671	..	37	17	..
	2018	1,839	1,111	674	..	37	17	..
	2019	1,844	1,112	678	..	37	17	..
Norway	2016	33,810	1,073	31,817	..	883	..	37
	2017	34,230	1,074	31,912	..	1,207	..	37
	2018	35,418	1,073	32,530	..	1,710	68	37
	2019	36,912	1,074	32,797	..	2,914	90	37

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
367	345	..	22	9,650	6,351	529	..	2,770
385	350	..	36	10,222	6,395	529	..	3,298
403	356	..	47	10,578	6,396	529	..	3,653
421	364	..	57	10,716	6,053	529	..	4,134
8	8	..	..	176	175	1	..	..
8	8	..	..	180	179	1	..	..
8	8	..	..	180	179	1	..	..
8	8	..	..	180	179	1	..	..
4,834	4,658	117	59	109,328	57,438	22,181	..	29,709
5,034	4,863	119	52	109,206	56,426	22,307	..	30,473
5,521	5,347	105	69	109,699	55,929	22,393	..	31,377
5,432	5,256	106	70	111,003	56,028	22,435	..	32,540
*28	*28	..	..	50	50	..	..	..
*28	*28	..	..	50	50	..	..	..
*28	*28	..	..	50	50	..	..	..
*28	*28	..	..	*50	*50	..	..	..
..	..	..	..	1,009	915	86	..	8
..	..	..	..	1,409	1,288	80	..	40
..	..	..	..	1,409	1,288	80	..	40
0	..	..	0	*1,602	*1,288	213	..	101
44	41	1	2	2,883	1,251	1,563	..	69
33	31	1	1	2,908	1,268	1,563	..	77
34	30	2	2	2,881	1,239	1,563	..	78
34	29	1	3	2,904	1,241	1,585	..	78
..	..	..	..	*23	*1	*10	..	*12
..	..	..	..	*24	*1	*10	..	*13
..	..	..	..	*26	*1	*10	..	*15
..	..	..	..	*27	*1	*10	..	*16
278	253	..	25	3,387	1,931	877	..	579
280	255	..	25	3,046	1,577	877	..	592
280	255	..	25	3,074	1,582	877	..	615
282	257	..	25	3,096	1,582	877	..	637
201	77	2	122	1,509	61	1,328	..	120
186	55	2	128	1,523	75	1,328	..	120
185	52	2	131	1,530	79	1,328	..	123
215	53	2	160	1,563	99	1,328	..	136
98	5	..	94	475	475	..	..	..
116	5	..	112	590	590	..	..	..
136	5	..	131	590	590	..	..	..
158	5	..	154	590	590	..	..	..
..	..	..	..	870	219	651	..	..
..	..	..	..	949	225	652	..	72
..	..	..	..	999	225	652	..	121
..	..	..	..	1,001	225	652	..	123
7,543	4,920	..	2,623	26,719	22,346	37	485	3,851
8,265	4,919	..	3,346	25,557	21,186	37	485	3,849
10,144	5,444	..	4,700	24,966	20,061	37	485	4,383
12,314	5,405	..	6,909	24,772	19,416	37	485	4,834
0	0	..	..	1,823	1,109	660	..	54
0	0	..	..	1,836	1,111	671	..	54
..	..	..	..	1,839	1,111	674	..	54
..	..	..	..	1,844	1,112	678	..	54
590	553	..	37	33,220	520	31,817	..	883
576	539	..	37	33,654	535	31,912	..	1,207
657	552	..	105	34,761	521	32,530	..	1,710
679	552	..	127	36,233	522	32,797	..	2,914



Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Poland	2016	38,105	29,783	2,386	..	5,747	187	2
	2017	42,850	34,412	2,390	..	5,758	287	2
	2018	43,046	34,314	2,391	..	5,766	562	12
	2019	43,440	33,638	2,397	..	5,838	1,539	28
Portugal	2016	20,613	7,990	6,960	..	5,125	513	25
	2017	20,933	7,975	7,226	..	5,124	579	30
	2018	21,186	8,080	7,236	..	5,172	667	30
	2019	21,575	8,160	7,262	..	5,223	901	29
Republic of Moldova	2016	463	443	16	..	2	2	..
	2017	477	450	16	..	9	2	..
	2018	478	425	16	..	34	3	..
	2019	486	430	16	..	35	5	..
Romania	2016	23,580	11,038	6,734	1,411	3,025	1,372	..
	2017	23,572	11,067	6,691	1,411	3,029	1,374	..
	2018	23,553	11,023	6,701	1,411	3,032	1,386	..
	2019	20,908	8,366	6,686	1,411	3,038	1,407	..
Russian Federation	2016	264,730	185,815	51,016	27,189	96	536	78
	2017	267,639	187,701	51,241	27,952	98	574	74
	2018	271,600	190,215	51,333	29,140	161	678	74
	2019	*275,820	*191,946	*51,800	30,300	*600	*1,100	*74
Serbia	2016	7,410	4,352	3,030	..	17	11	..
	2017	7,416	4,343	3,038	..	25	10	..
	2018	8,066	4,851	2,936	..	264	*15	..
	2019	7,896	4,413	3,074	..	398	11	..
Slovakia	2016	7,742	2,710	2,524	1,940	3	533	32
	2017	7,671	2,645	2,523	1,940	4	528	31
	2018	7,625	2,651	2,528	1,940	4	471	31
	2019	7,724	2,639	2,527	1,940	4	590	24
Slovenia	2016	3,536	1,318	1,293	688	5	232	..
	2017	3,619	1,332	1,347	688	5	247	..
	2018	3,798	1,514	1,344	688	5	247	..
	2019	3,820	1,512	1,351	688	5	264	..
Spain	2016	105,945	48,400	20,080	7,399	22,990	7,017	59
	2017	103,863	46,456	20,079	7,117	23,124	7,027	59
	2018	103,737	46,009	20,080	7,117	23,405	7,068	59
	2019	109,970	45,821	20,114	7,117	25,583	11,277	59
Sweden	2016	41,511	8,689	16,466	9,768	6,435	153	..
	2017	39,798	7,442	16,502	8,999	6,611	244	..
	2018	41,223	8,408	16,431	8,656	7,300	428	..
	2019	42,824	8,343	16,462	8,624	8,681	714	..
Switzerland	2016	20,839	961	14,806	3,333	75	1,664	..
	2017	21,614	946	15,354	3,333	75	1,906	..
	2018	22,063	940	15,542	3,333	75	2,173	..
	2019	22,422	942	15,574	3,333	75	2,498	..
Ukraine	2016	57,335	36,475	6,172	13,835	428	425	..
	2017	52,764	31,492	6,213	13,835	465	759	..
	2018	51,508	29,753	6,243	13,835	476	1,201	..
	2019	51,444	28,535	6,325	13,835	796	1,953	..
United Kingdom	2016	98,749	56,702	4,733	9,261	16,126	11,914	13
	2017	104,824	58,430	4,770	9,261	19,585	12,760	18
	2018	108,294	59,400	4,773	9,261	21,767	13,073	20
	2019	104,847	53,350	4,773	9,261	24,095	13,346	22
Oceania	2016	79,932	52,811	14,179	..	5,076	6,853	1,014
	2017	79,460	51,123	14,189	..	5,580	7,555	1,014
	2018	81,944	51,341	14,478	..	6,211	8,876	1,037
	2019	86,695	50,841	14,490	..	7,050	13,277	1,037

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,078	1,888	1	189	36,027	27,895	2,385	..	5,747
2,773	2,483	1	289	40,077	31,929	2,390	..	5,758
3,669	3,094	1	574	39,377	31,220	2,391	..	5,766
4,680	3,112	1	1,567	38,760	30,526	2,397	..	5,838
2,043	1,781	6	256	18,570	6,209	6,954	..	5,407
2,084	1,769	6	309	18,849	6,205	7,220	..	5,424
2,236	1,872	6	358	18,950	6,208	7,230	..	5,511
2,409	1,879	6	524	19,166	6,281	7,256	..	5,629
113	113	..	..	350	330	16	..	4
124	120	..	4	353	330	16	..	7
120	95	..	25	358	330	16	..	12
123	100	..	23	363	330	16	..	17
3,164	2,151	90	923	20,416	8,887	6,644	1,411	3,474
3,022	2,159	81	782	20,550	8,908	6,610	1,411	3,621
2,985	2,150	83	752	20,568	8,873	6,618	1,411	3,666
2,270	1,696	83	491	18,638	6,670	6,603	1,411	3,954
24,471	24,021	450	..	240,259	161,794	50,566	27,189	710
25,250	24,789	461	..	242,389	162,912	50,779	27,952	746
25,623	25,161	462	..	245,977	165,054	50,871	29,140	913
*25,622	*25,160	*462	..	*250,198	*166,786	*51,338	30,300	*1,774
129	129	..	..	7,281	4,223	3,030	..	28
120	120	..	..	7,296	4,223	3,038	..	35
118	118	..	..	7,948	4,733	2,936	..	279
152	152	..	..	7,744	4,261	3,074	..	409
1,099	604	31	464	6,643	2,106	2,493	1,940	104
1,076	633	30	413	6,595	2,012	2,493	1,940	150
1,107	769	32	306	6,518	1,882	2,496	1,940	200
1,201	766	33	402	6,523	1,873	2,494	1,940	216
388	46	116	226	3,148	1,272	1,177	688	11
402	46	116	240	3,217	1,286	1,231	688	12
403	47	116	240	3,395	1,467	1,228	688	12
422	44	121	257	3,398	1,468	1,230	688	12
6,589	6,157	369	63	99,356	42,243	19,711	7,399	30,003
6,609	6,157	369	83	97,254	40,299	19,710	7,117	30,127
6,683	6,210	369	104	97,054	39,799	19,711	7,117	30,428
6,501	5,979	369	153	103,469	39,842	19,745	7,117	36,765
*1,206	*1,194	12	..	40,305	7,495	16,454	9,768	6,588
1,285	1,267	18	..	38,513	6,175	16,484	8,999	6,855
1,448	1,430	18	..	39,775	6,978	16,413	8,656	7,728
1,411	1,393	18	..	41,413	6,950	16,444	8,624	9,395
3,103	744	695	1,664	17,736	217	14,111	3,333	75
3,328	689	733	1,906	18,286	257	14,621	3,333	75
3,607	683	751	2,173	18,456	257	14,791	3,333	75
3,910	683	729	2,498	18,512	259	14,845	3,333	75
3,469	3,462	5	2	53,866	33,013	6,167	13,835	851
2,265	2,227	7	31	50,499	29,265	6,206	13,835	1,193
2,139	2,091	5	43	49,369	27,662	6,238	13,835	1,634
2,171	2,071	..	100	49,273	26,464	6,325	13,835	2,649
25,780	12,338	373	13,069	72,969	44,364	4,360	9,261	14,984
26,310	12,739	409	13,163	78,514	45,691	4,361	9,261	19,201
26,735	13,345	407	12,984	81,559	46,055	4,366	9,261	21,877
27,639	13,892	408	13,339	77,208	39,458	4,365	9,261	24,125
<b>12,142</b>	<b>5,644</b>	<b>105</b>	<b>6,392</b>	<b>67,791</b>	<b>47,167</b>	<b>14,073</b>	..	<b>6,551</b>
<b>12,651</b>	<b>5,555</b>	<b>99</b>	<b>6,998</b>	<b>66,809</b>	<b>45,568</b>	<b>14,090</b>	..	<b>7,152</b>
<b>13,373</b>	<b>5,854</b>	<b>98</b>	<b>7,421</b>	<b>68,571</b>	<b>45,487</b>	<b>14,380</b>	..	<b>8,704</b>
<b>15,480</b>	<b>6,219</b>	<b>98</b>	<b>9,163</b>	<b>71,215</b>	<b>44,623</b>	<b>14,392</b>	..	<b>12,200</b>

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
American Samoa	2016	46	42	..	..	..	4	..
	2017	46	42	..	..	..	4	..
	2018	47	42	..	..	..	5	..
	2019	47	42	..	..	..	5	..
Australia	2016	67,142	47,857	8,271	..	4,324	6,689	1
	2017	66,632	46,194	8,271	..	4,812	7,354	1
	2018	68,902	46,311	8,523	..	5,442	8,626	0
	2019	73,528	45,756	8,523	..	6,279	12,970	0
Cook Islands	2016	*15	*11	..	..	..	4	..
	2017	*15	*11	..	..	..	4	..
	2018	*17	*11	..	..	..	6	..
	2019	*18	*11	..	..	..	7	..
Fiji	2016	328	*172	130	..	21	5	..
	2017	*360	*194	138	..	*21	7	..
	2018	*363	*194	138	..	*21	10	..
	2019	*363	*194	138	..	*21	10	..
French Polynesia	2016	258	185	47	..	0	26	..
	2017	268	185	47	..	0	36	..
	2018	271	186	47	..	0	38	..
	2019	277	186	49	..	0	41	..
Guam	2016	498	472	..	..	0	26	..
	2017	446	420	..	..	0	26	..
	2018	446	420	..	..	0	26	..
	2019	445	420	..	..	0	25	..
Kiribati	2016	*11	*8	..	..	..	3	..
	2017	*11	*8	..	..	..	3	..
	2018	*11	*8	..	..	..	3	..
	2019	*11	*8	..	..	..	3	..
Marshall Islands	2016	*38	*36	..	..	..	2	..
	2017	*39	*37	..	..	..	2	..
	2018	*39	*37	..	..	..	2	..
	2019	*39	*37	..	..	..	2	..
Micronesia (Fed. States of)	2016	*34	*32	2	..	..	1	..
	2017	*34	*32	*2	..	..	1	..
	2018	*36	*32	*2	..	1	2	..
	2019	*36	*32	*2	..	1	2	..
Nauru	2016	*7	*6	..	..	..	1	..
	2017	*8	*7	..	..	..	1	..
	2018	*14	*13	..	..	..	1	..
	2019	*14	*13	..	..	..	1	..
New Caledonia	2016	1,001	875	78	..	38	10	..
	2017	*1,020	*875	78	..	54	13	..
	2018	*1,040	*875	78	..	54	*33	..
	2019	*1,066	*875	78	..	54	*59	..
New Zealand	2016	9,290	2,210	5,381	..	689	53	957
	2017	9,311	2,213	5,381	..	689	71	957
	2018	9,358	2,216	5,381	..	689	91	981
	2019	9,391	2,216	5,389	..	689	116	981
Niue	2016	*2	*2	..	..	..	0	..
	2017	*2	*2	..	..	..	0	..
	2018	*2	*2	..	..	..	0	..
	2019	*3	*2	..	..	..	1	..
Northern Mariana Islands	2016	95	95	..	..	..	..	..
	2017	*95	*95	..	..	..	..	..
	2018	*95	*95	..	..	..	..	..
	2019	*98	*98	..	..	..	..	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	46	42	..	..	4
..	..	..	..	46	42	..	..	4
..	..	..	..	47	42	..	..	5
..	..	..	..	47	42	..	..	5
11,121	4,863	..	6,258	56,021	42,994	8,271	..	4,756
11,602	4,758	..	6,844	55,030	41,436	8,271	..	5,323
12,299	5,057	..	7,242	56,603	41,254	8,523	..	6,826
14,374	5,422	..	8,952	59,154	40,334	8,523	..	10,297
..	..	..	..	*15	*11	..	..	4
..	..	..	..	*15	*11	..	..	4
..	..	..	..	*17	*11	..	..	6
..	..	..	..	*18	*11	..	..	7
*42	*42	..	..	286	*130	130	..	26
*54	*54	..	..	*306	*140	138	..	*28
54	54	..	..	*309	*140	138	..	*31
*54	*54	..	..	*309	*140	138	..	*31
..	..	..	..	258	185	47	..	27
..	..	..	..	268	185	47	..	36
..	..	..	..	271	186	47	..	38
..	..	..	..	277	186	49	..	41
..	..	..	..	498	472	..	..	26
..	..	..	..	446	420	..	..	26
..	..	..	..	446	420	..	..	26
..	..	..	..	445	420	..	..	25
*1	*1	..	..	*10	*7	..	..	3
*1	*1	..	..	*10	*7	..	..	3
*1	*1	..	..	*10	*7	..	..	3
*1	*1	..	..	*10	*7	..	..	3
..	..	..	..	*38	*36	..	..	2
..	..	..	..	*39	*37	..	..	2
..	..	..	..	*39	*37	..	..	2
..	..	..	..	*39	*37	..	..	2
..	..	..	..	*34	*32	2	..	1
..	..	..	..	*34	*32	*2	..	1
..	..	..	..	*36	*32	*2	..	3
..	..	..	..	*36	*32	*2	..	3
..	..	..	..	*7	*6	..	..	1
..	..	..	..	*8	*7	..	..	1
..	..	..	..	*14	*13	..	..	1
..	..	..	..	*14	*13	..	..	1
*61	*60	..	1	940	815	78	..	46
*63	*60	..	3	*957	*815	78	..	64
*68	*60	..	*8	*972	*815	78	..	79
*75	*60	..	*15	*991	*815	78	..	98
301	221	3	77	8,989	1,989	5,378	..	1,622
323	225	3	95	8,988	1,988	5,378	..	1,622
343	225	3	115	9,015	1,991	5,378	..	1,646
368	225	3	140	9,023	1,991	5,386	..	1,646
..	..	..	..	*2	*2	..	..	0
..	..	..	..	*2	*2	..	..	0
..	..	..	..	*2	*2	..	..	0
..	..	..	..	*3	*2	..	..	1
..	..	..	..	95	95	..	..	..
..	..	..	..	*95	*95	..	..	..
..	..	..	..	*95	*95	..	..	..
..	..	..	..	*98	*98	..	..	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Palau	2016	40	39	..	..	..	*1	..
	2017	*40	*39	..	..	..	*1	..
	2018	*40	*39	..	..	..	*2	..
	2019	*41	*39	..	..	..	*2	..
Papua New Guinea	2016	*971	*656	*258	..	..	1	56
	2017	*971	*656	*258	..	..	1	56
	2018	*1,102	*750	295	..	..	1	56
	2019	*1,152	*800	*295	..	..	1	56
Samoa	2016	*52	*23	*11	..	1	17	..
	2017	53	*23	13	..	1	17	..
	2018	*54	*23	13	..	1	*18	..
	2019	*56	*23	14	..	1	*18	..
Solomon Islands	2016	*38	*36	0	..	..	2	..
	2017	*39	*36	0	..	..	3	..
	2018	*39	*36	0	..	..	3	..
	2019	*40	*36	0	..	..	3	..
Tonga	2016	20	17	..	..	0	2	..
	2017	24	18	..	..	0	6	..
	2018	24	18	..	..	0	6	..
	2019	25	18	..	..	1	6	..
Tuvalu	2016	*5	*3	..	..	..	2	..
	2017	*5	*3	..	..	..	2	..
	2018	5	3	..	..	..	2	..
	2019	*5	*3	..	..	..	2	..
Vanuatu	2016	32	26	1	..	4	1	..
	2017	33	26	1	..	3	3	..
	2018	31	24	1	..	3	3	..
	2019	33	25	1	..	3	3	..
Wallis and Futuna Is.	2016	9	9	0	..	..	0	..
	2017	9	9	0	..	..	0	..
	2018	9	9	0	..	..	0	..
	2019	9	9	0	..	..	0	..

Table 30

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*2	*2	..	..	38	37	..	..	*1
*2	*2	..	..	*38	*37	..	..	*1
*2	*2	..	..	*38	*37	..	..	*2
*2	*2	..	..	*39	*37	..	..	*2
*608	*450	*102	56	*363	*206	*155	..	1
*602	*450	*96	56	*369	*206	*162	..	1
*601	*450	*95	56	*501	*300	200	..	1
*601	*450	*95	56	*551	*350	*200	..	1
0	..	..	0	*52	*23	*11	..	18
0	..	..	0	53	*23	13	..	18
0	..	..	0	*54	*23	13	..	*19
0	..	..	0	*56	*23	14	..	*19
*5	*5	..	..	*33	*31	0	..	2
*5	*5	..	..	*34	*31	0	..	3
*5	*5	..	..	*34	*31	0	..	3
*5	*5	..	..	*35	*31	0	..	3
..	..	..	..	20	17	..	..	2
..	..	..	..	24	18	..	..	6
..	..	..	..	24	18	..	..	6
..	..	..	..	25	18	..	..	7
..	..	..	..	*5	*3	..	..	2
..	..	..	..	*5	*3	..	..	2
..	..	..	..	5	3	..	..	2
..	..	..	..	*5	*3	..	..	2
..	..	..	..	32	26	1	..	5
..	..	..	..	33	26	1	..	6
..	..	..	..	31	24	1	..	6
..	..	..	..	33	25	1	..	6
..	..	..	..	9	9	0	..	0
..	..	..	..	9	9	0	..	0
..	..	..	..	9	9	0	..	0
..	..	..	..	9	9	0	..	0



## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

### Table Notes

Data on utilization are derived by dividing the data on electricity production shown in Table 32 by the net installed capacity shown in Table 30, and then by the total number of hours in a year to yield a percentage of theoretical maximal utilization.

For this table, **Other** under total producers refers to geothermal, tide, wave, marine and other non-specified sources. **Other** under autoproducers refers to nuclear (if any), wind, solar, tide, wave, marine and other non-specified sources. **Other** under main activity producers refers to wind, solar, tide, wave, marine and other non-specified sources.

For Austria data are given in gross maximum capacity.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 74: Utilization of installed electric generating capacity by source and region, 2019

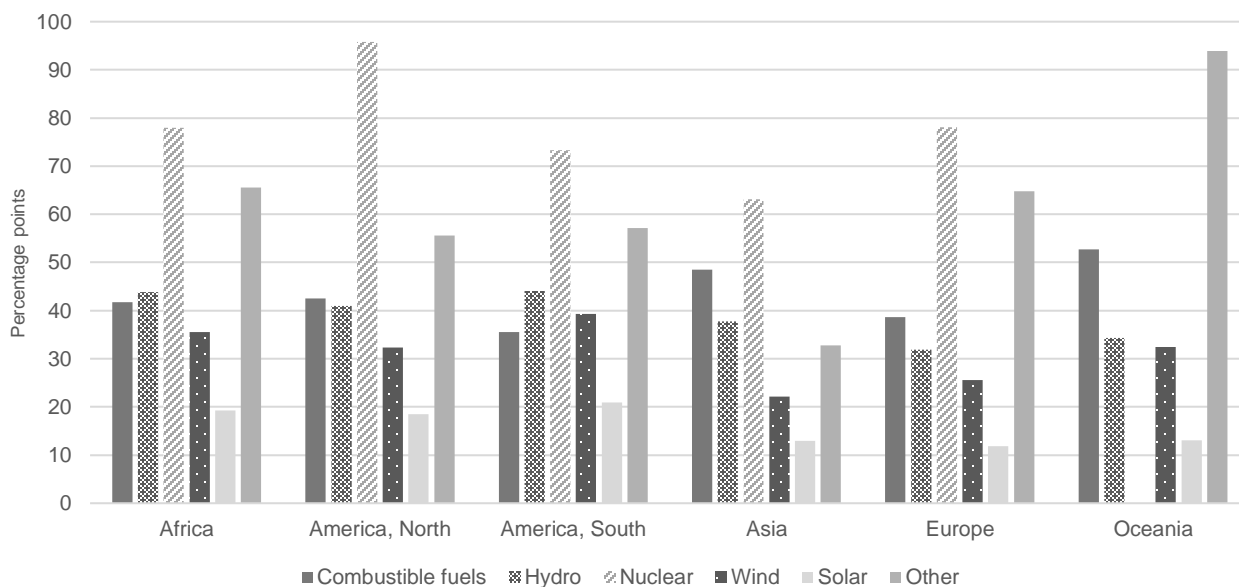




Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
<b>World</b>	<b>2016</b>	<b>43</b>	<b>45</b>	<b>38</b>	<b>75</b>	<b>23</b>	<b>12</b>	<b>63</b>
	<b>2017</b>	<b>43</b>	<b>46</b>	<b>38</b>	<b>75</b>	<b>25</b>	<b>12</b>	<b>64</b>
	<b>2018</b>	<b>42</b>	<b>46</b>	<b>38</b>	<b>76</b>	<b>26</b>	<b>13</b>	<b>45</b>
	<b>2019</b>	<b>42</b>	<b>45</b>	<b>38</b>	<b>79</b>	<b>26</b>	<b>14</b>	<b>44</b>
<b>Africa</b>	<b>2016</b>	<b>47</b>	<b>49</b>	<b>43</b>	<b>98</b>	<b>25</b>	<b>18</b>	<b>75</b>
	<b>2017</b>	<b>45</b>	<b>46</b>	<b>42</b>	<b>93</b>	<b>28</b>	<b>20</b>	<b>79</b>
	<b>2018</b>	<b>43</b>	<b>44</b>	<b>43</b>	<b>68</b>	<b>30</b>	<b>18</b>	<b>88</b>
	<b>2019</b>	<b>42</b>	<b>42</b>	<b>44</b>	<b>78</b>	<b>36</b>	<b>19</b>	<b>66</b>
Algeria	2016	43	43	4	..	22	16	..
	2017	44	46	3	..	22	15	..
	2018	41	42	6	..	12	17	..
	2019	43	44	8	..	13	17	..
Angola	2016	41	40	42	..	..	16	..
	2017	28	17	37	..	..	16	..
	2018	29	15	41	..	..	16	..
	2019	29	15	46	..	..	16	..
Benin	2016	8	10	1	..	..	19	..
	2017	10	12	0	..	..	20	..
	2018	6	7	0	..	..	21	..
	2019	12	14	0	..	..	29	..
Botswana	2016	49	49	..	..	..	18	..
	2017	46	46	..	..	..	18	..
	2018	45	45	..	..	..	44	..
	2019	38	38	..	..	..	40	..
Burkina Faso	2016	34	32	50	..	..	..	..
	2017	38	37	46	..	..	27	..
	2018	33	34	33	..	..	26	..
	2019	22	23	37	..	..	11	..
Burundi	2016	32	39	32	..	..	18	..
	2017	31	56	24	..	..	18	..
	2018	32	36	31	..	..	18	..
	2019	36	45	31	..	..	18	..
Cabo Verde	2016	30	30	..	..	34	9	..
	2017	28	28	..	..	32	10	..
	2018	27	27	..	..	34	13	..
	2019	26	26	..	..	31	13	..
Cameroon	2016	44	26	74	..	..	11	..
	2017	45	27	75	..	..	15	..
	2018	59	44	78	..	..	12	..
	2019	58	40	82	..	..	12	..
Central African Rep.	2016	37	1	65	..	..	16	..
	2017	37	1	66	..	..	16	..
	2018	38	1	67	..	..	16	..
	2019	38	1	68	..	..	16	..
Chad	2016	39	39	..	..	..	..	..
	2017	40	40	..	..	..	..	..
	2018	40	40	..	..	..	..	..
	2019	41	41	..	..	..	..	..
Comoros	2016	25	26	..	..	..	..	..
	2017	29	30	..	..	..	..	..
	2018	32	33	..	..	..	..	..
	2019	35	36	..	..	..	..	..
Congo	2016	56	53	62	..	..	25	..
	2017	56	51	64	..	..	12	..
	2018	58	58	58	..	..	20	..
	2019	69	82	45	..	..	20	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
39	43	47	16	43	45	38	75	21
41	48	46	17	43	46	38	75	21
40	47	41	15	43	46	38	76	21
39	46	40	15	42	45	38	79	22
28	30	9	17	50	52	44	98	38
24	24	12	22	48	49	43	93	36
24	24	16	21	46	47	44	68	35
26	26	13	25	44	44	44	78	34
13	13	..	..	51	53	4	..	16
14	14	..	..	53	55	3	..	15
10	10	..	..	54	56	6	..	17
10	10	..	..	58	60	8	..	17
31	31	..	..	42	42	42	..	16
20	20	..	..	28	17	37	..	16
19	19	..	..	30	15	41	..	16
16	16	..	..	29	15	46	..	16
24	24	..	..	6	7	1	..	19
25	25	..	..	8	10	0	..	20
29	29	..	..	3	4	0	..	21
41	41	..	..	9	10	0	..	24
..	..	..	..	51	51	..	..	18
..	..	..	..	47	47	..	..	18
..	..	..	..	45	45	..	..	44
..	..	..	..	38	38	..	..	40
..	..	..	..	34	32	50	..	..
..	..	..	..	38	37	46	..	27
..	..	..	..	33	34	33	..	26
..	..	..	..	22	23	37	..	11
40	40	..	..	32	39	32	..	18
38	38	..	..	31	60	24	..	18
23	23	..	..	33	37	31	..	18
27	27	..	..	36	46	31	..	18
14	14	..	..	30	30	..	..	29
17	17	..	..	28	28	..	..	27
18	18	..	..	27	27	..	..	29
18	18	..	..	26	26	..	..	27
44	44	..	..	44	6	74	..	11
47	47	..	..	44	5	75	..	15
57	57	..	..	60	13	78	..	12
53	53	..	..	61	10	82	..	12
..	..	..	..	37	1	65	..	16
..	..	..	..	37	1	66	..	16
..	..	..	..	38	1	67	..	16
..	..	..	..	38	1	68	..	16
..	..	..	..	39	39	..	..	..
..	..	..	..	40	40	..	..	..
..	..	..	..	40	40	..	..	..
..	..	..	..	41	41	..	..	..
..	..	..	..	26	26	..	..	..
..	..	..	..	30	30	..	..	..
..	..	..	..	33	33	..	..	..
..	..	..	..	36	36	..	..	..
60	60	..	..	51	..	62	..	25
57	57	..	..	54	..	64	..	12
65	65	..	..	49	..	58	..	20
92	92	..	..	38	..	45	..	20

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2016	61	76	29	..	..	..	..
	2017	52	70	27	..	..	..	..
	2018	52	62	38	..	..	..	..
	2019	55	61	45	..	..	26	..
Dem. Rep. of the Congo	2016	39	3	41	..	..	..	..
	2017	35	3	36	..	..	..	..
	2018	43	72	42	..	..	16	..
	2019	40	2	42	..	..	17	..
Djibouti	2016	8	8	..	..	..	..	..
	2017	5	5	..	..	..	..	..
	2018	5	5	..	..	..	..	..
	2019	5	5	..	..	..	..	..
Egypt	2016	54	54	55	..	31	14	..
	2017	47	47	52	..	34	47	..
	2018	41	41	51	..	26	32	..
	2019	38	38	53	..	37	17	..
Equatorial Guinea	2016	28	33	18	..	..	..	..
	2017	18	33	7	..	..	..	..
	2018	15	28	7	..	..	..	..
	2019	15	28	7	..	..	..	..
Eritrea	2016	30	30	..	..	23	80	..
	2017	23	24	..	..	23	13	..
	2018	24	25	..	..	23	11	..
	2019	24	26	..	..	23	13	..
Eswatini	2016	25	28	19	..	..	..	..
	2017	25	29	18	..	..	13	..
	2018	31	30	33	..	..	13	..
	2019	35	30	42	..	..	26	..
Ethiopia	2016	34	3	35	..	28	17	..
	2017	35	3	38	..	19	21	..
	2018	38	3	41	..	19	21	..
	2019	40	3	44	..	19	18	..
Gabon	2016	51	45	64	..	..	23	..
	2017	49	43	61	..	..	22	..
	2018	35	35	34	..	..	22	..
	2019	33	33	34	..	..	22	..
Gambia	2016	29	29	..	..	1	18	..
	2017	30	30	..	..	1	18	..
	2018	29	30	..	..	1	18	..
	2019	27	27	..	..	1	18	..
Ghana	2016	38	36	40	..	..	14	..
	2017	35	33	41	..	..	14	..
	2018	37	34	43	..	..	9	..
	2019	39	34	52	..	..	14	..
Guinea	2016	31	26	34	..	..	..	..
	2017	33	25	38	..	..	..	..
	2018	36	34	37	..	..	..	..
	2019	37	33	40	..	..	..	..
Guinea-Bissau	2016	34	34	..	..	..	..	..
	2017	33	34	..	..	..	11	..
	2018	34	35	..	..	..	11	..
	2019	34	35	..	..	..	23	..
Kenya	2016	51	23	57	..	25	..	79
	2017	52	41	38	..	27	..	83
	2018	42	16	55	..	13	3	93
	2019	42	16	44	..	53	21	72

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
86	86	..	..	61	76	29	..	..
86	86	..	..	52	70	27	..	..
30	30	..	..	53	63	38	..	..
32	32	..	..	55	62	45	..	26
0	11	0	..	49	1	52	..	..
4	3	4	..	42	2	42	..	..
25	90	8	..	48	2	48	..	16
4	3	4	..	48	2	49	..	17
..	..	..	..	8	8	..	..	..
..	..	..	..	5	5	..	..	..
..	..	..	..	5	5	..	..	..
..	..	..	..	5	5	..	..	..
31	31	..	..	55	55	55	..	29
31	31	..	..	48	48	52	..	36
34	34	..	..	41	41	51	..	27
64	64	..	..	37	37	53	..	28
..	..	..	..	28	33	18	..	..
..	..	..	..	18	33	7	..	..
..	..	..	..	15	28	7	..	..
..	..	..	..	15	28	7	..	..
13	13	..	..	31	31	..	..	51
16	16	..	..	24	24	..	..	14
18	18	..	..	24	25	..	..	12
18	18	..	..	25	26	..	..	13
30	31	..	..	18	..	20	..	..
31	32	..	13	17	..	19	..	..
31	33	..	13	30	..	34	..	..
32	33	..	13	39	..	44	..	27
9	9	..	..	34	0	35	..	27
9	9	..	..	35	0	38	..	18
9	9	..	..	38	1	41	..	18
9	9	..	..	40	1	44	..	18
36	37	..	23	53	47	64	..	..
37	38	30	22	51	44	62	..	..
30	30	32	22	35	37	34	..	..
29	29	32	22	34	34	34	..	..
12	12	..	..	35	36	..	..	12
12	12	..	..	37	38	..	..	12
12	12	..	..	36	37	..	..	12
12	12	..	..	32	33	..	..	12
10	10	..	..	39	39	40	..	14
10	10	..	..	37	34	41	..	14
10	10	..	..	38	36	43	..	9
10	10	..	..	40	35	52	..	14
36	36	..	..	29	5	34	..	..
35	35	..	..	32	9	38	..	..
48	48	..	..	32	13	37	..	..
48	48	..	..	34	13	40	..	..
40	40	..	..	32	32	..	..	..
39	39	..	..	32	33	..	..	11
41	41	..	..	32	33	..	..	11
40	40	..	..	33	33	..	..	23
..	..	..	..	50	21	57	..	77
..	..	..	..	51	38	38	..	81
4	4	..	..	47	21	55	..	62
7	7	..	..	47	20	44	..	65

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2016	72	9	72	..	..	..	..
	2017	76	14	77	..	..	..	..
	2018	79	14	80	..	..	..	..
	2019	60	15	60	..	..	..	..
Liberia	2016	47	47	50	..	..	..	..
	2017	45	45	51	..	..	17	..
	2018	26	36	15	..	..	15	..
	2019	27	37	16	..	..	19	..
Libya	2016	35	35	..	..	..	18	..
	2017	37	37	..	..	..	19	..
	2018	37	37	..	..	..	19	..
	2019	37	37	..	..	..	19	..
Madagascar	2016	40	31	64	..	30	20	..
	2017	34	27	54	..	30	20	..
	2018	36	27	67	..	30	13	..
	2019	45	39	61	..	30	18	..
Malawi	2016	44	10	65	..	..	24	..
	2017	42	10	62	..	..	23	..
	2018	38	10	55	..	..	23	..
	2019	44	10	65	..	..	23	..
Mali	2016	32	35	28	..	..	22	..
	2017	35	39	29	..	..	16	..
	2018	37	43	29	..	..	17	..
	2019	37	44	29	..	..	8	..
Mauritania	2016	26	25	..	..	37	19	..
	2017	27	28	..	..	34	13	..
	2018	25	26	..	..	35	19	..
	2019	25	26	..	..	35	19	..
Mauritius	2016	41	44	19	..	19	13	..
	2017	43	46	17	..	16	15	..
	2018	41	46	24	..	16	8	..
	2019	44	50	19	..	17	16	..
Morocco	2016	32	34	11	..	38	28	..
	2017	31	34	10	..	34	23	..
	2018	33	35	13	..	38	42	..
	2019	34	36	11	..	44	25	..
Mozambique	2016	86	86	86	..	..	14	..
	2017	73	99	69	..	..	1	..
	2018	71	84	70	..	..	0	..
	2019	77	96	75	..	..	5	..
Namibia	2016	32	5	44	..	30	18	..
	2017	34	5	52	..	11	5	..
	2018	26	2	38	..	40	16	..
	2019	20	5	31	..	11	3	..
Niger	2016	18	17	..	..	..	19	..
	2017	22	22	..	..	..	19	..
	2018	18	18	..	..	..	19	..
	2019	20	20	..	..	..	14	..
Nigeria	2016	33	31	44	..	11	17	..
	2017	30	28	42	..	11	17	..
	2018	30	29	37	..	11	17	..
	2019	31	29	36	..	11	17	..
Rwanda	2016	38	39	37	..	..	19	..
	2017	38	36	45	..	..	16	..
	2018	38	38	42	..	..	17	..
	2019	40	37	47	..	..	17	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	72	9	72	..	..
..	..	..	..	76	14	77	..	..
..	..	..	..	79	14	80	..	..
..	..	..	..	60	15	60	..	..
43	43	..	..	54	55	50	..	..
46	46	..	..	45	45	51	..	17
34	34	..	..	21	41	15	..	15
35	35	..	..	22	41	16	..	19
..	..	..	..	35	35	..	..	18
..	..	..	..	37	37	..	..	19
..	..	..	..	37	37	..	..	19
..	..	..	..	37	37	..	..	19
61	61	..	..	38	27	64	..	20
51	51	..	..	32	24	54	..	20
52	52	..	..	35	23	67	..	13
51	51	..	..	44	37	61	..	18
10	10	11	..	64	63	66	..	24
10	10	11	..	60	63	62	..	23
10	10	11	..	54	63	56	..	23
10	10	11	..	63	63	65	..	23
40	40	..	..	29	32	28	..	22
43	43	..	..	32	36	29	..	16
52	52	..	..	32	36	29	..	17
52	52	..	..	32	37	29	..	8
51	51	..	..	20	19	..	..	28
49	49	..	..	23	23	..	..	22
46	46	..	..	22	21	..	..	23
44	44	..	..	22	22	..	..	23
60	65	..	14	28	29	19	..	31
65	72	..	15	28	30	17	..	24
56	69	..	9	30	31	24	..	21
61	80	..	16	33	34	19	..	21
5	..	..	..	43	54	11	..	37
5	..	..	..	41	53	10	..	32
5	..	..	..	44	54	13	..	38
5	..	..	..	43	53	11	..	37
28	25	61	14	86	90	86	..	..
94	94	..	..	73	99	69	..	1
81	81	..	..	71	84	70	..	0
63	63	..	..	77	99	75	..	5
..	..	..	..	32	5	44	..	18
..	..	..	..	34	5	52	..	5
..	..	..	..	26	2	38	..	17
..	..	..	..	20	5	31	..	4
5	3	..	19	21	21	..	..	..
5	2	..	19	27	27	..	..	..
7	2	..	19	21	21	..	..	..
6	2	..	14	24	24	..	..	..
22	22	48	16	37	35	44	..	..
19	19	45	16	34	31	42	..	..
20	20	40	16	34	33	36	..	..
20	19	39	16	35	35	36	..	..
23	23	..	..	38	39	37	..	19
23	23	..	..	38	36	45	..	16
23	23	..	..	38	38	42	..	17
23	23	..	..	40	37	47	..	17

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2016	36	36	38	..	..	14	..
	2017	36	37	34	..	..	14	..
	2018	36	37	29	..	..	14	..
	2019	36	37	29	..	..	14	..
Senegal	2016	52	55	..	..	..	3	..
	2017	50	55	..	..	..	11	..
	2018	44	49	..	..	..	6	..
	2019	35	41	..	..	5	20	..
Seychelles	2016	41	43	..	..	13	13	..
	2017	38	39	..	..	11	11	..
	2018	38	40	..	..	14	11	..
	2019	39	41	..	..	15	16	..
Sierra Leone	2016	25	12	42	..	..	16	..
	2017	25	13	42	..	..	17	..
	2018	26	11	48	..	..	15	..
	2019	21	2	46	..	..	15	..
Somalia	2016	47	50	..	..	20	18	..
	2017	46	50	..	..	20	18	..
	2018	46	50	..	..	20	18	..
	2019	46	50	..	..	20	18	..
South Africa	2016	56	61	14	98	18	17	..
	2017	53	57	17	93	25	21	..
	2018	52	57	19	68	32	16	..
	2019	49	52	19	78	33	21	..
South Sudan	2016	71	74	..	..	..	16	..
	2017	47	51	..	..	..	4	..
	2018	51	55	..	..	..	5	..
	2019	52	56	..	..	..	6	..
St. Helena and Depend.	2016	12	13	..	..	11	15	..
	2017	12	13	..	..	8	11	..
	2018	11	12	..	..	11	11	..
	2019	11	14	..	..	8	7	..
Sudan	2016	47	38	58	..	..	17	..
	2017	47	36	61	..	..	18	..
	2018	48	38	58	..	..	19	..
	2019	47	35	61	..	..	14	..
Togo	2016	51	54	43	..	..	..	..
	2017	35	35	35	..	..	10	..
	2018	30	28	34	..	..	10	..
	2019	36	35	41	..	..	6	..
Tunisia	2016	43	44	8	..	23	19	..
	2017	46	48	3	..	21	31	..
	2018	49	51	3	..	22	14	..
	2019	46	47	12	..	24	18	..
Uganda	2016	46	17	54	..	..	4	..
	2017	48	24	55	..	..	13	..
	2018	47	23	55	..	..	9	..
	2019	40	17	45	..	..	17	..
United Rep. of Tanzania	2016	59	68	48	..	..	20	..
	2017	59	67	48	..	..	20	..
	2018	53	55	48	..	..	40	..
	2019	59	65	49	..	..	40	..
Zambia	2016	47	17	53	..	..	..	..
	2017	56	46	58	..	..	..	..
	2018	64	81	60	..	..	10	..
	2019	58	83	54	..	..	0	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	36	36	38	..	14
..	..	..	..	36	37	34	..	14
..	..	..	..	36	37	29	..	14
..	..	..	..	36	37	29	..	14
26	28	..	1	72	72	..	..	..
24	28	..	9	71	71	..	..	..
26	33	..	5	57	57	..	..	..
25	30	..	9	40	45	..	..	15
35	35	..	..	43	46	..	..	13
35	35	..	..	38	41	..	..	11
35	35	..	..	39	41	..	..	13
36	36	..	..	40	42	..	..	16
39	39	..	..	25	12	42	..	16
40	40	..	..	25	12	42	..	17
39	39	..	..	26	10	48	..	15
39	39	..	..	21	1	46	..	15
..	..	..	..	47	50	..	..	19
..	..	..	..	46	50	..	..	19
..	..	..	..	46	50	..	..	19
..	..	..	..	46	50	..	..	19
44	70	26	17	59	60	14	98	38
33	54	26	23	56	57	17	93	39
35	63	14	22	55	57	19	68	78
38	64	8	26	51	52	19	78	80
84	85	..	11	59	63	..	..	25
11	11	..	18	64	72	..	..	2
12	11	..	22	68	77	..	..	3
12	12	..	26	69	78	..	..	3
..	..	..	..	12	13	..	..	12
..	..	..	..	12	13	..	..	9
..	..	..	..	11	12	..	..	11
..	..	..	..	11	14	..	..	8
7	7	..	..	49	42	58	..	17
7	7	..	..	50	39	61	..	18
7	7	..	..	50	42	58	..	19
6	6	..	..	49	38	61	..	14
19	19	..	..	52	55	43	..	..
16	19	..	10	36	36	35	..	..
7	6	..	10	31	29	34	..	..
6	5	..	6	38	36	41	..	..
57	51	..	19	43	44	8	..	23
55	47	..	31	46	48	3	..	21
49	58	..	14	49	51	3	..	22
50	58	..	18	45	47	12	..	24
42	31	52	..	47	7	54	..	4
29	22	37	..	52	26	58	..	14
35	25	45	..	50	22	57	..	9
31	23	37	..	42	12	47	..	18
10	..	..	20	60	70	48	..	..
8	..	..	20	61	70	48	..	..
5	..	..	40	60	68	48	..	..
5	..	..	40	67	81	49	..	..
..	..	..	..	47	17	53	..	..
..	..	..	..	56	46	58	..	..
..	..	..	..	64	81	60	..	10
..	..	..	..	58	83	54	..	0



Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2016	40	38	44	..	..	..	..
	2017	43	32	60	..	..	..	..
	2018	46	39	55	..	..	..	..
	2019	38	39	37	..	..	..	..
<b>America, North</b>	<b>2016</b>	<b>46</b>	<b>44</b>	<b>41</b>	<b>94</b>	<b>32</b>	<b>17</b>	<b>73</b>
	<b>2017</b>	<b>45</b>	<b>42</b>	<b>44</b>	<b>94</b>	<b>33</b>	<b>18</b>	<b>62</b>
	<b>2018</b>	<b>46</b>	<b>44</b>	<b>43</b>	<b>95</b>	<b>33</b>	<b>18</b>	<b>57</b>
	<b>2019</b>	<b>45</b>	<b>43</b>	<b>41</b>	<b>96</b>	<b>32</b>	<b>18</b>	<b>56</b>
Anguilla	2016	34	36	..	..	..	11	..
	2017	36	38	..	..	..	11	..
	2018	41	41	..	..	..	23	..
	2019	44	47	..	..	..	11	..
Antigua and Barbuda	2016	34	35	..	..	..	17	..
	2017	34	35	..	..	..	17	..
	2018	45	49	..	..	..	16	..
	2019	35	37	..	..	..	16	..
Aruba	2016	38	35	..	..	55	..	..
	2017	39	37	..	..	55	..	..
	2018	39	36	..	..	67	..	..
	2019	39	36	..	..	63	..	..
Bahamas	2016	39	39	..	..	..	..	..
	2017	39	39	..	..	..	..	..
	2018	45	45	..	..	..	..	..
	2019	46	46	..	..	..	..	..
Barbados	2016	45	48	..	..	..	16	..
	2017	43	44	..	..	..	23	..
	2018	47	49	..	..	..	20	..
	2019	41	45	..	..	..	15	..
Belize	2016	30	16	58	..	..	..	..
	2017	28	14	60	..	..	..	..
	2018	29	17	56	..	..	..	..
	2019	22	26	16	..	..	..	..
Bermuda	2016	44	44	..	..	..	6	..
	2017	44	45	..	..	..	4	..
	2018	42	43	..	..	..	6	..
	2019	40	41	..	..	..	6	..
Bonaire, St Eustatius, Saba	2016	45	54	..	..	36	13	..
	2017	47	58	..	..	32	21	..
	2018	42	52	..	..	38	15	..
	2019	44	59	..	..	33	16	..
British Virgin Islands	2016	54	55	..	..	24	11	..
	2017	60	62	..	..	16	9	..
	2018	59	61	..	..	14	11	..
	2019	64	65	..	..	16	12	..
Canada	2016	52	43	55	83	29	17	33
	2017	51	40	56	82	29	14	25
	2018	50	40	54	82	30	14	26
	2019	49	39	53	82	28	14	20
Cayman Islands	2016	47	47	..	..	..	..	..
	2017	48	48	..	..	..	..	..
	2018	47	47	..	..	..	..	..
	2019	49	49	..	..	..	..	..
Costa Rica	2016	31	7	36	..	21	16	74
	2017	36	4	43	..	39	13	62
	2018	36	6	40	..	50	15	53
	2019	36	6	38	..	50	15	66

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
70	70	..	..	39	36	44	..	..
42	42	..	..	43	32	60	..	..
52	52	..	..	46	39	55	..	..
53	53	..	..	38	38	37	..	..
<b>45</b>	<b>54</b>	<b>58</b>	<b>17</b>	<b>46</b>	<b>43</b>	<b>41</b>	<b>94</b>	<b>31</b>
<b>45</b>	<b>56</b>	<b>65</b>	<b>17</b>	<b>45</b>	<b>41</b>	<b>43</b>	<b>94</b>	<b>32</b>
<b>46</b>	<b>62</b>	<b>63</b>	<b>16</b>	<b>46</b>	<b>43</b>	<b>42</b>	<b>95</b>	<b>31</b>
<b>45</b>	<b>63</b>	<b>61</b>	<b>16</b>	<b>45</b>	<b>41</b>	<b>40</b>	<b>96</b>	<b>31</b>
..	..	..	..	34	36	..	..	11
..	..	..	..	36	38	..	..	11
..	..	..	..	41	41	..	..	23
..	..	..	..	44	47	..	..	11
11	11	..	..	35	36	..	..	17
11	11	..	..	34	35	..	..	17
11	11	..	..	46	49	..	..	16
11	11	..	..	35	37	..	..	16
..	..	..	..	38	35	..	..	55
..	..	..	..	39	37	..	..	55
..	..	..	..	39	36	..	..	67
..	..	..	..	39	36	..	..	63
22	22	..	..	40	40	..	..	..
22	22	..	..	41	41	..	..	..
23	23	..	..	47	47	..	..	..
27	27	..	..	48	48	..	..	..
20	20	..	..	46	49	..	..	16
20	20	..	..	43	45	..	..	23
20	20	..	..	48	51	..	..	20
20	20	..	..	41	46	..	..	15
27	27	..	..	32	9	58	..	..
21	21	..	..	31	9	60	..	..
24	24	..	..	31	12	56	..	..
23	23	..	..	21	28	16	..	..
26	36	..	6	45	45	..	..	..
24	39	..	4	45	45	..	..	..
20	33	..	6	43	43	..	..	..
20	33	..	6	41	41	..	..	..
..	..	..	..	45	54	..	..	32
..	..	..	..	47	58	..	..	31
..	..	..	..	42	52	..	..	30
..	..	..	..	44	59	..	..	27
..	..	..	..	54	55	..	..	17
..	..	..	..	60	62	..	..	13
..	..	..	..	59	61	..	..	13
..	..	..	..	64	65	..	..	15
59	63	63	16	51	40	54	83	28
60	64	67	15	51	36	55	82	27
57	61	65	15	50	36	53	82	28
56	60	64	15	49	35	53	82	26
..	..	..	..	47	47	..	..	..
..	..	..	..	48	48	..	..	..
..	..	..	..	47	47	..	..	..
..	..	..	..	49	49	..	..	..
4	49	0	1	36	4	39	..	54
36	50	..	14	36	1	43	..	47
29	40	..	15	36	3	40	..	51
23	30	..	14	37	2	38	..	56

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Cuba	2016	36	37	11	..	15	15	..
	2017	36	37	14	..	11	11	..
	2018	36	36	26	..	14	14	..
	2019	36	37	22	..	18	18	..
Curaçao	2016	33	32	..	..	49	14	..
	2017	40	40	..	..	42	20	..
	2018	38	35	..	..	59	18	..
	2019	46	47	..	..	53	19	..
Dominica	2016	42	39	63	..	32	6	..
	2017	35	34	47	..	32	6	..
	2018	31	28	58	..	32	6	..
	2019	39	38	48	..	32	6	..
Dominican Republic	2016	41	44	28	..	27	13	..
	2017	42	44	41	..	33	15	..
	2018	43	46	33	..	31	13	..
	2019	37	41	17	..	17	14	..
El Salvador	2016	40	35	31	..	..	23	88
	2017	33	22	34	..	..	28	88
	2018	30	20	32	..	..	20	86
	2019	31	27	30	..	..	14	82
Greenland	2016	30	11	50	..	..	..	..
	2017	32	15	49	..	..	..	..
	2018	32	15	50	..	..	..	..
	2019	32	15	49	..	..	..	..
Grenada	2016	50	52	..	..	..	13	..
	2017	50	52	..	..	..	18	..
	2018	49	50	..	..	..	19	..
	2019	50	52	..	..	..	13	..
Guatemala	2016	39	42	35	..	32	26	98
	2017	42	36	50	..	33	25	86
	2018	44	49	40	..	34	26	73
	2019	40	45	33	..	23	25	73
Haiti	2016	37	42	13	..	..	36	..
	2017	35	38	24	..	..	58	..
	2018	34	33	37	..	..	62	..
	2019	26	25	29	..	..	15	..
Honduras	2016	43	52	39	..	38	25	..
	2017	40	43	49	..	29	23	30
	2018	40	39	50	..	47	22	97
	2019	43	52	38	..	40	25	97
Jamaica	2016	48	52	46	..	23	6	..
	2017	48	51	61	..	33	13	..
	2018	48	51	70	..	34	13	..
	2019	44	47	61	..	30	9	..
Mexico	2016	50	56	28	75	29	15	76
	2017	49	55	29	77	29	19	69
	2018	46	51	29	96	25	6	43
	2019	43	48	20	74	32	28	44
Montserrat	2016	28	28	..	..	..	..	..
	2017	28	28	..	..	..	..	..
	2018	30	30	..	..	..	..	..
	2019	28	29	..	..	..	14	..
Nicaragua	2016	38	34	34	..	45	17	52
	2017	35	31	38	..	39	11	55
	2018	36	30	33	..	49	20	59
	2019	32	29	16	..	45	17	58

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
22	22	..	..	37	38	11	..	15
21	21	..	..	38	38	14	..	11
16	16	..	..	38	38	26	..	14
21	21	..	..	37	38	22	..	18
13	13	..	..	51	57	..	..	38
10	10	..	..	54	62	..	..	38
15	15	..	..	50	49	..	..	51
15	15	..	..	52	55	..	..	46
34	34	..	..	47	43	63	..	13
34	34	..	..	36	33	47	..	13
34	34	..	..	30	23	58	..	17
34	34	..	..	42	41	48	..	17
16	16	50	15	50	56	28	..	24
17	17	50	14	51	54	41	..	30
18	18	50	15	51	57	33	..	24
29	30	..	16	39	45	17	..	16
27	26	42	23	43	38	30	..	88
29	27	43	39	34	21	33	..	72
25	26	42	17	32	18	32	..	72
24	29	44	15	33	26	30	..	48
..	..	..	..	33	13	50	..	..
..	..	..	..	35	19	49	..	..
..	..	..	..	35	19	50	..	..
..	..	..	..	35	18	49	..	..
52	52	..	..	50	52	..	..	13
51	51	..	..	50	52	..	..	18
92	92	..	..	49	50	..	..	19
95	95	..	..	50	52	..	..	13
15	15	52	..	45	57	35	..	41
13	13	56	..	49	49	50	..	38
18	18	63	..	50	67	40	..	37
23	23	61	..	43	54	33	..	34
4	4	..	..	50	63	13	..	36
3	3	..	..	48	56	24	..	58
2	2	..	..	47	50	37	..	62
2	2	..	..	36	38	29	..	15
40	40	..	..	43	57	39	..	29
44	44	..	..	40	43	49	..	26
51	51	..	..	38	34	50	..	33
60	60	..	..	41	50	38	..	33
55	68	..	23	44	46	46	..	..
55	65	..	32	44	45	61	..	..
55	65	..	34	44	44	70	..	..
47	54	..	27	42	43	61	..	..
37	40	44	26	54	62	28	75	59
43	47	46	28	51	57	29	77	48
57	75	46	26	44	48	29	96	28
58	79	40	29	40	44	20	74	39
..	..	..	..	28	28	..	..	..
..	..	..	..	28	28	..	..	..
..	..	..	..	30	30	..	..	..
..	..	..	..	28	29	..	..	14
38	38	13	..	37	33	34	..	48
46	46	0	..	33	27	38	..	45
47	48	0	..	34	26	33	..	52
46	46	..	..	30	25	16	..	49

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Panama	2016	37	34	42	..	26	9	..
	2017	37	29	47	..	21	12	13
	2018	32	17	50	..	25	14	25
	2019	33	35	32	..	31	17	29
Puerto Rico	2016	38	39	8	..	18	10	..
	2017	30	31	6	..	17	11	..
	2018	34	36	4	..	12	6	..
	2019	35	36	5	..	18	17	..
Sint Maarten (Dutch part)	2016	42	42	..	..	..	..	..
	2017	39	39	..	..	..	..	..
	2018	36	36	..	..	..	..	..
	2019	35	35	..	..	..	..	..
St. Kitts-Nevis	2016	40	41	..	..	39	18	..
	2017	41	42	..	..	39	18	..
	2018	37	38	..	..	39	18	..
	2019	38	38	..	..	39	18	..
St. Lucia	2016	51	51	..	..	..	..	..
	2017	52	52	..	..	..	..	..
	2018	50	52	..	..	..	19	..
	2019	52	53	..	..	..	19	..
St. Pierre-Miquelon	2016	22	22	..	..	..	..	..
	2017	22	22	..	..	..	..	..
	2018	22	22	..	..	..	..	..
	2019	23	23	..	..	..	..	..
St. Vincent-Grenadines	2016	33	34	32	..	..	14	..
	2017	36	36	41	..	..	12	..
	2018	38	38	48	..	..	11	..
	2019	38	39	50	..	..	10	..
Trinidad and Tobago	2016	43	43	..	..	..	22	..
	2017	42	42	..	..	25	23	..
	2018	49	49	..	..	25	21	..
	2019	50	50	..	..	25	18	..
Turks and Caicos Islands	2016	34	34	..	..	..	..	..
	2017	41	41	..	..	..	..	..
	2018	35	35	..	..	..	13	..
	2019	35	35	..	..	..	11	..
United States	2016	45	43	32	96	32	17	73
	2017	44	41	36	96	34	19	61
	2018	45	43	35	97	33	19	72
	2019	44	42	35	98	33	18	68
United States Virgin Is.	2016	27	28	..	..	31	15	..
	2017	21	21	..	..	31	12	..
	2018	21	22	..	..	31	12	..
	2019	23	23	..	..	31	14	..
<b>America, South</b>	<b>2016</b>	<b>44</b>	<b>40</b>	<b>47</b>	<b>73</b>	<b>36</b>	<b>25</b>	<b>..</b>
	<b>2017</b>	<b>42</b>	<b>37</b>	<b>46</b>	<b>67</b>	<b>37</b>	<b>18</b>	<b>29</b>
	<b>2018</b>	<b>41</b>	<b>36</b>	<b>46</b>	<b>67</b>	<b>36</b>	<b>21</b>	<b>60</b>
	<b>2019</b>	<b>40</b>	<b>35</b>	<b>44</b>	<b>73</b>	<b>39</b>	<b>21</b>	<b>57</b>
Argentina	2016	45	45	43	54	29	18	..
	2017	42	42	42	40	31	23	..
	2018	41	42	42	42	21	6	..
	2019	39	39	37	52	35	21	..
Bolivia (Plur. State of)	2016	43	45	40	..	15	13	..
	2017	42	43	41	..	26	6	..
	2018	41	41	43	..	25	20	..
	2019	31	27	49	..	30	18	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2	2	..	..	39	39	44	..	22
2	2	..	..	39	34	48	..	18
8	11	..	..	33	17	52	..	20
26	29	..	..	34	37	34	..	25
47	47	..	..	38	39	8	..	14
39	39	..	..	30	31	6	..	13
42	42	..	..	34	36	4	..	8
44	44	..	..	35	36	5	..	17
..	..	..	..	42	42	..	..	..
..	..	..	..	39	39	..	..	..
..	..	..	..	36	36	..	..	..
..	..	..	..	35	35	..	..	..
3	3	..	..	43	44	..	..	29
3	3	..	..	43	45	..	..	29
3	3	..	..	39	40	..	..	29
3	3	..	..	40	40	..	..	29
..	..	..	..	51	51	..	..	..
..	..	..	..	52	52	..	..	..
..	..	..	..	50	52	..	..	19
..	..	..	..	52	53	..	..	19
..	..	..	..	22	22	..	..	..
..	..	..	..	22	22	..	..	..
..	..	..	..	22	22	..	..	..
..	..	..	..	23	23	..	..	..
25	..	..	25	33	34	32	..	12
23	..	..	23	36	36	41	..	9
24	..	..	24	38	38	48	..	8
23	..	..	23	39	39	50	..	7
9	9	..	..	44	44	..	..	22
9	9	..	..	44	44	..	..	23
8	8	..	..	51	51	..	..	21
9	9	..	..	51	51	..	..	18
..	..	..	..	34	34	..	..	..
..	..	..	..	41	41	..	..	..
..	..	..	..	35	35	..	..	13
..	..	..	..	35	35	..	..	11
47	63	49	15	45	42	32	96	31
45	64	53	14	44	41	36	96	32
43	64	57	14	46	43	35	97	32
42	65	49	14	45	41	34	98	31
15	..	..	15	27	28	..	..	17
10	..	..	10	21	21	..	..	17
11	..	..	11	22	22	..	..	17
13	..	..	13	23	23	..	..	17
<b>44</b>	<b>43</b>	<b>49</b>	<b>10</b>	<b>44</b>	<b>39</b>	<b>47</b>	<b>73</b>	<b>35</b>
<b>42</b>	<b>42</b>	<b>44</b>	<b>11</b>	<b>42</b>	<b>36</b>	<b>46</b>	<b>67</b>	<b>34</b>
<b>42</b>	<b>42</b>	<b>45</b>	<b>12</b>	<b>41</b>	<b>34</b>	<b>46</b>	<b>67</b>	<b>33</b>
<b>42</b>	<b>43</b>	<b>46</b>	<b>14</b>	<b>40</b>	<b>33</b>	<b>44</b>	<b>73</b>	<b>35</b>
47	47	26	..	44	45	43	54	29
47	47	26	..	41	41	42	40	31
47	47	26	..	41	41	42	42	18
47	47	26	..	38	38	37	52	32
17	17	46	..	46	48	40	..	15
20	20	42	..	44	45	41	..	20
32	32	50	..	41	41	43	..	22
32	32	50	..	31	27	49	..	20

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Brazil	2016	44	41	45	91	38	11	..
	2017	43	43	42	90	39	9	..
	2018	42	41	43	90	38	17	..
	2019	42	41	42	93	42	17	..
Chile	2016	37	37	40	..	27	27	..
	2017	35	35	37	..	31	26	30
	2018	34	34	40	..	24	26	62
	2019	35	35	40	..	28	27	58
Colombia	2016	48	53	46	..	32	..	..
	2017	48	33	56	..	2	6	..
	2018	47	36	54	..	27	1	..
	2019	48	43	52	..	39	17	..
Ecuador	2016	36	32	40	..	45	17	..
	2017	37	23	49	..	40	17	..
	2018	36	24	45	..	43	16	..
	2019	39	21	53	..	46	16	..
Falkland Is. (Malvinas)	2016	22	20	..	..	35	16	..
	2017	21	19	..	..	30	16	..
	2018	21	18	..	..	31	16	..
	2019	21	19	..	..	31	16	..
Guyana	2016	34	34	..	..	50	16	..
	2017	36	37	..	..	50	16	..
	2018	37	38	..	..	50	16	..
	2019	39	39	..	..	50	16	..
Paraguay	2016	83	29	83	..	..	..	..
	2017	78	34	78	..	..	..	..
	2018	77	35	77	..	..	..	..
	2019	64	46	64	..	..	..	..
Peru	2016	41	34	55	..	51	28	..
	2017	41	28	63	..	51	13	..
	2018	41	27	65	..	46	28	..
	2019	43	29	67	..	51	29	..
Suriname	2016	46	45	47	..	..	17	..
	2017	46	41	56	..	..	17	..
	2018	49	44	60	..	..	16	..
	2019	49	46	58	..	..	16	..
Uruguay	2016	41	31	58	..	28	19	..
	2017	36	25	56	..	29	13	..
	2018	34	21	49	..	36	19	..
	2019	37	20	60	..	36	19	..
Venezuela (Bolivar. Rep.)	2016	41	35	47	..	7	16	..
	2017	36	28	46	..	7	16	..
	2018	34	27	44	..	6	17	..
	2019	30	23	38	..	9	19	..
<b>Asia</b>	<b>2016</b>	<b>42</b>	<b>47</b>	<b>36</b>	<b>48</b>	<b>18</b>	<b>11</b>	<b>57</b>
	<b>2017</b>	<b>43</b>	<b>49</b>	<b>36</b>	<b>52</b>	<b>19</b>	<b>11</b>	<b>61</b>
	<b>2018</b>	<b>43</b>	<b>49</b>	<b>36</b>	<b>56</b>	<b>22</b>	<b>12</b>	<b>32</b>
	<b>2019</b>	<b>42</b>	<b>48</b>	<b>38</b>	<b>63</b>	<b>22</b>	<b>13</b>	<b>33</b>
Afghanistan	2016	31	13	37	..	..	..	..
	2017	31	15	37	..	..	..	..
	2018	28	17	32	..	..	..	..
	2019	34	15	41	..	..	20	..
Armenia	2016	23	16	20	67	8	11	..
	2017	25	18	20	73	8	7	..
	2018	25	21	20	58	7	12	..
	2019	24	19	20	62	9	16	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
46	46	49	11	43	37	45	91	38
45	46	42	14	42	41	42	90	37
45	47	44	13	41	35	43	90	36
44	46	44	15	41	37	42	93	37
32	32	51	0	37	38	40	..	27
23	23	63	8	36	38	37	..	28
19	19	80	8	37	39	40	..	26
22	22	40	2	37	38	40	..	28
61	64	16	..	47	49	46	..	32
60	63	18	..	47	23	56	..	3
67	70	19	..	46	26	55	..	6
74	77	24	..	46	33	52	..	21
50	48	66	..	34	27	39	..	30
49	45	70	..	35	15	48	..	27
48	44	69	..	33	16	44	..	28
51	44	84	..	37	12	52	..	29
11	11	..	..	25	22	..	..	34
11	11	..	..	23	21	..	..	29
11	11	..	..	23	20	..	..	31
11	11	..	..	23	21	..	..	30
17	17	..	..	37	38	..	..	17
19	19	..	..	39	40	..	..	17
19	19	..	..	41	41	..	..	17
8	8	..	..	43	44	..	..	17
..	..	..	..	83	29	83	..	..
..	..	..	..	78	34	78	..	..
..	..	..	..	77	35	77	..	..
..	..	..	..	64	46	64	..	..
17	14	63	..	44	37	54	..	44
18	14	60	12	43	31	63	..	32
19	15	65	13	44	30	65	..	39
19	16	60	15	46	31	67	..	42
53	62	47	..	34	34	..	..	17
53	49	56	..	35	36	..	..	17
62	65	60	..	31	31	..	..	16
63	73	58	..	30	31	..	..	16
39	42	..	3	41	23	58	..	28
39	43	..	4	36	16	56	..	27
42	46	..	5	33	11	49	..	34
40	44	..	7	37	11	60	..	34
21	22	..	12	41	36	47	..	0
21	21	..	12	36	28	46	..	0
20	21	..	10	35	27	44	..	0
17	18	..	12	30	23	38	..	2
<b>39</b>	<b>43</b>	<b>44</b>	<b>18</b>	<b>42</b>	<b>48</b>	<b>36</b>	<b>48</b>	<b>17</b>
<b>45</b>	<b>51</b>	<b>39</b>	<b>18</b>	<b>43</b>	<b>49</b>	<b>36</b>	<b>52</b>	<b>17</b>
<b>41</b>	<b>48</b>	<b>21</b>	<b>16</b>	<b>43</b>	<b>49</b>	<b>36</b>	<b>56</b>	<b>18</b>
<b>40</b>	<b>46</b>	<b>20</b>	<b>16</b>	<b>42</b>	<b>49</b>	<b>38</b>	<b>63</b>	<b>18</b>
19	1	27	..	38	24	42	..	..
19	1	28	..	39	27	42	..	..
17	1	25	..	34	31	35	..	..
18	1	26	..	44	29	49	..	20
..	..	..	..	23	16	20	67	9
13	..	..	13	25	18	20	73	5
16	..	..	16	25	21	20	58	7
16	..	..	16	24	19	20	62	13



Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Azerbaijan	2016	36	39	20	..	17	16	..
	2017	35	38	18	..	16	15	..
	2018	37	40	18	..	14	13	..
	2019	39	43	16	..	18	14	..
Bahrain	2016	47	47	..	..	11	21	..
	2017	48	48	..	..	11	21	..
	2018	48	48	..	..	11	21	..
	2019	55	55	..	..	11	23	..
Bangladesh	2016	66	67	51	..	68	19	..
	2017	68	69	52	..	68	19	..
	2018	59	59	54	..	68	25	..
	2019	53	53	38	..	68	31	..
Bhutan	2016	56	0	56	..	14	63	..
	2017	54	0	55	..	21	63	..
	2018	49	0	49	..	21	8	..
	2019	43	0	43	..	21	8	..
Brunei Darussalam	2016	59	60	..	..	..	10	..
	2017	48	48	..	..	..	19	..
	2018	49	49	..	..	..	19	..
	2019	51	51	..	..	..	15	..
Cambodia	2016	39	47	33	..	..	17	..
	2017	42	53	33	..	..	6	..
	2018	44	48	42	..	..	18	..
	2019	41	52	35	..	..	10	..
China	2016	40	44	41	72	18	9	11
	2017	41	47	40	79	21	9	13
	2018	42	49	40	75	23	12	10
	2019	41	48	42	82	22	13	11
China, Hong Kong SAR	2016	34	34	..	..	..	..	..
	2017	34	34	..	..	..	..	..
	2018	34	34	..	..	..	..	..
	2019	34	34	..	..	..	..	..
China, Macao SAR	2016	23	23	..	..	..	..	..
	2017	38	38	..	..	..	..	..
	2018	17	17	..	..	..	..	..
	2019	22	22	..	..	..	..	..
Cyprus	2016	32	34	..	..	16	20	..
	2017	32	35	..	..	15	18	..
	2018	32	35	..	..	16	19	..
	2019	32	35	..	..	17	16	..
Georgia	2016	40	30	44	..	5	..	..
	2017	37	30	39	..	50	..	..
	2018	39	28	42	..	48	..	..
	2019	36	29	39	..	46	..	..
India	2016	44	51	31	64	11	11	49
	2017	42	50	32	65	12	11	54
	2018	41	48	34	64	19	16	..
	2019	41	47	39	78	20	17	..
Indonesia	2016	45	44	50	..	10	19	68
	2017	53	54	41	..	10	19	67
	2018	52	53	39	..	..	3	71
	2019	51	52	38	..	..	1	70
Iran (Islamic Rep. of)	2016	45	50	16	74	15	1	21
	2017	46	52	14	84	13	5	23
	2018	45	50	14	84	24	11	23
	2019	46	51	15	80	21	14	21

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
35	35	..	25	36	39	20	..	14
31	31	..	28	35	39	18	..	13
28	28	..	0	38	42	18	..	14
28	28	..	0	40	46	16	..	17
43	43	..	..	50	50	..	..	19
42	42	..	..	52	52	..	..	19
44	44	..	..	52	52	..	..	19
57	57	..	..	53	53	..	..	21
86	86	..	..	61	62	51	..	19
82	82	..	..	65	66	52	..	19
42	42	..	..	66	67	54	..	25
26	26	..	..	71	72	38	..	31
..	..	..	..	56	0	56	..	22
..	..	..	..	54	0	55	..	28
..	..	..	..	49	0	49	..	13
..	..	..	..	43	0	43	..	13
44	44	..	..	62	62	..	..	10
42	42	..	..	49	49	..	..	19
43	43	..	..	50	50	..	..	19
44	44	..	..	52	53	..	..	15
..	..	..	..	39	47	33	..	17
..	..	..	..	42	53	33	..	6
..	..	..	..	44	48	42	..	18
..	..	..	..	41	52	35	..	10
41	41	..	..	40	44	41	72	15
99	99	..	..	40	45	40	79	16
92	92	..	..	41	47	40	75	17
88	88	..	..	40	46	42	82	17
..	..	..	..	34	34	..	..	..
..	..	..	..	34	34	..	..	..
..	..	..	..	34	34	..	..	..
..	..	..	..	34	34	..	..	..
79	79	..	..	19	19	..	..	..
81	81	..	..	35	35	..	..	..
70	70	..	..	13	13	..	..	..
85	85	..	..	17	17	..	..	..
17	14	..	20	32	35	..	..	17
17	14	..	20	33	35	..	..	16
18	16	..	20	33	35	..	..	17
17	20	..	16	33	36	..	..	17
..	..	..	..	40	30	44	..	5
..	..	..	..	37	30	39	..	50
..	..	..	..	39	28	42	..	48
..	..	..	..	36	29	39	..	46
43	46	23	12	44	52	31	64	17
37	39	25	13	43	53	32	65	17
27	27	30	9	44	54	34	64	16
32	32	30	24	43	52	39	78	16
40	35	67	75	48	48	44	..	57
34	29	51	82	62	65	37	..	49
9	10	..	..	73	74	63	..	71
9	11	..	..	71	72	63	..	70
13	13	..	..	47	53	16	74	13
16	16	..	..	48	55	14	84	10
15	15	..	..	47	53	14	84	18
9	9	..	..	49	55	15	80	17

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Iraq	2016	28	30	15	..	..	18	..
	2017	37	38	14	..	..	18	..
	2018	34	36	12	..	..	20	..
	2019	40	42	12	..	..	3	..
Israel	2016	43	45	0	..	0	20	..
	2017	43	45	0	..	76	18	..
	2018	44	46	0	..	60	13	..
	2019	42	46	..	..	60	17	..
Japan	2016	36	51	20	5	22	12	88
	2017	36	51	21	10	21	13	89
	2018	35	48	20	19	24	13	88
	2019	34	47	20	22	22	12	89
Jordan	2016	50	54	40	..	22	16	..
	2017	50	54	36	..	26	26	..
	2018	46	53	22	..	29	20	..
	2019	45	54	18	..	27	22	..
Kazakhstan	2016	48	48	49	..	32	10	..
	2017	46	46	47	..	35	10	..
	2018	48	50	43	..	40	9	..
	2019	51	54	41	..	28	12	..
Korea, Dem.Ppl's.Rep.	2016	24	13	31	..	..	15	..
	2017	21	10	29	..	..	16	..
	2018	21	8	31	..	..	17	..
	2019	19	9	26	..	..	18	..
Korea, Republic of	2016	58	58	12	80	18	13	39
	2017	53	53	12	75	20	14	44
	2018	53	56	13	70	20	13	43
	2019	50	53	11	72	20	12	43
Kuwait	2016	42	42	..	..	..	0	..
	2017	44	44	..	..	..	11	..
	2018	45	45	..	..	..	11	..
	2019	44	44	..	..	..	13	..
Kyrgyzstan	2016	40	28	43	..	..	..	..
	2017	46	20	52	..	..	..	..
	2018	46	22	52	..	..	..	..
	2019	45	20	50	..	..	..	..
Lao People's Dem. Rep.	2016	44	42	45	..	..	7	..
	2017	55	75	47	..	..	5	..
	2018	58	82	50	..	..	31	..
	2019	44	73	35	..	..	21	..
Lebanon	2016	67	72	16	..	..	14	..
	2017	72	77	19	..	..	13	..
	2018	71	76	16	..	..	13	..
	2019	73	76	44	..	..	17	..
Malaysia	2016	54	60	37	..	..	13	..
	2017	56	59	50	..	..	11	..
	2018	57	62	49	..	..	7	..
	2019	59	64	49	..	..	12	..
Maldives	2016	28	28	..	..	23	16	..
	2017	30	30	..	..	23	16	..
	2018	23	24	..	..	23	16	..
	2019	18	18	..	..	34	17	..
Mongolia	2016	54	56	34	..	35	6	..
	2017	52	58	34	..	17	6	..
	2018	51	57	30	..	25	11	..
	2019	53	61	31	..	25	8	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
18	..	..	18	28	30	15	..	..
18	..	..	18	37	38	14	..	..
20	..	..	20	34	36	12	..	..
3	..	..	3	40	42	12	..	..
33	55	0	20	44	44	0	..	0
31	44	0	20	45	45	0	..	0
29	55	0	15	46	46	0	..	0
29	66	..	18	45	45	..	..	..
26	40	64	18	38	53	19	5	18
25	39	68	17	39	52	20	10	18
24	39	83	17	38	49	20	19	18
24	40	85	16	38	48	19	22	17
11	11	..	..	52	56	40	..	19
11	11	..	..	52	56	36	..	26
8	8	..	..	47	55	22	..	22
48	48	..	..	45	54	18	..	23
11	..	..	11	48	48	49	..	18
11	..	..	11	46	46	47	..	20
11	..	..	11	48	50	43	..	15
11	..	..	11	51	54	41	..	16
..	..	..	..	24	13	31	..	15
..	..	..	..	21	10	29	..	16
..	..	..	..	21	8	31	..	17
..	..	..	..	19	9	26	..	18
54	59	..	9	58	58	12	80	17
43	45	..	12	53	54	12	75	17
41	45	..	12	54	57	13	70	16
39	44	..	11	51	54	11	72	15
0	..	..	0	42	42	..	..	..
1	..	..	11	44	44	..	..	..
1	..	..	11	45	45	..	..	..
7	..	..	11	45	45	..	..	..
49	49	..	..	40	28	43	..	..
29	29	..	..	46	20	52	..	..
74	74	..	..	46	21	52	..	..
61	61	..	..	45	19	50	..	..
..	..	..	..	44	42	45	..	7
..	..	..	..	55	75	47	..	5
..	..	..	..	58	82	50	..	31
..	..	..	..	44	73	35	..	21
89	91	..	14	58	63	16	..	..
90	92	..	13	65	70	19	..	..
79	82	..	13	68	74	16	..	..
88	93	..	17	66	68	44	..	..
22	28	..	..	58	64	37	..	8
25	25	27	1	59	62	50	..	11
31	42	..	1	59	64	49	..	6
35	49	..	1	61	66	49	..	10
22	22	..	..	33	34	..	..	17
24	24	..	..	35	36	..	..	17
26	26	..	..	22	23	..	..	17
16	16	..	..	19	19	..	..	18
25	..	34	..	55	57	..	..	28
25	..	34	..	53	59	..	..	14
23	..	30	..	52	58	..	..	21
24	..	31	..	54	61	..	..	19

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Myanmar	2016	43	43	43	..	..	..	..
	2017	41	42	39	..	..	..	..
	2018	45	52	39	..	..	4	..
	2019	38	43	33	..	..	23	..
Nepal	2016	49	..	53	..	11	11	..
	2017	46	0	49	..	11	10	..
	2018	47	0	49	..	11	7	..
	2019	59	0	62	..	5	6	..
Oman	2016	48	48	..	..	..	22	..
	2017	50	50	..	..	..	22	..
	2018	51	51	..	..	..	22	..
	2019	51	52	..	..	..	22	..
Other Asia	2016	61	67	24	70	17	10	..
	2017	60	70	21	50	20	11	..
	2018	60	68	19	70	19	11	0
	2019	56	62	21	95	19	11	29
Pakistan	2016	49	48	55	70	27	6	33
	2017	45	43	52	72	20	19	35
	2018	44	44	44	79	23	19	31
	2019	41	42	38	73	30	19	26
Philippines	2016	48	53	26	..	26	16	66
	2017	47	51	30	..	29	15	61
	2018	47	52	29	..	31	16	61
	2019	47	52	24	..	28	15	63
Qatar	2016	56	56	..	..	..	..	..
	2017	51	51	..	..	..	..	..
	2018	52	52	..	..	..	..	..
	2019	54	54	..	..	..	..	..
Saudi Arabia	2016	53	53	..	..	..	22	..
	2017	50	50	..	..	20	22	..
	2018	51	51	..	..	20	29	..
	2019	51	51	..	..	20	23	..
Singapore	2016	44	44	..	..	..	17	..
	2017	44	44	..	..	..	18	..
	2018	45	45	..	..	..	24	..
	2019	50	50	..	..	..	17	..
Sri Lanka	2016	41	53	28	..	31	12	..
	2017	42	55	27	..	33	24	..
	2018	44	50	41	..	29	16	..
	2019	44	59	30	..	31	19	..
State of Palestine	2016	33	35	..	..	..	19	..
	2017	33	36	..	..	..	17	..
	2018	24	26	..	..	..	17	..
	2019	39	49	..	..	..	17	..
Syrian Arab Republic	2016	21	24	7	..	..	..	..
	2017	22	25	6	..	..	..	..
	2018	21	23	6	..	..	..	..
	2019	20	22	6	..	..	..	..
Tajikistan	2016	30	10	32	..	..	..	..
	2017	31	16	33	..	..	..	..
	2018	34	21	36	..	..	..	..
	2019	37	24	38	..	..	..	..
Thailand	2016	50	59	12	..	8	9	38
	2017	47	56	16	..	20	11	57
	2018	46	54	24	..	17	10	53
	2019	48	57	20	..	28	12	49

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
43	43	43	..	43	43	43	..	..
55	56	50	..	36	30	39	..	..
53	65	37	4	38	33	40	..	..
44	49	35	23	31	31	32	..	..
18	..	18	..	53	..	57	..	11
18	..	18	..	49	0	52	..	11
14	..	14	..	51	0	54	..	10
15	..	15	..	64	0	68	..	6
..	..	..	..	48	48	..	..	22
..	..	..	..	50	50	..	..	22
..	..	..	..	51	51	..	..	22
..	..	..	..	51	52	..	..	3
25	27	..	6	80	94	24	70	55
23	26	..	7	79	98	21	50	66
25	29	..	9	80	94	19	70	64
23	28	..	9	75	82	21	95	56
39	41	..	33	50	48	55	70	15
38	41	..	35	45	43	52	72	20
39	46	..	31	44	44	44	79	22
37	47	..	26	41	42	38	73	27
25	26	12	..	48	54	26	..	48
26	26	12	..	47	52	30	..	44
26	26	12	..	48	53	29	..	45
26	26	12	..	47	52	24	..	45
62	62	..	..	23	23	..	..	..
57	57	..	..	21	21	..	..	..
59	59	..	..	11	11	..	..	..
61	61	..	..	14	14	..	..	..
80	80	..	..	48	48	..	..	22
70	70	..	..	46	46	..	..	22
90	90	..	..	38	38	..	..	29
51	51	..	..	51	52	..	..	23
96	96	..	..	42	42	..	..	17
80	80	..	..	42	43	..	..	18
95	95	..	..	42	43	..	..	24
93	93	..	..	48	48	..	..	17
25	43	25	17	43	53	29	..	27
31	34	31	30	43	56	26	..	29
33	31	36	18	46	50	42	..	23
26	31	28	12	47	59	31	..	27
62	89	..	19	27	28	..	..	19
50	75	..	17	29	30	..	..	17
39	61	..	17	20	21	..	..	17
30	57	..	17	41	48	..	..	17
8	8	..	..	23	26	7	..	..
9	9	..	..	23	27	6	..	..
8	8	..	..	22	25	6	..	..
7	7	..	..	21	24	6	..	..
..	..	..	..	30	10	32	..	..
..	..	..	..	31	16	33	..	..
..	..	..	..	34	21	36	..	..
..	..	..	..	37	24	38	..	..
35	37	14	17	59	76	12	..	3
37	39	17	23	53	67	16	..	6
43	46	29	23	48	60	24	..	6
46	49	27	26	49	63	20	..	11

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Timor-Leste	2016	17	17	53	..	..	18	..
	2017	17	17	53	..	..	18	..
	2018	18	18	53	..	..	18	..
	2019	21	21	53	..	..	18	..
Turkey	2016	40	48	29	..	31	14	66
	2017	40	52	24	..	31	10	65
	2018	39	51	24	..	33	18	65
	2019	38	42	36	..	33	18	61
Turkmenistan	2016	55	55	..	..	..	..	..
	2017	49	49	36	..	..	..	..
	2018	49	49	36	..	..	..	..
	2019	49	49	36	..	..	..	..
United Arab Emirates	2016	51	52	..	..	..	29	..
	2017	51	51	..	..	..	28	..
	2018	50	51	..	..	..	25	..
	2019	48	49	..	..	..	25	..
Uzbekistan	2016	47	48	42	..	..	1	..
	2017	48	48	49	..	..	2	..
	2018	50	53	35	..	..	1	..
	2019	45	46	39	..	33	0	..
Viet Nam	2016	48	51	43	..	15	..	..
	2017	51	48	56	..	15	..	..
	2018	54	56	52	..	15	11	..
	2019	47	53	53	..	9	0	..
Yemen	2016	31	35	..	..	..	7	..
	2017	26	29	..	..	..	9	..
	2018	23	23	..	..	..	22	..
	2019	23	23	..	..	..	22	..
<b>Europe</b>	<b>2016</b>	<b>40</b>	<b>40</b>	<b>34</b>	<b>78</b>	<b>23</b>	<b>12</b>	<b>69</b>
	<b>2017</b>	<b>39</b>	<b>41</b>	<b>31</b>	<b>78</b>	<b>25</b>	<b>12</b>	<b>67</b>
	<b>2018</b>	<b>39</b>	<b>39</b>	<b>34</b>	<b>78</b>	<b>24</b>	<b>12</b>	<b>64</b>
	<b>2019</b>	<b>38</b>	<b>39</b>	<b>32</b>	<b>78</b>	<b>26</b>	<b>12</b>	<b>65</b>
Albania	2016	42	..	45	..	..	..	..
	2017	24	..	25	..	..	..	..
	2018	44	..	46	..	..	..	..
	2019	25	..	27	..	..	17	..
Andorra	2016	22	32	21	..	..	17	..
	2017	23	39	21	..	..	16	..
	2018	29	46	28	..	..	7	..
	2019	23	48	21	..	..	9	..
Austria	2016	31	30	35	..	22	11	0
	2017	33	37	34	..	26	11	1
	2018	31	35	32	..	22	11	3
	2019	33	38	34	..	26	11	2
Belarus	2016	38	39	23	..	14	7	..
	2017	39	39	47	..	13	13	..
	2018	44	45	38	..	12	13	..
	2019	45	46	41	..	18	13	..
Belgium	2016	45	42	12	84	26	11	31
	2017	45	44	11	81	27	10	31
	2018	38	46	11	55	26	11	27
	2019	44	48	10	84	29	10	31
Bosnia and Herzegovina	2016	46	63	30	..	..	30	..
	2017	41	62	21	..	..	15	..
	2018	49	67	33	..	23	13	..
	2019	45	59	31	..	33	16	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	17	17	53	..	18
..	..	..	..	17	17	53	..	18
..	..	..	..	18	18	53	..	18
..	..	..	..	21	21	53	..	18
45	50	18	27	40	47	29	..	34
37	46	20	15	40	52	24	..	30
35	42	22	20	40	52	24	..	32
35	41	27	19	38	42	36	..	32
..	..	..	..	55	55	..	..	..
..	..	..	..	49	49	36	..	..
..	..	..	..	49	49	36	..	..
..	..	..	..	49	49	36	..	..
..	..	..	..	51	52	..	..	29
..	..	..	..	51	51	..	..	28
..	..	..	..	50	51	..	..	25
..	..	..	..	48	49	..	..	25
..	..	..	..	47	48	42	..	1
..	..	..	..	48	48	49	..	2
..	..	..	..	50	53	35	..	1
..	..	..	..	45	46	39	..	20
10	11	3	4	53	61	43	..	15
9	9	3	4	57	58	57	..	14
9	9	3	4	61	68	53	..	14
9	9	3	4	51	62	54	..	1
13	25	..	7	36	36	..	..	..
14	24	..	9	29	29	..	..	..
23	24	..	22	22	22	..	..	..
24	27	..	22	23	23	..	..	..
<b>36</b>	<b>43</b>	<b>35</b>	<b>13</b>	<b>40</b>	<b>40</b>	<b>34</b>	<b>78</b>	<b>20</b>
<b>36</b>	<b>43</b>	<b>33</b>	<b>13</b>	<b>40</b>	<b>41</b>	<b>31</b>	<b>78</b>	<b>21</b>
<b>36</b>	<b>43</b>	<b>35</b>	<b>14</b>	<b>39</b>	<b>39</b>	<b>34</b>	<b>78</b>	<b>21</b>
<b>35</b>	<b>44</b>	<b>35</b>	<b>13</b>	<b>38</b>	<b>38</b>	<b>32</b>	<b>78</b>	<b>21</b>
..	..	..	..	43	..	45	..	..
..	..	..	..	24	..	25	..	..
..	..	..	..	44	..	46	..	..
..	..	..	..	25	..	27	..	17
..	..	..	..	22	32	21	..	17
..	..	..	..	23	39	21	..	16
..	..	..	..	29	46	28	..	7
..	..	..	..	23	48	21	..	9
40	49	11	..	30	24	36	..	19
53	66	13	..	31	29	35	..	22
53	66	13	..	29	27	33	..	19
41	47	14	..	32	34	35	..	21
46	46	40	11	38	38	21	..	11
52	53	34	13	38	38	48	..	13
47	49	46	13	44	44	38	..	13
50	53	40	14	45	46	41	..	16
25	53	..	11	51	40	12	84	26
26	59	..	10	50	41	11	81	27
25	58	..	11	42	44	11	55	26
25	60	..	11	52	45	10	84	29
20	20	..	..	48	68	30	..	30
22	22	..	..	43	66	21	..	15
71	71	..	..	49	67	33	..	21
66	66	..	..	44	59	31	..	30



Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Bulgaria	2016	47	66	16	92	23	15	..
	2017	47	71	12	90	25	15	..
	2018	46	61	18	92	22	15	..
	2019	44	60	11	94	21	16	..
Croatia	2016	31	26	37	..	24	14	..
	2017	28	28	29	..	24	15	..
	2018	31	24	40	..	26	13	2
	2019	31	33	31	..	26	11	105
Czechia	2016	43	46	16	64	20	12	..
	2017	45	45	15	75	22	12	..
	2018	45	45	14	80	22	13	..
	2019	45	44	16	80	24	13	..
Denmark	2016	25	24	24	..	28	10	..
	2017	25	22	29	..	31	9	..
	2018	23	22	24	..	26	11	..
	2019	22	18	28	..	30	10	..
Estonia	2016	54	58	67	..	22	11	..
	2017	59	64	41	..	26	11	..
	2018	50	54	23	..	23	11	..
	2019	32	34	36	..	25	7	..
Faeroe Islands	2016	30	27	32	..	42	..	..
	2017	31	27	33	..	48	..	..
	2018	33	30	32	..	51	..	..
	2019	34	34	31	..	42	..	..
Finland	2016	48	35	56	96	22	6	..
	2017	45	32	52	92	27	7	..
	2018	47	36	46	93	33	7	..
	2019	45	33	43	98	30	8	..
France	2016	48	29	29	73	21	13	56
	2017	48	38	24	72	21	13	67
	2018	49	31	31	75	22	13	60
	2019	48	36	27	72	24	13	58
Germany	2016	36	50	27	89	18	11	62
	2017	35	49	27	81	22	11	53
	2018	32	43	25	80	21	12	49
	2019	30	38	27	90	24	11	47
Gibraltar	2016	57	57	..	..	..	..	11
	2017	48	48	..	..	..	..	11
	2018	57	57	..	..	..	..	11
	2019	58	58	..	..	..	..	11
Greece	2016	32	42	19	..	25	17	..
	2017	32	44	14	..	24	17	..
	2018	31	40	19	..	25	16	..
	2019	27	35	14	..	23	18	..
Guernsey	2016	9	9	..	..	..	..	..
	2017	7	7	..	..	..	..	..
	2018	5	5	..	..	..	..	..
	2019	14	14	..	..	..	22	..
Hungary	2016	42	27	52	92	24	12	24
	2017	42	29	44	92	26	12	24
	2018	40	28	44	89	21	10	42
	2019	39	29	43	92	26	12	36
Iceland	2016	76	0	77	..	34	..	87
	2017	78	0	80	..	38	..	83
	2018	76	0	75	..	21	..	91
	2019	75	0	73	..	31	..	91

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
16	28	..	..	48	68	16	92	19
18	32	..	..	48	74	12	90	19
19	33	..	..	47	63	18	92	18
23	49	..	..	45	61	11	94	18
23	23	40	..	31	26	37	..	23
30	30	24	..	27	27	29	..	23
26	26	25	..	31	23	40	..	24
26	26	25	..	31	34	31	..	25
57	59	36	..	42	45	14	64	13
54	55	38	..	44	44	13	75	13
52	54	31	..	44	43	12	80	14
52	53	36	..	44	43	14	80	14
22	38	..	10	25	23	24	..	28
21	38	..	9	25	21	29	..	31
22	38	..	11	23	21	24	..	26
22	43	..	10	22	16	28	..	30
95	112	..	25	53	58	67	..	21
70	75	..	..	59	64	41	..	26
54	56	..	11	50	54	23	..	22
45	45	..	23	32	34	34	..	20
..	..	..	..	30	27	32	..	42
..	..	..	..	31	27	33	..	48
..	..	..	..	33	30	32	..	51
..	..	..	..	34	34	31	..	42
53	51	64	8	48	30	55	96	22
49	48	61	7	44	27	51	92	28
52	53	57	7	46	31	46	93	33
50	54	41	8	44	27	43	98	30
29	38	37	14	49	28	29	73	19
30	40	32	15	49	38	24	72	19
31	41	38	15	50	28	31	75	19
31	42	35	15	49	34	27	72	21
59	59	47	62	34	49	27	89	15
56	56	47	56	33	48	27	81	17
52	52	31	55	31	41	25	80	17
51	51	32	58	29	36	27	90	18
..	..	..	..	57	57	..	..	11
..	..	..	..	48	48	..	..	11
..	..	..	..	57	57	..	..	11
..	..	..	..	58	58	..	..	11
39	39	..	..	32	42	19	..	21
39	39	..	..	32	44	14	..	21
45	45	..	..	31	40	19	..	21
50	50	..	..	26	34	14	..	21
..	..	..	..	9	9	..	..	..
..	..	..	..	7	7	..	..	..
..	..	..	..	5	5	..	..	..
..	..	..	..	14	14	..	..	22
25	37	..	13	43	27	52	92	23
24	39	..	13	44	28	44	92	24
24	43	..	14	41	27	44	89	15
22	42	..	14	41	28	43	92	16
..	..	..	..	76	0	77	..	87
..	..	..	..	78	0	80	..	83
..	..	..	..	76	0	75	..	91
..	..	..	..	75	0	73	..	91

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Ireland	2016	35	40	21	..	25	11	..
	2017	33	38	19	..	26	8	..
	2018	32	36	20	..	27	8	..
	2019	32	35	24	..	27	8	..
Isle of Man	2016	27	27	28	..	..	..	..
	2017	28	28	36	..	..	..	..
	2018	30	30	23	..	..	..	..
	2019	35	35	30	..	..	..	..
Italy	2016	29	37	23	..	22	13	73
	2017	30	39	19	..	21	14	71
	2018	29	36	26	..	20	13	69
	2019	29	36	24	..	22	13	72
Jersey	2016	10	10	..	..	..	..	..
	2017	7	7	..	..	..	..	..
	2018	7	7	..	..	..	..	..
	2019	7	7	..	..	..	..	..
Kosovo	2016	68	72	33	..	..	..	..
	2017	48	51	25	..	0	1	..
	2018	48	50	39	..	10	3	..
	2019	45	54	11	..	11	11	..
Latvia	2016	25	33	18	..	21	..	..
	2017	29	26	32	..	22	7	..
	2018	26	37	18	..	18	7	..
	2019	25	38	15	..	23	11	..
Liechtenstein	2016	45	27	77	..	..	19	..
	2017	44	26	78	..	..	19	..
	2018	39	21	71	..	..	19	..
	2019	44	24	85	..	..	19	..
Lithuania	2016	13	9	14	..	25	11	..
	2017	14	8	15	..	30	10	..
	2018	12	7	12	..	25	12	..
	2019	13	8	12	..	32	10	..
Luxembourg	2016	15	39	13	..	10	9	..
	2017	15	41	12	..	22	10	..
	2018	15	43	11	..	24	10	..
	2019	12	41	8	..	24	9	..
Malta	2016	17	17	..	..	..	16	..
	2017	27	29	..	..	7	17	..
	2018	31	34	..	..	7	16	..
	2019	32	36	..	..	7	16	..
Montenegro	2016	41	68	32	..	..	..	..
	2017	30	68	18	..	15	..	..
	2018	42	73	37	..	14	8	..
	2019	39	76	28	..	28	5	..
Netherlands	2016	38	42	31	93	22	9	193
	2017	40	43	19	80	29	9	224
	2018	37	43	22	83	27	9	83
	2019	37	46	23	92	29	8	86
North Macedonia	2016	35	37	33	..	34	16	..
	2017	35	45	19	..	34	16	..
	2018	35	38	30	..	30	15	..
	2019	36	47	20	..	31	16	..
Norway	2016	50	34	51	..	27	..	..
	2017	50	34	51	..	27	..	..
	2018	47	34	49	..	26	0	..
	2019	42	32	44	..	22	2	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
70	73	..	20	33	38	21	..	25
66	72	..	15	32	36	19	..	26
63	69	..	14	31	35	20	..	27
59	65	..	15	31	33	24	..	28
37	37	..	..	26	26	28	..	..
36	36	..	..	28	28	36	..	..
49	49	..	..	29	29	23	..	..
49	49	..	..	35	35	30	..	..
44	43	55	42	28	36	22	..	18
45	45	47	31	29	38	19	..	18
47	47	51	34	28	35	26	..	17
47	47	53	25	28	35	24	..	18
18	18	..	..	6	6	..	..	..
18	18	..	..	1	1	..	..	..
18	18	..	..	0	0	..	..	..
17	17	..	..	0	0	..	..	..
..	..	..	..	68	72	33	..	..
..	..	..	..	48	51	25	..	0
..	..	..	..	48	50	39	..	9
8	..	..	8	45	54	11	..	11
55	58	23	11	25	32	18	..	21
66	69	40	26	29	25	32	..	22
63	70	13	12	26	37	18	..	18
63	71	15	18	25	37	15	..	22
..	..	..	..	45	27	77	..	19
..	..	..	..	44	26	78	..	19
..	..	..	..	39	21	71	..	19
..	..	..	..	44	24	85	..	19
36	28	..	..	11	7	14	..	24
34	26	..	..	13	5	15	..	28
26	19	..	..	11	5	12	..	23
33	27	..	..	12	4	12	..	29
16	26	46	9	14	54	13	..	10
17	34	22	10	15	46	12	..	22
17	35	23	10	14	48	11	..	24
15	32	25	9	12	46	8	..	24
16	20	..	16	17	17	..	..	..
17	24	..	17	29	29	..	..	..
17	22	..	16	34	34	..	..	..
16	16	..	16	36	36	..	..	..
..	..	..	..	41	68	32	..	..
..	..	..	..	30	68	18	..	15
..	..	..	..	42	73	37	..	13
..	..	..	..	39	76	28	..	27
35	47	..	12	39	41	31	93	25
35	51	..	11	41	42	19	80	33
30	46	..	11	40	42	22	83	27
27	48	..	10	43	45	23	92	27
..	..	..	..	35	37	33	..	28
..	..	..	..	35	45	19	..	28
..	..	..	..	35	38	30	..	25
..	..	..	..	36	47	20	..	26
56	54	..	..	50	13	51	..	27
56	53	..	..	50	14	51	..	27
51	53	..	0	47	13	49	..	26
46	49	..	1	42	14	44	..	22

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Poland	2016	50	58	13	..	25	8	57
	2017	45	51	14	..	30	7	36
	2018	45	51	11	..	25	6	55
	2019	43	49	13	..	30	5	74
Portugal	2016	33	43	28	..	28	19	79
	2017	32	55	12	..	27	20	84
	2018	32	45	22	..	28	17	89
	2019	28	39	16	..	30	17	84
Republic of Moldova	2016	22	22	28	..	17	11	..
	2017	21	21	34	..	9	11	..
	2018	23	24	31	..	8	4	..
	2019	22	22	46	..	14	2	..
Romania	2016	32	28	31	91	25	15	..
	2017	31	30	25	93	28	15	..
	2018	31	28	31	92	24	15	..
	2019	33	32	27	91	25	14	..
Russian Federation	2016	47	43	42	83	18	10	65
	2017	47	43	42	83	16	11	67
	2018	47	43	43	80	16	12	66
	2019	46	42	43	79	6	13	67
Serbia	2016	61	73	43	..	17	12	..
	2017	57	72	37	..	22	15	..
	2018	53	61	44	..	6	10	..
	2019	54	69	38	..	26	15	..
Slovakia	2016	40	30	21	87	23	11	46
	2017	41	32	21	89	17	11	57
	2018	40	32	18	87	17	14	43
	2019	42	34	21	90	17	11	16
Slovenia	2016	53	50	42	95	14	13	..
	2017	51	48	35	104	13	13	..
	2018	49	41	42	96	13	12	..
	2019	48	40	40	97	14	13	..
Spain	2016	30	27	23	90	24	22	21
	2017	30	33	12	93	24	23	18
	2018	30	29	21	89	25	21	18
	2019	28	29	15	94	25	15	31
Sweden	2016	43	20	43	74	27	11	..
	2017	47	24	45	83	30	11	..
	2018	45	21	43	90	26	11	..
	2019	45	22	45	88	26	11	..
Switzerland	2016	35	46	28	72	17	9	..
	2017	33	47	28	70	20	10	..
	2018	36	45	28	87	19	10	..
	2019	37	46	30	90	22	10	..
Ukraine	2016	33	23	17	67	25	13	..
	2017	34	21	19	71	24	11	..
	2018	35	23	22	70	28	10	..
	2019	34	23	14	68	29	17	..
United Kingdom	2016	39	43	20	88	26	10	0
	2017	37	39	21	87	29	10	3
	2018	35	36	19	80	30	11	5
	2019	35	39	18	69	30	11	7
Oceania	2016	45	52	35	..	33	11	95
	2017	45	54	35	..	30	13	96
	2018	44	53	35	..	32	13	93
	2019	42	53	34	..	32	13	94

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
57	62	34	8	49	58	13	..	25
49	54	80	7	45	50	14	..	30
46	53	74	7	45	51	11	..	25
42	60	71	6	43	48	13	..	30
46	50	38	17	32	41	28	..	28
46	51	19	17	31	56	12	..	27
42	48	34	16	31	45	21	..	28
41	49	33	14	26	36	16	..	30
4	4	..	..	28	28	28	..	14
5	5	..	6	27	27	34	..	11
7	7	..	6	28	29	31	..	10
7	6	..	12	27	27	46	..	13
26	33	41	6	32	26	31	91	26
26	33	34	7	32	29	25	93	28
28	36	33	5	32	26	31	92	24
32	38	37	10	33	31	27	91	23
35	35	34	..	48	45	42	83	17
33	33	30	..	48	44	42	83	17
34	34	29	..	48	44	43	80	17
34	34	29	..	48	44	43	79	13
40	40	..	..	61	74	43	..	15
50	50	..	..	57	72	37	..	20
53	53	..	..	53	61	44	..	7
35	35	..	..	55	70	38	..	25
32	47	36	13	41	25	21	87	17
33	45	38	13	43	28	21	89	14
36	43	40	19	41	28	17	87	11
29	38	42	12	44	33	20	90	11
22	66	22	13	57	49	44	95	13
21	66	19	13	55	47	37	104	13
21	62	22	12	52	40	43	96	12
21	68	20	13	52	39	41	97	13
59	61	25	27	28	22	23	90	24
62	66	15	33	28	28	12	93	24
64	67	28	32	28	23	21	89	24
67	71	28	27	26	23	15	94	22
54	55	10	..	43	14	43	74	27
55	56	8	..	47	17	45	83	30
48	49	7	..	45	15	43	90	25
56	57	3	..	45	15	45	88	25
26	49	43	9	36	36	28	72	17
26	53	41	10	35	29	27	70	20
25	52	44	10	38	26	27	87	19
24	53	45	10	40	27	29	90	22
19	19	53	34	34	23	17	67	19
20	20	7	10	34	21	19	71	16
14	14	5	2	36	24	22	70	16
12	12	..	1	35	24	14	68	21
23	33	43	13	45	45	18	88	25
24	33	48	15	41	40	18	87	26
24	32	46	16	39	38	16	80	27
25	34	49	16	39	41	16	69	28
<b>27</b>	<b>45</b>	<b>39</b>	<b>11</b>	<b>48</b>	<b>53</b>	<b>35</b>	<b>..</b>	<b>40</b>
<b>30</b>	<b>52</b>	<b>41</b>	<b>13</b>	<b>48</b>	<b>54</b>	<b>35</b>	<b>..</b>	<b>38</b>
<b>31</b>	<b>52</b>	<b>25</b>	<b>15</b>	<b>47</b>	<b>53</b>	<b>35</b>	<b>..</b>	<b>35</b>
<b>31</b>	<b>53</b>	<b>33</b>	<b>16</b>	<b>45</b>	<b>53</b>	<b>34</b>	<b>..</b>	<b>29</b>

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
American Samoa	2016	42	45	..	..	..	9	..
	2017	41	44	..	..	..	13	..
	2018	41	44	..	..	..	11	..
	2019	41	45	..	..	..	11	..
Australia	2016	44	53	21	..	32	11	0
	2017	44	55	22	..	30	13	6
	2018	43	54	21	..	32	13	..
	2019	41	54	21	..	32	13	..
Cook Islands	2016	26	30	..	..	..	13	..
	2017	27	31	..	..	..	16	..
	2018	27	31	..	..	..	20	..
	2019	24	29	..	..	..	16	..
Fiji	2016	33	29	44	..	2	15	..
	2017	32	30	41	..	1	15	..
	2018	33	27	47	..	1	15	..
	2019	34	29	46	..	2	15	..
French Polynesia	2016	31	29	45	..	4	14	..
	2017	29	29	43	..	4	11	..
	2018	29	29	40	..	4	11	..
	2019	29	30	37	..	6	11	..
Guam	2016	39	40	..	..	21	23	..
	2017	45	46	..	..	21	23	..
	2018	44	45	..	..	21	23	..
	2019	44	45	..	..	21	24	..
Kiribati	2016	33	38	..	..	..	19	..
	2017	33	38	..	..	..	19	..
	2018	33	38	..	..	..	20	..
	2019	33	38	..	..	..	19	..
Marshall Islands	2016	26	27	..	..	..	11	..
	2017	26	27	..	..	..	11	..
	2018	26	27	..	..	..	11	..
	2019	27	27	..	..	..	11	..
Micronesia (Fed. States of)	2016	22	24	1	..	..	16	..
	2017	22	24	1	..	..	16	..
	2018	22	23	1	..	16	16	..
	2019	22	23	1	..	16	18	..
Nauru	2016	54	60	..	..	..	6	..
	2017	51	55	..	..	..	19	..
	2018	30	31	..	..	..	16	..
	2019	31	32	..	..	..	11	..
New Caledonia	2016	36	37	34	..	14	13	..
	2017	36	36	53	..	10	25	..
	2018	38	40	46	..	10	16	..
	2019	36	38	42	..	12	22	..
New Zealand	2016	54	39	55	..	39	12	96
	2017	54	46	53	..	35	12	96
	2018	54	41	56	..	34	13	93
	2019	54	45	54	..	37	13	94
Niue	2016	16	18	..	..	..	2	..
	2017	16	18	..	..	..	2	..
	2018	18	18	..	..	..	16	..
	2019	15	19	..	..	..	6	..
Northern Mariana Islands	2016	47	47	..	..	..	..	..
	2017	46	46	..	..	..	..	..
	2018	47	47	..	..	..	..	..
	2019	46	46	..	..	..	..	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	42	45	..	..	9
..	..	..	..	41	44	..	..	13
..	..	..	..	41	44	..	..	11
..	..	..	..	41	45	..	..	11
25	43	..	10	47	54	21	..	30
28	52	..	12	48	55	22	..	28
30	52	..	14	46	54	21	..	27
29	52	..	16	44	54	21	..	22
..	..	..	..	26	30	..	..	13
..	..	..	..	27	31	..	..	16
..	..	..	..	27	31	..	..	20
..	..	..	..	24	29	..	..	16
3	3	..	..	37	37	44	..	5
5	5	..	..	37	40	41	..	5
9	9	..	..	37	35	47	..	6
10	10	..	..	38	37	46	..	6
..	..	..	..	31	29	45	..	14
..	..	..	..	29	29	43	..	11
..	..	..	..	29	29	40	..	11
..	..	..	..	29	30	37	..	11
..	..	..	..	39	40	..	..	23
..	..	..	..	45	46	..	..	23
..	..	..	..	44	45	..	..	23
..	..	..	..	44	45	..	..	24
21	21	..	..	34	41	..	..	19
21	21	..	..	34	41	..	..	19
21	21	..	..	34	41	..	..	20
21	21	..	..	34	41	..	..	19
..	..	..	..	26	27	..	..	11
..	..	..	..	26	27	..	..	11
..	..	..	..	26	27	..	..	11
..	..	..	..	27	27	..	..	11
..	..	..	..	22	24	1	..	16
..	..	..	..	22	24	1	..	16
..	..	..	..	22	23	1	..	16
..	..	..	..	22	23	1	..	17
..	..	..	..	54	60	..	..	6
..	..	..	..	51	55	..	..	19
..	..	..	..	30	31	..	..	16
..	..	..	..	31	32	..	..	11
..	..	..	..	38	40	34	..	14
..	..	..	..	38	39	53	..	13
..	..	..	..	41	43	46	..	13
..	..	..	..	38	40	42	..	20
53	63	15	27	54	36	55	..	72
52	64	15	24	54	44	53	..	71
47	61	15	21	54	39	56	..	69
48	67	15	19	55	43	54	..	71
..	..	..	..	16	18	..	..	2
..	..	..	..	16	18	..	..	2
..	..	..	..	18	18	..	..	16
..	..	..	..	15	19	..	..	6
..	..	..	..	47	47	..	..	..
..	..	..	..	46	46	..	..	..
..	..	..	..	47	47	..	..	..
..	..	..	..	46	46	..	..	..



Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Palau	2016	27	28	..	..	..	2	..
	2017	27	28	..	..	..	2	..
	2018	27	28	..	..	..	15	..
	2019	27	28	..	..	..	11	..
Papua New Guinea	2016	56	59	45	..	..	17	86
	2017	54	55	45	..	..	17	86
	2018	48	51	32	..	..	18	86
	2019	48	50	36	..	..	18	91
Samoa	2016	33	50	34	..	4	10	..
	2017	33	53	24	..	3	13	..
	2018	32	44	39	..	3	13	..
	2019	35	47	40	..	4	15	..
Solomon Islands	2016	30	31	30	..	..	11	..
	2017	30	31	30	..	..	15	..
	2018	30	32	30	..	..	13	..
	2019	31	32	34	..	..	15	..
Tonga	2016	35	36	..	..	10	22	..
	2017	32	40	..	..	17	10	..
	2018	31	40	..	..	11	8	..
	2019	32	41	..	..	2	12	..
Tuvalu	2016	18	22	..	..	..	11	..
	2017	18	23	..	..	..	11	..
	2018	21	27	..	..	..	12	..
	2019	20	25	..	..	..	11	..
Vanuatu	2016	27	27	48	..	17	17	..
	2017	27	28	63	..	17	19	..
	2018	30	31	67	..	15	22	..
	2019	29	28	68	..	21	23	..
Wallis and Futuna Is.	2016	26	26	17	..	..	10	..
	2017	25	26	19	..	..	10	..
	2018	26	27	19	..	..	10	..
	2019	28	28	20	..	..	10	..

Table 31

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
35	35	..	..	27	28	..	..	2
40	40	..	..	26	27	..	..	2
40	40	..	..	27	27	..	..	15
40	40	..	..	26	27	..	..	11
66	70	40	86	40	34	48	..	17
63	64	42	86	40	34	47	..	17
62	67	25	86	31	29	35	..	18
64	67	33	91	31	27	37	..	18
10	..	..	10	33	50	34	..	10
10	..	..	10	33	53	24	..	13
10	..	..	10	32	44	39	..	13
10	..	..	10	35	47	40	..	15
9	9	..	..	33	34	30	..	11
9	9	..	..	33	35	30	..	15
7	7	..	..	34	35	30	..	13
7	7	..	..	34	36	34	..	15
..	..	..	..	35	36	..	..	22
..	..	..	..	32	40	..	..	10
..	..	..	..	31	40	..	..	8
..	..	..	..	32	41	..	..	10
..	..	..	..	18	22	..	..	11
..	..	..	..	18	23	..	..	11
..	..	..	..	21	27	..	..	12
..	..	..	..	20	25	..	..	11
..	..	..	..	27	27	48	..	17
..	..	..	..	27	28	63	..	18
..	..	..	..	30	31	67	..	18
..	..	..	..	29	28	68	..	22
..	..	..	..	26	26	17	..	10
..	..	..	..	25	26	19	..	10
..	..	..	..	26	27	19	..	10
..	..	..	..	28	28	20	..	10

**Table 32**

**Production of electricity - by type**

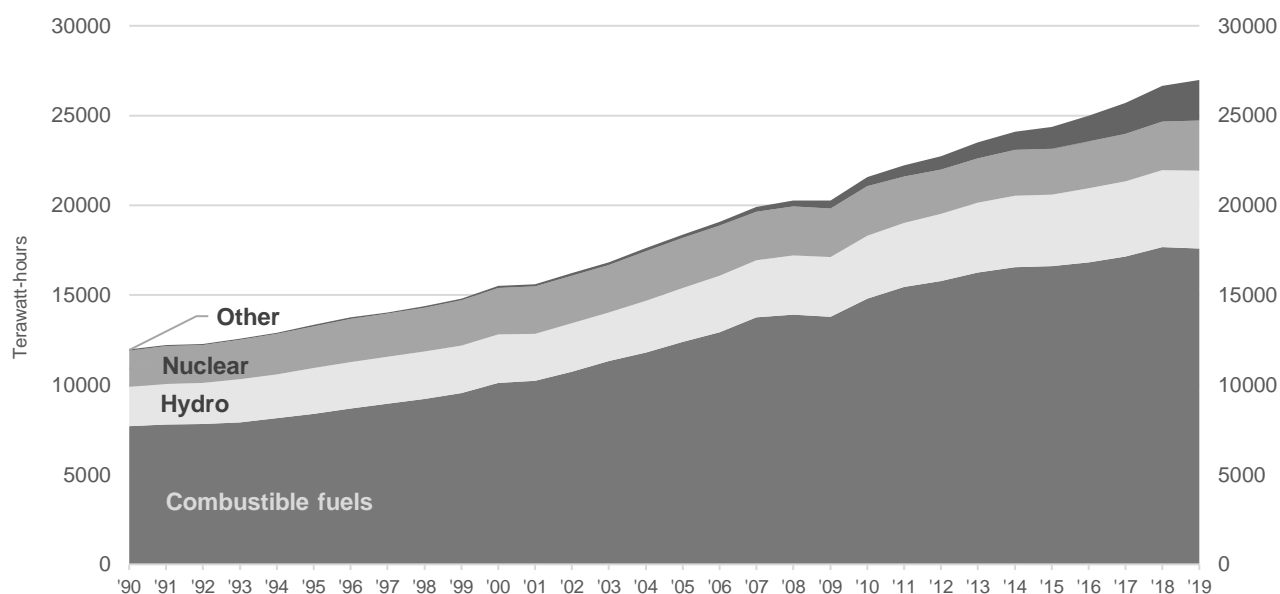
Gigawatt-hours

**Table Notes**

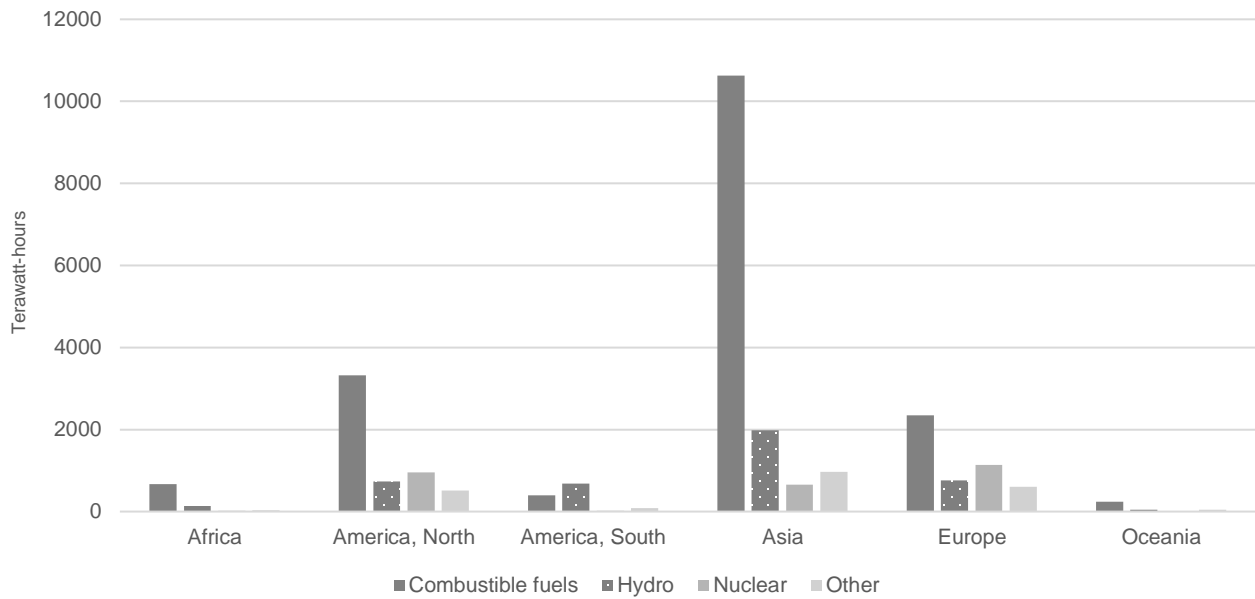
For this table, **Other** under total producers refers to geothermal, tide, wave, marine, electricity from chemical heat, and other non-specified sources. **Other** under autoproducers refers to nuclear (if any), wind, solar, tide, wave, marine, electricity from chemical heat, and other non-specified sources. **Other** under main activity producers refers to wind, solar, tide, wave, marine, electricity from chemical heat, and other non-specified sources.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

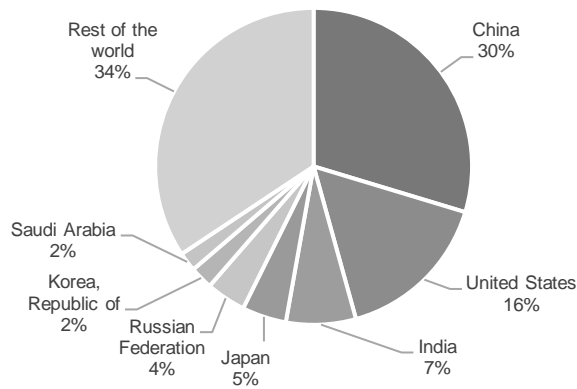
**Figure 75: World electricity generation by source, 1990-2019**



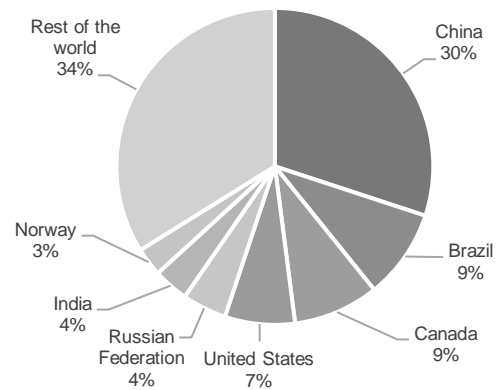
**Figure 76: World production of electricity by source and region, 2019**



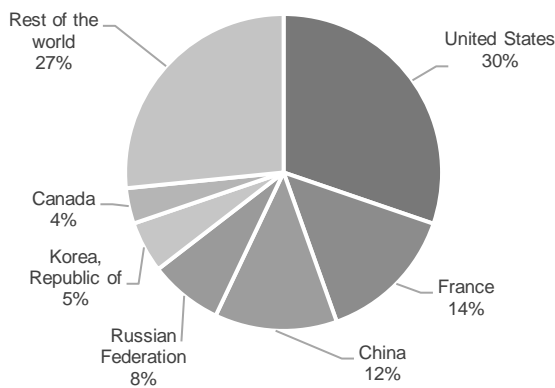
**Figure 77: Major countries producing electricity from combustible fuels, 2019**



**Figure 78: Major countries producing hydro electricity, 2019**



**Figure 79: Major countries producing nuclear electricity, 2019**



**Figure 80: Major countries producing electricity from other sources, 2019**

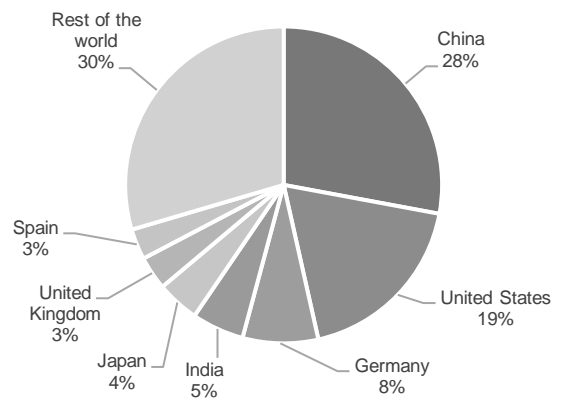


Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2016	24,986,890	16,812,692	4,141,058	2,606,892	949,697	319,767	156,784
	2017	25,699,698	17,159,011	4,187,792	2,634,659	1,117,899	429,364	170,974
	2018	26,654,467	17,667,832	4,301,140	2,708,656	1,272,554	566,889	137,396
	2019	26,982,699	17,594,661	4,341,634	2,788,265	1,426,854	690,164	141,121
Africa	2016	809,152	648,764	123,663	15,913	10,338	4,418	6,057
	2017	827,879	658,782	129,135	15,743	11,650	6,230	6,340
	2018	852,350	674,604	137,668	11,580	14,166	7,531	6,802
	2019	857,322	668,869	140,250	13,252	17,873	10,198	6,881
Algeria	2016	71,092	70,661	*72	..	*19	*339	..
	2017	76,018	75,383	*56	..	*19	*560	..
	2018	76,662	75,880	*117	..	*11	*655	..
	2019	81,533	80,691	*152	..	*12	*678	..
Angola	2016	10,379	4,546	5,815	..	..	18	..
	2017	10,737	3,066	7,653	..	..	18	..
	2018	12,869	3,058	9,793	..	..	18	..
	2019	15,474	4,582	10,874	..	..	18	..
Benin	2016	276	266	5	..	..	5	..
	2017	331	325	1	..	..	5	..
	2018	202	197	0	..	..	5	..
	2019	529	521	0	..	..	8	..
Botswana	2016	2,688	2,686	..	..	..	2	..
	2017	3,022	3,020	..	..	..	2	..
	2018	3,105	3,100	..	..	..	5	..
	2019	2,508	2,504	..	..	..	5	..
Burkina Faso	2016	973	834	140	..	..	..	..
	2017	1,095	958	128	..	..	9	..
	2018	1,021	875	91	..	..	54	..
	2019	752	588	105	..	..	59	..
Burundi	2016	181	31	143	..	..	6	..
	2017	192	84	100	..	..	8	..
	2018	246	105	133	..	..	8	..
	2019	271	131	132	..	..	8	..
Cabo Verde	2016	444	361	..	..	77	6	..
	2017	492	409	..	..	76	7	..
	2018	*497	*394	..	..	*93	*10	..
	2019	*513	*417	..	..	*85	*10	..
Cameroon	2016	7,531	2,767	4,752	..	..	12	..
	2017	8,082	2,976	5,090	..	..	16	..
	2018	8,581	3,539	5,023	..	..	19	..
	2019	8,476	3,227	5,229	..	..	19	..
Central African Rep.	2016	143	*1	142	..	..	0	..
	2017	145	*1	144	..	..	0	..
	2018	147	*1	146	..	..	0	..
	2019	149	*1	148	..	..	0	..
Chad	2016	294	294	..	..	..	..	..
	2017	299	299	..	..	..	..	..
	2018	303	303	..	..	..	..	..
	2019	308	308	..	..	..	..	..
Comoros	2016	*58	*58	..	..	..	..	..
	2017	*91	*91	..	..	..	..	..
	2018	*98	*98	..	..	..	..	..
	2019	*108	*108	..	..	..	..	..
Congo	2016	2,953	1,825	1,127	..	..	1	..
	2017	2,965	1,761	1,203	..	..	1	..
	2018	3,096	2,001	1,094	..	..	1	..
	2019	3,655	2,807	847	..	..	1	..

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,033,532	1,798,828	79,994	154,710	22,953,359	15,013,864	4,061,064	2,606,892	1,271,538
2,076,345	1,817,947	77,730	180,667	23,623,353	15,341,063	4,110,062	2,634,659	1,537,570
2,194,047	1,927,030	76,353	190,663	24,460,421	15,740,801	4,224,787	2,708,656	1,786,176
2,292,117	1,998,259	75,193	218,666	24,690,582	15,596,402	4,266,441	2,788,265	2,039,473
64,961	56,223	574	8,164	744,192	592,541	123,089	15,913	12,649
51,744	40,331	731	10,682	776,135	618,451	128,404	15,743	13,537
58,628	45,447	1,009	12,172	793,723	629,157	136,659	11,580	16,327
64,456	50,562	855	13,039	792,866	618,307	139,395	13,252	21,912
4,764	4,764	..	..	66,328	65,897	*72	..	*359
5,120	5,120	..	..	70,898	70,263	*56	..	*579
5,437	5,437	..	..	71,225	70,443	*117	..	*665
5,508	5,508	..	..	76,025	75,183	*152	..	*690
596	596	..	..	9,783	3,950	5,815	..	18
430	430	..	..	10,307	2,636	7,653	..	18
421	421	..	..	12,448	2,637	9,793	..	18
418	418	..	..	15,056	4,165	10,874	..	18
96	96	..	..	180	170	5	..	5
98	98	..	..	233	226	1	..	5
114	114	..	..	88	83	0	..	5
163	162	..	1	366	359	0	..	6
..	..	..	..	2,688	2,686	..	..	2
..	..	..	..	3,022	3,020	..	..	2
..	..	..	..	3,105	3,100	..	..	5
..	..	..	..	2,508	2,504	..	..	5
..	..	..	..	973	834	140	..	..
..	..	..	..	1,095	958	128	..	9
..	..	..	..	1,021	875	91	..	54
..	..	..	..	752	588	105	..	59
*7	*7	..	..	174	24	143	..	6
*10	*10	..	..	182	74	100	..	8
*6	*6	..	..	240	99	133	..	8
*7	*7	..	..	264	124	132	..	8
*1	*1	..	..	443	361	..	..	83
*1	*1	..	..	491	408	..	..	83
*1	*1	..	..	*496	*393	..	..	*103
*1	*1	..	..	*512	*417	..	..	*95
2,489	2,489	..	..	5,042	278	4,752	..	12
2,690	2,690	..	..	5,391	286	5,090	..	16
3,245	3,245	..	..	5,336	293	5,023	..	19
2,990	2,990	..	..	5,486	237	5,229	..	19
..	..	..	..	143	*1	142	..	0
..	..	..	..	145	*1	144	..	0
..	..	..	..	147	*1	146	..	0
..	..	..	..	149	*1	148	..	0
..	..	..	..	294	294	..	..	..
..	..	..	..	299	299	..	..	..
..	..	..	..	303	303	..	..	..
..	..	..	..	308	308	..	..	..
..	..	..	..	*58	*58	..	..	..
..	..	..	..	*91	*91	..	..	..
..	..	..	..	*98	*98	..	..	..
..	..	..	..	*108	*108	..	..	..
1,825	1,825	..	..	1,128	..	1,127	..	1
1,761	1,761	..	..	1,204	..	1,203	..	1
2,001	2,001	..	..	1,095	..	1,094	..	1
2,807	2,807	..	..	848	..	847	..	1

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2016	10,253	8,724	1,529	..	..	..	..
	2017	10,121	8,074	2,047	..	..	..	..
	2018	10,058	7,096	2,962	..	..	..	..
	2019	10,697	7,197	3,481	..	..	18	..
Dem. Rep. of the Congo	2016	9,135	36	9,099	..	..	..	..
	2017	9,510	28	9,482	..	..	..	..
	2018	12,067	976	11,064	..	..	27	..
	2019	11,107	33	11,045	..	..	29	..
Djibouti	2016	88	88	..	..	..	..	..
	2017	*59	*59	..	..	..	..	..
	2018	*58	*58	..	..	..	..	..
	2019	*60	*60	..	..	..	..	..
Egypt	2016	191,920	176,234	13,460	..	2,058	168	..
	2017	195,150	179,520	12,850	..	2,200	580	..
	2018	202,838	187,341	12,726	..	2,234	537	..
	2019	194,279	175,998	13,121	..	3,689	1,471	..
Equatorial Guinea	2016	*850	*650	*200	..	..	..	..
	2017	*850	*650	*200	..	..	..	..
	2018	*736	*536	*200	..	..	..	..
	2019	*750	*550	*200	..	..	..	..
Eritrea	2016	423	414	..	..	2	7	..
	2017	444	430	..	..	2	11	..
	2018	467	445	..	..	2	20	..
	2019	483	459	..	..	2	22	..
Eswatini	2016	408	284	123	..	..	..	..
	2017	414	297	117	..	..	0	..
	2018	519	311	208	..	..	0	..
	2019	584	313	269	..	..	2	..
Ethiopia	2016	12,588	32	11,753	..	782	21	..
	2017	13,268	32	12,681	..	533	22	..
	2018	14,242	34	13,655	..	533	20	..
	2019	15,149	35	14,564	..	533	18	..
Gabon	2016	2,338	1,383	953	..	..	2	..
	2017	2,278	1,347	929	..	..	2	..
	2018	2,280	1,297	981	..	..	2	..
	2019	2,284	1,301	981	..	..	2	..
Gambia	2016	302	299	..	..	0	*4	..
	2017	317	314	..	..	0	*4	..
	2018	*321	*318	..	..	0	*4	..
	2019	*325	*321	..	..	0	*4	..
Ghana	2016	13,203	7,615	5,561	..	..	27	..
	2017	14,248	8,604	5,616	..	..	28	..
	2018	16,425	10,375	6,017	..	..	33	..
	2019	18,368	11,065	7,252	..	..	52	..
Guinea	2016	1,596	512	1,084	..	..	..	..
	2017	1,753	541	1,212	..	..	..	..
	2018	1,914	732	1,182	..	..	..	..
	2019	2,019	*740	1,280	..	..	..	..
Guinea-Bissau	2016	*79	*79	..	..	..	..	..
	2017	*80	*79	..	..	..	1	..
	2018	*81	*80	..	..	..	1	..
	2019	*82	*80	..	..	..	2	..
Kenya	2016	10,058	1,557	3,960	..	56	..	4,484
	2017	10,360	2,766	2,777	..	61	..	4,756
	2018	11,182	1,679	3,986	..	376	14	5,128
	2019	11,621	1,526	3,205	..	1,563	92	5,235

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
173	173	..	..	10,080	8,551	1,529	..	..
173	173	..	..	9,948	7,901	2,047	..	..
61	61	..	..	9,997	7,035	2,962	..	..
65	65	..	..	10,631	7,132	3,481	..	18
24	24	0	..	9,111	12	9,099	..	..
180	22	158	..	9,330	6	9,324	..	..
1,311	971	340	..	10,756	5	10,724	..	27
211	27	184	..	10,896	5	10,861	..	29
..	..	..	..	88	88	..	..	..
..	..	..	..	*59	*59	..	..	..
..	..	..	..	*58	*58	..	..	..
..	..	..	..	*60	*60	..	..	..
*5,600	*5,600	..	..	186,320	170,634	13,460	..	2,226
*5,600	*5,600	..	..	189,550	173,920	12,850	..	2,780
6,078	6,078	..	..	196,760	181,263	12,726	..	2,771
11,554	11,554	..	..	182,725	164,444	13,121	..	5,160
..	..	..	..	*850	*650	*200	..	..
..	..	..	..	*850	*650	*200	..	..
..	..	..	..	*736	*536	*200	..	..
..	..	..	..	*750	*550	*200	..	..
11	11	..	..	412	403	..	..	9
14	14	..	..	430	416	..	..	13
15	15	..	..	452	430	..	..	22
16	16	..	..	468	443	..	..	24
284	284	..	..	123	..	123	..	..
297	297	..	0	117	..	117	..	..
311	311	..	0	208	..	208	..	..
313	313	..	0	271	..	269	..	2
28	28	..	..	12,560	4	11,753	..	803
28	28	..	..	13,240	4	12,681	..	555
29	29	..	..	14,213	5	13,655	..	553
30	30	..	..	15,119	5	14,564	..	550
226	224	..	2	2,112	1,159	953	..	..
240	232	5	2	2,039	1,115	924	..	..
230	223	6	2	2,050	1,075	975	..	..
226	218	6	2	2,058	1,083	975	..	..
*37	*37	..	..	265	262	..	..	*4
*37	*37	..	..	280	277	..	..	*4
*37	*37	..	..	*284	*280	..	..	*4
*38	*38	..	..	*287	*283	..	..	*4
*180	*180	..	..	13,023	7,435	5,561	..	27
*180	*180	..	..	14,068	8,424	5,616	..	28
*180	*180	..	..	16,245	10,195	6,017	..	33
*180	*180	..	..	18,188	10,885	7,252	..	52
478	478	..	..	1,117	34	1,084	..	..
465	465	..	..	1,288	76	1,212	..	..
619	619	..	..	1,295	114	1,182	..	..
*625	*625	..	..	1,394	*115	1,280	..	..
*18	*18	..	..	*60	*60	..	..	..
*19	*19	..	..	*61	*60	..	..	1
*19	*19	..	..	*62	*61	..	..	1
*19	*19	..	..	*63	*61	..	..	2
86	86	..	..	9,971	1,471	3,960	..	4,541
231	231	..	..	10,129	2,534	2,777	..	4,818
133	133	..	..	11,049	1,546	3,986	..	5,517
212	212	..	..	11,408	1,313	3,205	..	6,890



Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2016	508	0	508	..	..	..	..
	2017	502	*1	501	..	..	..	..
	2018	517	1	517	..	..	..	..
	2019	393	1	392	..	..	..	..
Liberia	2016	*440	*400	*40	..	..	..	..
	2017	*440	*397	*40	..	..	*3	..
	2018	*444	*318	*122	..	..	*4	..
	2019	*456	*322	*129	..	..	*5	..
Libya	2016	31,420	31,412	..	..	..	8	..
	2017	33,282	33,274	..	..	..	8	..
	2018	34,172	34,164	..	..	..	8	..
	2019	33,719	33,711	..	..	..	8	..
Madagascar	2016	1,886	980	887	..	0	19	..
	2017	1,994	1,182	789	..	0	23	..
	2018	2,095	1,104	968	..	0	*23	..
	2019	2,162	1,244	886	..	0	32	..
Malawi	2016	2,233	*183	2,025	..	..	25	..
	2017	2,142	*183	1,920	..	..	39	..
	2018	*1,997	*185	*1,765	..	..	47	..
	2019	*2,321	*189	*2,085	..	..	*47	..
Mali	2016	2,613	1,509	1,102	..	..	2	..
	2017	3,068	*1,935	1,130	..	..	3	..
	2018	*3,261	*2,128	*1,130	..	..	*3	..
	2019	*3,298	*2,152	*1,143	..	..	*4	..
Mauritania	2016	1,042	875	..	..	111	57	..
	2017	1,183	1,022	..	..	104	57	..
	2018	1,271	1,023	..	..	104	144	..
	2019	1,347	1,099	..	..	*104	*144	..
Mauritius	2016	3,042	2,894	100	..	18	30	..
	2017	3,120	2,976	90	..	15	39	..
	2018	3,132	2,943	125	..	15	49	..
	2019	3,237	2,994	99	..	15	128	..
Morocco	2016	32,141	25,776	1,662	..	3,000	401	1,302
	2017	33,192	26,875	1,565	..	3,035	415	1,302
	2018	35,822	27,731	1,998	..	3,841	950	1,302
	2019	41,650	32,414	1,654	..	4,699	1,581	1,302
Mozambique	2016	18,697	3,103	15,592	..	..	2	..
	2017	17,641	3,581	14,058	..	..	2	..
	2018	17,140	3,239	13,899	..	..	1	..
	2019	18,981	4,021	14,930	..	..	31	..
Namibia	2016	1,479	62	1,359	..	1	57	..
	2017	1,694	66	1,593	..	5	*30	..
	2018	1,307	21	1,144	..	18	124	..
	2019	1,052	52	954	..	5	41	..
Niger	2016	442	428	..	..	..	13	..
	2017	566	552	..	..	..	15	..
	2018	480	447	..	..	..	33	..
	2019	*555	*522	..	..	..	33	..
Nigeria	2016	36,512	28,331	8,151	..	3	27	..
	2017	32,221	24,443	7,747	..	3	28	..
	2018	32,446	25,657	6,758	..	3	28	..
	2019	31,422	24,633	6,745	..	3	41	..
Rwanda	2016	633	341	277	..	..	15	..
	2017	700	349	334	..	..	17	..
	2018	759	403	338	..	..	18	..
	2019	798	393	387	..	..	18	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	508	0	508	..	..
..	..	..	..	502	*1	501	..	..
..	..	..	..	517	1	517	..	..
..	..	..	..	393	1	392	..	..
*265	*265	..	..	*175	*135	*40	..	..
*280	*280	..	..	*160	*117	*40	..	*3
*210	*210	..	..	*234	*108	*122	..	*4
*213	*213	..	..	*243	*109	*129	..	*5
..	..	..	..	31,420	31,412	..	..	8
..	..	..	..	33,282	33,274	..	..	8
..	..	..	..	34,172	34,164	..	..	8
..	..	..	..	33,719	33,711	..	..	8
*215	*215	..	..	1,671	765	887	..	20
269	269	..	..	1,725	913	789	..	23
*275	*275	..	..	1,820	829	968	..	*23
*270	*270	..	..	1,892	974	886	..	32
*183	*178	*5	..	2,050	*5	2,020	..	25
*183	*178	*5	..	1,959	*5	1,915	..	39
*185	*180	*5	..	*1,812	*5	*1,760	..	47
*189	*184	*5	..	*2,132	*5	*2,080	..	*47
*708	*708	..	..	1,905	801	1,102	..	2
*986	*986	..	..	2,082	949	1,130	..	3
*1,178	*1,178	..	..	*2,083	*950	*1,130	..	*3
*1,191	*1,191	..	..	*2,107	*961	*1,143	..	*4
360	360	..	..	683	515	..	..	168
342	342	..	..	841	680	..	..	161
*346	*346	..	..	925	677	..	..	248
*350	*350	..	..	997	749	..	..	*248
1,827	1,782	..	45	1,215	1,112	100	..	4
1,843	1,792	..	51	1,277	1,184	90	..	3
1,781	1,719	..	62	1,350	1,223	125	..	3
1,775	1,634	..	141	1,462	1,361	99	..	3
1,302	..	..	1,302	30,839	25,776	1,662	..	3,401
1,302	..	..	1,302	31,890	26,875	1,565	..	3,450
1,302	..	..	1,302	34,519	27,731	1,998	..	4,791
1,302	..	..	1,302	40,348	32,414	1,654	..	6,281
77	58	17	2	18,620	3,045	15,575	..	..
246	246	..	..	17,394	3,335	14,058	..	2
213	213	..	..	16,927	3,027	13,899	..	1
222	222	..	..	18,759	3,799	14,930	..	31
..	..	..	..	1,479	62	1,359	..	58
..	..	..	..	1,694	66	1,593	..	*35
..	..	..	..	1,307	21	1,144	..	142
..	..	..	..	1,052	52	954	..	46
26	13	..	13	415	415	..	..	..
25	10	..	15	541	541	..	..	..
43	*11	..	33	437	437	..	..	..
44	*11	..	33	*511	*511	..	..	..
6,388	6,191	167	30	30,124	22,140	7,984	..	..
5,531	5,341	159	31	26,690	19,102	7,588	..	..
5,776	5,607	138	31	26,670	20,051	6,620	..	..
5,565	5,383	138	44	25,857	19,250	6,607	..	..
*2	*2	..	..	631	339	277	..	15
*2	*2	..	..	698	347	334	..	17
*2	*2	..	..	757	401	338	..	18
*2	*2	..	..	796	391	387	..	18

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2016	86	79	*7	..	..	0	..
	2017	*91	*83	*7	..	..	0	..
	2018	*91	*85	6	..	..	0	..
	2019	*91	*85	6	..	..	0	..
Senegal	2016	4,097	4,044	..	..	..	6	47
	2017	4,418	4,270	..	..	..	99	49
	2018	4,502	4,333	..	..	..	80	89
	2019	*4,453	*4,081	..	..	23	*291	58
Seychelles	2016	496	487	..	..	7	2	..
	2017	513	503	..	..	7	3	..
	2018	518	507	..	..	7	4	..
	2019	540	527	..	..	8	5	..
Sierra Leone	2016	*303	*84	*219	..	..	1	..
	2017	313	*88	219	..	..	6	..
	2018	315	*70	239	..	..	*6	..
	2019	260	*13	241	..	..	*6	..
Somalia	2016	362	350	..	..	5	7	..
	2017	367	350	..	..	6	11	..
	2018	367	350	..	..	6	11	..
	2019	367	350	..	..	*6	*11	..
South Africa	2016	255,112	228,523	3,947	15,913	3,722	3,007	..
	2017	257,769	227,635	5,323	15,743	5,132	3,936	..
	2018	256,064	228,082	5,694	11,580	6,467	4,241	..
	2019	252,639	222,163	5,791	13,252	6,624	4,809	..
South Sudan	2016	521	519	..	..	..	2	..
	2017	542	539	..	..	..	3	..
	2018	584	580	..	..	..	4	..
	2019	593	589	..	..	..	4	..
St. Helena and Depend.	2016	12	8	..	..	2	1	..
	2017	11	9	..	..	2	1	..
	2018	12	8	..	..	3	2	..
	2019	12	9	..	..	2	1	..
Sudan	2016	14,558	6,489	8,051	..	..	18	..
	2017	15,679	6,312	9,347	..	..	20	..
	2018	16,395	6,717	9,657	..	..	21	..
	2019	17,024	*6,792	10,210	..	..	22	..
Togo	2016	950	742	208	..	..	..	..
	2017	692	485	205	..	..	2	..
	2018	589	389	196	..	..	3	..
	2019	723	481	239	..	..	3	..
Tunisia	2016	19,808	19,002	45	..	474	63	224
	2017	20,589	19,758	17	..	449	133	232
	2018	21,012	20,085	17	..	453	174	283
	2019	22,083	20,986	66	..	500	245	286
Uganda	2016	3,508	244	3,261	..	..	4	..
	2017	3,854	381	3,447	..	..	25	..
	2018	4,040	405	3,602	..	..	32	..
	2019	4,364	300	3,986	..	..	78	..
United Rep. of Tanzania	2016	7,216	4,817	2,366	..	..	33	..
	2017	7,250	4,861	2,350	..	..	39	..
	2018	7,396	4,908	*2,400	..	..	88	..
	2019	7,865	5,298	2,477	..	..	89	..
Zambia	2016	11,695	670	11,025	..	..	..	..
	2017	14,185	1,987	12,198	..	..	..	..
	2018	16,191	3,524	12,666	..	..	1	..
	2019	15,041	3,598	11,441	..	..	1	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	86	79	*7	..	0
..	..	..	..	*91	*83	*7	..	0
..	..	..	..	*91	*85	6	..	0
..	..	..	..	*91	*85	6	..	0
858	805	..	53	3,239	3,239	..	..	..
969	821	..	148	3,449	3,449	..	..	..
1,134	965	..	169	3,368	3,368	..	..	..
1,026	869	..	*158	*3,427	*3,212	..	..	*214
*86	*86	..	..	410	401	..	..	9
*89	*89	..	..	424	414	..	..	10
*90	*90	..	..	428	417	..	..	11
*92	*92	..	..	448	435	..	..	13
*4	*4	..	..	*299	*80	*219	..	1
*4	*4	..	..	309	*84	219	..	6
*4	*4	..	..	311	*66	239	..	*6
*4	*4	..	..	256	*9	241	..	*6
..	..	..	..	362	350	..	..	12
..	..	..	..	367	350	..	..	17
..	..	..	..	367	350	..	..	17
..	..	..	..	367	350	..	..	*17
33,356	26,869	91	6,396	221,756	201,654	3,856	15,913	333
20,121	11,256	140	8,725	237,648	216,379	5,183	15,743	343
23,261	13,163	75	10,023	232,803	214,919	5,619	11,580	685
24,159	13,385	43	10,731	228,480	208,778	5,748	13,252	702
300	299	..	1	221	220	..	..	1
39	37	..	2	503	502	..	..	1
42	40	..	2	542	540	..	..	2
43	41	..	2	550	548	..	..	2
..	..	..	..	12	8	..	..	3
..	..	..	..	11	9	..	..	3
..	..	..	..	12	8	..	..	4
..	..	..	..	12	9	..	..	3
111	111	..	..	14,447	6,378	8,051	..	18
117	117	..	..	15,562	6,195	9,347	..	20
118	118	..	..	16,277	6,599	9,657	..	21
109	109	..	..	16,915	*6,683	10,210	..	22
13	13	..	..	937	729	208	..	..
15	13	..	2	677	472	205	..	..
7	4	..	3	582	385	196	..	..
7	4	..	3	716	478	239	..	..
1,174	887	..	287	18,634	18,115	45	..	474
1,187	822	..	365	19,402	18,936	17	..	449
1,467	1,010	..	457	19,545	19,075	17	..	453
1,534	1,003	..	531	20,549	19,983	66	..	500
471	178	294	..	3,037	66	2,967	..	4
414	150	264	..	3,440	231	3,183	..	25
651	207	444	..	3,389	199	3,158	..	32
677	197	480	..	3,687	103	3,506	..	78
33	..	..	33	7,183	4,817	2,366	..	..
39	..	..	39	7,211	4,861	2,350	..	..
88	..	..	88	7,308	4,908	*2,400	..	..
89	..	..	89	7,776	5,298	2,477	..	..
..	..	..	..	11,695	670	11,025	..	..
..	..	..	..	14,185	1,987	12,198	..	..
..	..	..	..	16,191	3,524	12,666	..	1
..	..	..	..	15,041	3,598	11,441	..	1

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2016	7,090	4,175	2,915	..	..	..	..
	2017	7,544	3,575	3,969	..	..	..	..
	2018	9,418	4,369	5,049	..	..	..	..
	2019	7,792	4,285	3,507	..	..	..	..
<b>America, North</b>	<b>2016</b>	<b>5,445,040</b>	<b>3,393,769</b>	<b>733,409</b>	<b>951,914</b>	<b>275,142</b>	<b>56,387</b>	<b>34,420</b>
	<b>2017</b>	<b>5,406,703</b>	<b>3,258,242</b>	<b>781,936</b>	<b>951,043</b>	<b>303,615</b>	<b>77,747</b>	<b>34,119</b>
	<b>2018</b>	<b>5,606,105</b>	<b>3,419,153</b>	<b>765,136</b>	<b>955,735</b>	<b>327,736</b>	<b>92,764</b>	<b>45,582</b>
	<b>2019</b>	<b>5,524,519</b>	<b>3,319,449</b>	<b>737,593</b>	<b>955,717</b>	<b>353,490</b>	<b>111,688</b>	<b>46,582</b>
Anguilla	2016	105	103	..	..	..	2	..
	2017	82	80	..	..	..	2	..
	2018	89	87	..	..	..	2	..
	2019	100	98	..	..	..	2	..
Antigua and Barbuda	2016	*353	*344	..	..	..	9	..
	2017	*353	*344	..	..	..	9	..
	2018	362	349	..	..	..	13	..
	2019	*362	*349	..	..	..	*13	..
Aruba	2016	*947	*802	..	..	*145	..	..
	2017	*978	*835	..	..	*144	..	..
	2018	*983	*808	..	..	*175	..	..
	2019	*987	*822	..	..	*165	..	..
Bahamas	2016	1,966	1,966	..	..	..	..	..
	2017	*1,987	*1,987	..	..	..	..	..
	2018	*2,280	*2,280	..	..	..	..	..
	2019	*2,337	*2,337	..	..	..	..	..
Barbados	2016	1,064	1,037	..	..	..	27	..
	2017	1,047	1,009	..	..	..	38	..
	2018	1,055	1,011	..	..	..	44	..
	2019	1,070	1,018	..	..	..	52	..
Belize	2016	389	128	261	..	..	..	..
	2017	406	135	271	..	..	..	..
	2018	415	166	250	..	..	..	..
	2019	304	230	75	..	..	..	..
Bermuda	2016	666	665	..	..	..	*1	..
	2017	676	675	..	..	..	*1	..
	2018	644	642	..	..	..	*2	..
	2019	613	611	..	..	..	*2	..
Bonaire, St Eustatius, Saba	2016	132	95	..	..	35	2	..
	2017	137	101	..	..	32	4	..
	2018	*137	*91	..	..	*37	8	..
	2019	*145	*104	..	..	*33	9	..
British Virgin Islands	2016	*212	*211	..	..	*1	*1	..
	2017	*167	*166	..	..	*1	0	..
	2018	*171	*170	..	..	*1	0	..
	2019	*183	*182	..	..	*1	0	..
Canada	2016	663,808	141,715	385,505	101,429	30,930	4,030	199
	2017	662,972	131,719	394,659	101,299	31,511	3,573	211
	2018	653,780	129,889	385,951	100,731	33,183	3,796	230
	2019	645,429	127,583	379,742	101,197	32,657	4,079	171
Cayman Islands	2016	666	666	..	..	..	..	..
	2017	671	671	..	..	..	..	..
	2018	658	658	..	..	..	..	..
	2019	696	696	..	..	..	..	..
Costa Rica	2016	10,932	389	8,026	..	1,147	30	1,340
	2017	11,359	237	8,677	..	1,288	40	1,118
	2018	11,528	358	8,343	..	1,799	60	969
	2019	11,508	295	7,827	..	1,796	77	1,513

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
278	278	..	..	6,812	3,897	2,915	..	..
167	167	..	..	7,377	3,408	3,969	..	..
206	206	..	..	9,212	4,163	5,049	..	..
209	209	..	..	7,583	4,076	3,507	..	..
<b>305,578</b>	<b>245,590</b>	<b>30,795</b>	<b>29,193</b>	<b>5,139,462</b>	<b>3,148,179</b>	<b>702,614</b>	<b>951,914</b>	<b>336,755</b>
<b>321,746</b>	<b>254,581</b>	<b>32,850</b>	<b>34,315</b>	<b>5,084,958</b>	<b>3,003,662</b>	<b>749,086</b>	<b>951,043</b>	<b>381,166</b>
<b>329,942</b>	<b>258,507</b>	<b>31,992</b>	<b>39,443</b>	<b>5,276,163</b>	<b>3,160,645</b>	<b>733,144</b>	<b>955,735</b>	<b>426,639</b>
<b>334,149</b>	<b>257,496</b>	<b>31,012</b>	<b>45,641</b>	<b>5,190,370</b>	<b>3,061,953</b>	<b>706,581</b>	<b>955,717</b>	<b>466,118</b>
..	..	..	..	105	103	..	..	2
..	..	..	..	82	80	..	..	2
..	..	..	..	89	87	..	..	2
..	..	..	..	100	98	..	..	2
*1	*1	..	..	*352	*343	..	..	9
*1	*1	..	..	*352	*343	..	..	9
*1	*1	..	..	361	348	..	..	13
*1	*1	..	..	*361	*348	..	..	*13
..	..	..	..	*947	*802	..	..	*145
..	..	..	..	*978	*835	..	..	*144
..	..	..	..	*983	*808	..	..	*175
..	..	..	..	*987	*822	..	..	*165
*76	*76	..	..	1,890	1,890	..	..	..
*75	*75	..	..	*1,912	*1,912	..	..	..
*80	*80	..	..	*2,200	*2,200	..	..	..
*92	*92	..	..	*2,245	*2,245	..	..	..
18	18	..	..	1,046	1,020	..	..	27
17	17	..	..	1,030	992	..	..	38
17	17	..	..	1,038	994	..	..	44
18	18	..	..	1,053	1,001	..	..	52
79	79	..	..	310	49	261	..	..
82	82	..	..	323	53	271	..	..
94	94	..	..	322	72	250	..	..
92	92	..	..	212	137	75	..	..
*13	*12	..	*1	653	653	..	..	..
*14	*13	..	*1	662	662	..	..	..
*15	*13	..	*2	629	629	..	..	..
*15	*13	..	*2	598	598	..	..	..
..	..	..	..	132	95	..	..	38
..	..	..	..	137	101	..	..	35
..	..	..	..	*137	*91	..	..	*45
..	..	..	..	*145	*104	..	..	*41
..	..	..	..	*212	*211	..	..	*2
..	..	..	..	*167	*166	..	..	*1
..	..	..	..	*171	*170	..	..	*1
..	..	..	..	*183	*182	..	..	*1
61,246	31,392	28,275	1,579	602,562	110,323	357,230	101,429	33,580
63,265	31,272	30,139	1,854	599,707	100,447	364,520	101,299	33,441
61,887	30,268	29,553	2,066	591,893	99,621	356,398	100,731	35,143
61,095	30,057	28,876	2,162	584,334	97,526	350,866	101,197	34,745
..	..	..	..	666	666	..	..	..
..	..	..	..	671	671	..	..	..
..	..	..	..	658	658	..	..	..
..	..	..	..	696	696	..	..	..
225	196	0	29	10,707	193	8,026	..	2,488
237	200	..	37	11,123	37	8,677	..	2,408
250	200	..	50	11,279	159	8,343	..	2,777
267	200	..	68	11,241	96	7,827	..	3,319

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Cuba	2016	20,459	20,334	64	..	*21	*39	..
	2017	20,558	20,394	83	..	*21	*60	..
	2018	20,837	20,524	146	..	*44	*124	..
	2019	20,703	20,328	125	..	*65	*186	..
Curaçao	2016	884	735	..	..	130	19	..
	2017	891	704	..	..	169	19	..
	2018	866	614	..	..	234	19	..
	2019	879	651	..	..	208	20	..
Dominica	2016	157	120	36	..	1	0	..
	2017	131	103	27	..	1	0	..
	2018	110	*85	24	..	1	0	..
	2019	138	117	20	..	*1	0	..
Dominican Republic	2016	18,690	16,773	1,519	..	323	75	..
	2017	19,036	16,309	2,196	..	390	140	..
	2018	19,651	17,144	1,780	..	497	230	..
	2019	19,857	18,121	928	..	552	256	..
El Salvador	2016	6,083	3,139	1,344	..	..	24	1,576
	2017	5,615	2,077	1,704	..	..	265	1,569
	2018	5,402	1,937	1,631	..	..	289	1,545
	2019	6,071	2,582	1,526	..	..	489	1,474
Greenland	2016	490	89	401	..	..	..	..
	2017	518	130	388	..	..	..	..
	2018	*530	*130	*400	..	..	..	..
	2019	*520	*128	*392	..	..	..	..
Grenada	2016	221	218	..	..	..	2	..
	2017	230	227	..	..	..	3	..
	2018	234	231	..	..	..	3	..
	2019	243	239	..	..	..	3	..
Guatemala	2016	11,789	7,122	3,971	..	215	192	289
	2017	12,272	5,816	5,787	..	218	198	253
	2018	13,568	7,572	5,218	..	320	208	250
	2019	*14,083	*8,855	4,497	..	221	199	312
Haiti	2016	1,086	1,013	71	..	..	2	..
	2017	1,058	928	127	..	..	3	..
	2018	1,048	848	197	..	..	3	..
	2019	1,064	860	200	..	..	3	..
Honduras	2016	9,219	5,505	2,246	..	583	885	..
	2017	9,385	4,820	2,971	..	578	924	93
	2018	9,629	4,253	3,158	..	929	993	297
	2019	10,439	5,779	2,430	..	818	1,116	296
Jamaica	2016	4,342	4,002	118	..	207	15	..
	2017	4,360	3,873	154	..	289	44	..
	2018	4,402	3,875	179	..	302	46	..
	2019	4,434	3,961	155	..	272	46	..
Mexico	2016	320,565	262,310	30,698	10,567	10,378	464	6,148
	2017	322,063	261,726	31,982	10,883	10,442	1,085	5,945
	2018	357,593	279,725	32,526	13,675	12,877	1,363	17,427
	2019	344,176	266,753	23,716	11,190	16,880	7,057	18,580
Montserrat	2016	14	14	..	..	..	..	..
	2017	13	13	..	..	..	..	..
	2018	14	14	..	..	..	..	..
	2019	14	14	..	..	..	0	..
Nicaragua	2016	4,591	2,728	426	..	729	2	706
	2017	4,525	2,657	468	..	635	14	751
	2018	4,636	2,599	411	..	801	24	801
	2019	4,574	2,815	227	..	730	24	778

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
949	949	..	..	19,509	19,385	64	..	*60
963	963	..	..	19,595	19,431	83	..	*81
763	763	..	..	20,074	19,761	146	..	*168
842	842	..	..	19,861	19,486	125	..	*251
160	160	..	..	724	575	..	..	149
74	74	..	..	817	629	..	..	188
114	114	..	..	752	500	..	..	252
43	43	..	..	836	608	..	..	228
*44	*44	..	..	113	75	36	..	1
*44	*44	..	..	87	58	27	..	1
*44	*44	..	..	66	41	24	..	1
*44	*44	..	..	94	73	20	..	*1
1,962	1,905	6	51	16,728	14,869	1,513	..	347
1,919	1,821	6	92	17,117	14,489	2,190	..	438
2,011	1,856	7	148	17,640	15,288	1,773	..	580
3,512	3,348	..	164	16,345	14,774	928	..	643
742	634	83	24	5,342	2,505	1,261	..	1,576
933	678	85	170	4,682	1,399	1,619	..	1,664
980	737	83	160	4,422	1,200	1,548	..	1,675
1,180	826	81	273	4,891	1,756	1,445	..	1,690
..	..	..	..	490	89	401	..	..
..	..	..	..	518	130	388	..	..
..	..	..	..	*530	*130	*400	..	..
..	..	..	..	*520	*128	*392	..	..
2	2	..	..	219	217	..	..	2
2	2	..	..	228	225	..	..	3
3	3	..	..	231	228	..	..	3
3	3	..	..	239	236	..	..	3
911	891	20	..	10,878	6,231	3,951	..	696
783	761	22	..	11,490	5,055	5,765	..	669
1,046	1,018	27	..	12,522	6,554	5,191	..	778
1,335	1,308	27	..	*12,748	*7,547	4,470	..	732
37	37	..	..	1,049	976	71	..	2
23	23	..	..	1,035	905	127	..	3
21	21	..	..	1,027	827	197	..	3
22	22	..	..	1,042	839	200	..	3
1,269	1,269	..	..	7,950	4,236	2,246	..	1,468
1,511	1,511	..	..	7,875	3,309	2,971	..	1,595
1,647	1,647	..	..	7,982	2,606	3,158	..	2,219
1,844	1,844	..	..	8,595	3,935	2,430	..	2,230
1,786	1,564	..	222	2,556	2,438	118	..	..
1,827	1,494	..	333	2,533	2,379	154	..	..
1,841	1,493	..	348	2,561	2,382	179	..	..
1,985	1,667	..	318	2,449	2,294	155	..	..
54,364	45,079	893	8,392	266,201	217,231	29,805	10,567	8,598
62,985	52,566	942	9,477	259,078	209,160	31,040	10,883	7,995
64,651	52,967	905	10,779	292,942	226,758	31,621	13,675	20,888
59,882	46,466	789	12,627	284,294	220,287	22,927	11,190	29,890
..	..	..	..	14	14	..	..	..
..	..	..	..	13	13	..	..	..
..	..	..	..	14	14	..	..	..
..	..	..	..	14	14	..	..	0
589	588	1	..	4,002	2,140	425	..	1,437
711	711	0	..	3,814	1,946	468	..	1,400
735	735	0	..	3,901	1,864	411	..	1,626
888	888	..	..	3,686	1,927	227	..	1,533



Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Panama	2016	10,885	3,666	6,523	..	625	71	..
	2017	11,054	3,141	7,256	..	491	156	9
	2018	11,353	2,657	7,858	..	588	233	18
	2019	11,663	5,527	5,096	..	725	295	20
Puerto Rico	2016	20,644	20,262	71	..	193	118	..
	2017	16,371	16,013	51	..	149	159	..
	2018	17,453	17,226	38	..	108	81	..
	2019	18,886	18,444	41	..	159	242	..
Sint Maarten (Dutch part)	2016	*362	*362	..	..	..	..	..
	2017	*300	*300	..	..	..	..	..
	2018	*291	*291	..	..	..	..	..
	2019	*296	*296	..	..	..	..	..
St. Kitts-Nevis	2016	*228	*217	..	..	8	3	..
	2017	232	221	..	..	8	3	..
	2018	*232	*221	..	..	8	3	..
	2019	*235	*224	..	..	*8	*3	..
St. Lucia	2016	391	391	..	..	..	..	..
	2017	400	400	..	..	..	..	..
	2018	404	399	..	..	..	5	..
	2019	413	408	..	..	..	*5	..
St. Pierre-Miquelon	2016	48	48	..	..	0	..	..
	2017	49	49	..	..	..	..	..
	2018	51	51	..	..	..	..	..
	2019	52	52	..	..	..	..	..
St. Vincent-Grenadines	2016	153	136	16	..	..	1	..
	2017	151	129	20	..	..	1	..
	2018	151	125	24	..	..	2	..
	2019	*163	*136	*25	..	..	*2	..
Trinidad and Tobago	2016	9,419	9,414	..	..	..	5	..
	2017	9,323	9,318	..	..	0	5	..
	2018	9,225	9,220	..	..	0	5	..
	2019	9,188	9,183	..	..	0	5	..
Turks and Caicos Islands	2016	*245	*245	..	..	..	..	..
	2017	*293	*293	..	..	..	..	..
	2018	*258	*257	..	..	..	1	..
	2019	*261	*260	..	..	..	1	..
United States	2016	4,322,038	2,886,040	292,113	839,918	229,471	50,334	24,162
	2017	4,286,429	2,770,054	325,114	838,861	257,249	70,980	24,170
	2018	4,455,439	2,912,041	317,004	841,329	275,834	85,184	24,046
	2019	4,391,761	2,818,743	310,571	843,330	298,200	97,478	23,438
United States Virgin Is.	2016	*797	*765	..	..	0	*33	..
	2017	*611	*589	..	..	0	*21	..
	2018	*626	*605	..	..	0	*21	..
	2019	*672	*647	..	..	0	*24	..
<b>America, South</b>	<b>2016</b>	<b>1,167,384</b>	<b>432,408</b>	<b>666,824</b>	<b>24,149</b>	<b>40,807</b>	<b>3,197</b>	<b>0</b>
	<b>2017</b>	<b>1,160,969</b>	<b>410,688</b>	<b>671,374</b>	<b>21,827</b>	<b>51,584</b>	<b>5,433</b>	<b>64</b>
	<b>2018</b>	<b>1,185,415</b>	<b>403,382</b>	<b>689,521</b>	<b>22,127</b>	<b>59,969</b>	<b>10,201</b>	<b>214</b>
	<b>2019</b>	<b>1,191,139</b>	<b>399,377</b>	<b>679,389</b>	<b>24,056</b>	<b>72,599</b>	<b>15,517</b>	<b>202</b>
Argentina	2016	146,353	99,479	38,028	*8,285	547	14	..
	2017	145,618	97,257	41,645	6,088	612	16	..
	2018	152,224	102,820	41,430	6,453	1,413	108	..
	2019	145,990	95,389	36,878	7,927	4,996	800	..
Bolivia (Plur. State of)	2016	9,307	7,546	1,720	..	35	6	..
	2017	9,617	7,317	2,234	..	60	6	..
	2018	9,855	7,056	2,612	..	59	127	..
	2019	10,172	6,662	3,251	..	70	188	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
32	32	..	..	10,853	3,634	6,523	..	697
32	32	..	..	11,022	3,109	7,256	..	657
161	161	..	..	11,192	2,496	7,858	..	838
1,167	1,167	..	..	10,495	4,359	5,096	..	1,040
250	250	..	..	20,394	20,012	71	..	311
210	210	..	..	16,161	15,803	51	..	308
220	220	..	..	17,233	17,006	38	..	189
*230	*230	..	..	18,656	18,214	41	..	401
..	..	..	..	*362	*362	..	..	..
..	..	..	..	*300	*300	..	..	..
..	..	..	..	*291	*291	..	..	..
..	..	..	..	*296	*296	..	..	..
*1	*1	..	..	*227	*216	..	..	11
*1	*1	..	..	231	220	..	..	11
*1	*1	..	..	*231	*220	..	..	11
*1	*1	..	..	*234	*223	..	..	*11
..	..	..	..	391	391	..	..	..
..	..	..	..	400	400	..	..	..
..	..	..	..	404	399	..	..	5
..	..	..	..	413	408	..	..	*5
..	..	..	..	48	48	..	..	0
..	..	..	..	49	49	..	..	..
..	..	..	..	51	51	..	..	..
..	..	..	..	52	52	..	..	..
0	..	..	0	153	136	16	..	1
1	..	..	1	150	129	20	..	1
1	..	..	1	150	125	24	..	1
*1	..	..	*1	*162	*136	*25	..	*1
82	82	..	..	9,337	9,332	..	..	5
82	82	..	..	9,241	9,236	..	..	5
76	76	..	..	9,149	9,144	..	..	5
76	76	..	..	9,112	9,108	..	..	5
..	..	..	..	*245	*245	..	..	..
..	..	..	..	*293	*293	..	..	..
..	..	..	..	*258	*257	..	..	1
..	..	..	..	*261	*260	..	..	1
180,721	160,329	1,517	18,875	4,141,317	2,725,711	290,596	839,918	285,092
185,940	161,948	1,656	22,337	4,100,488	2,608,106	323,458	838,861	330,062
193,271	165,979	1,417	25,875	4,262,168	2,746,063	315,587	841,329	359,190
199,497	168,249	1,239	30,010	4,192,264	2,650,495	309,332	843,330	389,106
*19	..	..	*19	*778	*765	..	..	14
*14	..	..	*14	*597	*589	..	..	8
*14	..	..	*14	*612	*605	..	..	8
*17	..	..	*17	*655	*647	..	..	8
<b>141,499</b>	<b>117,419</b>	<b>23,915</b>	<b>165</b>	<b>1,025,884</b>	<b>314,988</b>	<b>642,908</b>	<b>24,149</b>	<b>43,838</b>
<b>141,939</b>	<b>120,059</b>	<b>21,524</b>	<b>356</b>	<b>1,019,030</b>	<b>290,629</b>	<b>649,850</b>	<b>21,827</b>	<b>56,724</b>
<b>146,375</b>	<b>122,941</b>	<b>22,725</b>	<b>710</b>	<b>1,039,039</b>	<b>280,442</b>	<b>666,796</b>	<b>22,127</b>	<b>69,675</b>
<b>148,271</b>	<b>123,343</b>	<b>23,031</b>	<b>1,897</b>	<b>1,042,868</b>	<b>276,033</b>	<b>656,358</b>	<b>24,056</b>	<b>86,420</b>
14,827	14,781	46	..	131,526	84,698	37,982	*8,285	561
14,744	14,698	46	..	130,874	82,559	41,599	6,088	628
14,744	14,698	46	..	137,480	88,122	41,384	6,453	1,521
14,744	14,698	46	..	131,246	80,691	36,832	7,927	5,796
285	281	4	..	9,022	7,265	1,716	..	41
352	348	4	..	9,265	6,969	2,230	..	66
362	356	7	..	9,493	6,701	2,606	..	186
435	429	7	..	9,737	6,234	3,245	..	258

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Brazil	2016	578,897	148,549	380,911	15,864	33,488	85	..
	2017	589,326	159,476	370,906	15,739	42,373	832	..
	2018	601,396	144,815	388,971	15,674	48,475	3,461	..
	2019	626,329	149,682	397,877	16,129	55,986	6,655	..
Chile	2016	79,308	50,946	23,274	..	2,449	2,639	0
	2017	79,417	50,602	21,315	..	3,521	3,915	64
	2018	82,313	49,926	23,367	..	3,588	5,218	214
	2019	84,558	50,564	22,477	..	4,897	6,419	202
Colombia	2016	74,574	27,605	46,918	..	51	..	..
	2017	75,125	17,641	57,476	..	3	5	..
	2018	78,426	21,563	56,809	..	43	11	..
	2019	80,590	25,759	54,636	..	63	132	..
Ecuador	2016	27,314	11,357	15,834	..	84	39	..
	2017	28,033	7,833	20,089	..	73	37	..
	2018	29,198	8,402	20,678	..	80	38	..
	2019	32,267	7,479	24,664	..	86	38	..
Falkland Is. (Malvinas)	2016	21	15	..	..	6	0	..
	2017	20	14	..	..	5	0	..
	2018	19	14	..	..	5	0	..
	2019	20	14	..	..	5	0	..
Guyana	2016	1,081	1,076	..	..	0	5	..
	2017	1,105	1,098	..	..	0	7	..
	2018	1,136	1,125	..	..	0	11	..
	2019	1,135	1,123	..	..	0	11	..
Paraguay	2016	63,771	1	63,770	..	..	..	..
	2017	59,685	2	59,684	..	..	..	..
	2018	59,212	2	59,211	..	..	..	..
	2019	49,448	2	49,446	..	..	..	..
Peru	2016	52,720	26,630	24,785	..	1,064	241	..
	2017	52,743	22,265	29,075	..	1,073	330	..
	2018	54,982	21,946	30,737	..	1,502	797	..
	2019	57,038	23,088	31,462	..	1,655	833	..
Suriname	2016	2,031	1,239	783	..	..	9	..
	2017	2,122	1,187	926	..	..	9	..
	2018	2,293	1,284	1,000	..	..	10	..
	2019	2,337	1,375	952	..	..	10	..
Uruguay	2016	13,885	2,896	7,842	..	2,994	152	..
	2017	14,363	2,802	7,518	..	3,775	269	..
	2018	14,623	2,921	6,557	..	4,732	414	..
	2019	16,090	2,806	8,108	..	4,752	424	..
Venezuela (Bolivar. Rep.)	2016	118,122	55,068	62,959	..	88	7	..
	2017	103,796	43,194	60,507	..	88	7	..
	2018	99,737	41,510	58,150	..	71	6	..
	2019	85,166	35,432	49,637	..	88	9	..
<b>Asia</b>	<b>2016</b>	<b>12,388,583</b>	<b>9,611,703</b>	<b>1,774,684</b>	<b>476,522</b>	<b>301,459</b>	<b>135,674</b>	<b>88,541</b>
	<b>2017</b>	<b>13,104,361</b>	<b>10,098,118</b>	<b>1,817,416</b>	<b>507,231</b>	<b>370,043</b>	<b>209,256</b>	<b>102,298</b>
	<b>2018</b>	<b>13,787,110</b>	<b>10,508,762</b>	<b>1,858,943</b>	<b>577,728</b>	<b>470,077</b>	<b>314,234</b>	<b>57,365</b>
	<b>2019</b>	<b>14,238,341</b>	<b>10,631,628</b>	<b>1,977,488</b>	<b>655,314</b>	<b>521,694</b>	<b>392,362</b>	<b>59,855</b>
Afghanistan	2016	1,394	155	1,239	..	..	..	..
	2017	1,420	176	1,244	..	..	..	..
	2018	1,266	200	1,066	..	..	..	..
	2019	1,592	183	1,388	..	..	21	..
Armenia	2016	7,315	2,581	2,350	2,381	2	1	..
	2017	7,765	2,872	2,269	2,620	2	3	..
	2018	7,791	3,376	2,318	2,076	2	19	..
	2019	7,680	3,047	2,371	2,198	3	61	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
98,537	77,063	21,412	62	480,360	71,486	359,499	15,864	33,511
98,179	79,383	18,593	203	491,147	80,093	352,313	15,739	43,002
101,164	81,273	19,330	561	500,232	63,542	369,641	15,674	51,375
102,385	81,249	19,427	1,709	523,944	68,433	378,450	16,129	60,932
6,976	6,815	161	0	72,332	44,131	23,113	..	5,088
7,384	7,338	44	2	72,033	43,264	21,271	..	7,497
6,975	6,910	60	5	75,338	43,016	23,307	..	9,015
6,525	6,488	30	8	78,033	44,076	22,447	..	11,510
8,641	8,511	130	..	65,933	19,094	46,788	..	51
8,568	8,420	148	..	66,557	9,221	57,328	..	8
9,483	9,322	161	..	68,943	12,241	56,648	..	54
10,476	10,277	199	..	70,115	15,482	54,437	..	195
4,771	4,041	730	..	22,543	7,316	15,104	..	123
5,142	4,061	1,082	..	22,891	3,772	19,008	..	111
5,585	4,211	1,374	..	23,613	4,191	19,304	..	118
6,019	4,342	1,677	..	26,247	3,137	22,987	..	123
*2	*2	..	..	19	13	..	..	6
*2	*2	..	..	18	12	..	..	5
*2	*2	..	..	17	12	..	..	6
2	2	..	..	18	12	..	..	5
82	82	..	..	999	994	..	..	5
82	82	..	..	1,022	1,015	..	..	7
82	82	..	..	1,054	1,043	..	..	11
30	30	..	..	1,105	1,094	..	..	11
..	..	..	..	63,771	1	63,770	..	..
..	..	..	..	59,685	2	59,684	..	..
..	..	..	..	59,212	2	59,211	..	..
..	..	..	..	49,448	2	49,446	..	..
2,255	1,606	649	..	50,465	25,024	24,136	..	1,305
2,399	1,674	682	43	50,344	20,591	28,393	..	1,360
2,615	1,821	748	46	52,367	20,125	29,989	..	2,253
2,574	1,827	693	54	54,464	21,261	30,769	..	2,434
1,450	667	783	..	582	573	..	..	9
1,451	525	926	..	671	662	..	..	9
1,705	705	1,000	..	*589	*579	..	..	10
1,734	782	952	..	603	593	..	..	10
1,611	1,601	..	10	12,274	1,295	7,842	..	3,137
1,650	1,635	..	15	12,713	1,167	7,518	..	4,028
1,767	1,744	..	23	12,857	1,177	6,557	..	5,123
1,702	1,668	..	34	14,388	1,138	8,108	..	5,142
2,062	1,969	..	93	116,060	53,099	62,959	..	2
1,985	1,892	..	93	101,811	41,302	60,507	..	2
1,893	1,818	..	75	97,844	39,692	58,150	..	2
1,644	1,552	..	92	83,521	33,880	49,637	..	4
<b>1,115,969</b>	<b>1,022,327</b>	<b>13,931</b>	<b>79,711</b>	<b>11,272,614</b>	<b>8,589,376</b>	<b>1,760,753</b>	<b>476,522</b>	<b>445,963</b>
<b>1,138,642</b>	<b>1,034,314</b>	<b>12,385</b>	<b>91,943</b>	<b>11,965,720</b>	<b>9,063,804</b>	<b>1,805,031</b>	<b>507,231</b>	<b>589,654</b>
<b>1,216,268</b>	<b>1,116,658</b>	<b>10,121</b>	<b>89,489</b>	<b>12,570,842</b>	<b>9,392,104</b>	<b>1,848,823</b>	<b>577,728</b>	<b>752,187</b>
<b>1,285,069</b>	<b>1,173,723</b>	<b>9,617</b>	<b>101,729</b>	<b>12,953,272</b>	<b>9,457,904</b>	<b>1,967,872</b>	<b>655,314</b>	<b>872,182</b>
*318	*5	*313	..	1,076	150	927	..	..
*322	*8	*314	..	1,098	168	930	..	..
*287	*7	*280	..	979	193	786	..	..
*306	*6	*300	..	1,286	177	1,088	..	21
..	..	..	..	7,315	2,581	2,350	2,381	3
2	..	..	2	7,763	2,872	2,269	2,620	2
14	..	..	14	7,777	3,376	2,318	2,076	7
47	..	..	47	7,632	3,047	2,371	2,198	17

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Azerbaijan	2016	24,953	22,936	1,959	..	23	35	..
	2017	24,321	22,515	1,746	..	22	37	..
	2018	25,229	23,339	1,768	..	83	39	..
	2019	26,073	24,359	1,565	..	105	44	..
Bahrain	2016	28,479	28,469	..	..	1	9	..
	2017	29,193	29,183	..	..	*1	*9	..
	2018	29,516	29,506	..	..	*1	*9	..
	2019	33,453	33,442	..	..	*1	*10	..
Bangladesh	2016	68,909	67,650	1,020	..	6	233	..
	2017	73,249	71,934	1,041	..	6	268	..
	2018	78,612	77,229	1,086	..	6	291	..
	2019	84,551	83,407	769	..	6	370	..
Bhutan	2016	7,954	0	7,953	..	1	1	..
	2017	7,730	0	7,728	..	1	1	..
	2018	6,960	0	6,959	..	1	1	..
	2019	8,859	0	8,857	..	*1	1	..
Brunei Darussalam	2016	4,270	4,269	..	..	..	1	..
	2017	4,157	4,155	..	..	..	2	..
	2018	4,294	4,292	..	..	..	2	..
	2019	4,933	4,931	..	..	..	2	..
Cambodia	2016	5,812	3,111	2,698	..	..	3	..
	2017	6,902	4,105	2,792	..	..	5	..
	2018	8,475	3,581	4,879	..	..	16	..
	2019	8,675	4,557	4,025	..	..	93	..
China	2016	6,133,158	4,437,068	1,184,048	213,287	237,070	61,586	99
	2017	6,604,476	4,754,595	1,197,865	248,100	297,230	106,338	348
	2018	7,166,133	5,096,318	1,231,787	294,359	365,971	177,517	181
	2019	7,503,458	5,220,150	1,304,440	348,350	406,030	224,460	28
China, Hong Kong SAR	2016	38,154	38,154	..	..	..	..	..
	2017	36,970	36,970	..	..	..	..	..
	2018	36,565	36,565	..	..	..	..	..
	2019	36,911	36,911	..	..	..	..	..
China, Macao SAR	2016	988	988	..	..	..	..	..
	2017	1,465	1,465	..	..	..	..	..
	2018	653	653	..	..	..	..	..
	2019	830	830	..	..	..	..	..
Cyprus	2016	4,887	4,515	..	..	226	146	..
	2017	5,004	4,621	..	..	211	172	..
	2018	5,061	4,640	..	..	221	199	..
	2019	5,141	4,685	..	..	239	218	..
Georgia	2016	11,574	2,236	9,329	..	9	..	..
	2017	11,531	2,233	9,210	..	88	..	..
	2018	12,149	2,115	9,949	..	84	..	..
	2019	11,857	2,840	8,932	..	85	..	..
India	2016	1,432,358	1,188,280	122,507	37,916	35,530	12,578	*35,547
	2017	1,490,257	1,217,575	126,235	38,346	38,486	24,613	*45,002
	2018	1,521,958	1,244,959	135,164	37,813	*64,294	*39,728	..
	2019	1,576,740	1,253,707	156,049	46,472	*69,949	*50,563	..
Indonesia	2016	233,367	201,209	21,475	..	6	21	10,656
	2017	*283,647	*251,766	18,632	..	*6	29	13,214
	2018	293,203	260,211	19,774	..	..	7	13,211
	2019	299,603	266,765	19,749	..	..	10	13,079
Iran (Islamic Rep. of)	2016	289,116	265,799	16,421	6,620	250	4	22
	2017	307,992	285,012	15,051	7,514	306	85	24
	2018	307,968	284,508	15,051	7,514	585	286	24
	2019	322,778	298,753	15,865	7,148	555	435	22

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,254	2,237	..	17	22,699	20,699	1,959	..	41
2,089	2,070	..	20	22,232	20,445	1,746	..	40
2,096	2,096	..	0	23,133	21,243	1,768	..	122
2,069	2,069	..	0	24,004	22,290	1,565	..	150
11,423	11,423	..	..	17,056	17,046	..	..	10
11,244	11,244	..	..	17,949	17,939	..	..	*10
11,683	11,683	..	..	17,833	17,823	..	..	*10
15,236	15,236	..	..	18,217	18,206	..	..	*11
17,264	17,264	..	..	51,645	50,386	1,020	..	239
17,237	17,237	..	..	56,012	54,697	1,041	..	274
17,244	17,244	..	..	61,368	59,985	1,086	..	297
16,861	16,861	..	..	67,690	66,546	769	..	376
..	..	..	..	7,954	0	7,953	..	1
..	..	..	..	7,730	0	7,728	..	2
..	..	..	..	6,960	0	6,959	..	2
..	..	..	..	8,859	0	8,857	..	*2
427	427	..	..	3,843	3,842	..	..	1
433	433	..	..	3,724	3,722	..	..	2
440	440	..	..	3,854	3,852	..	..	2
912	912	..	..	4,021	4,019	..	..	2
..	..	..	..	5,812	3,111	2,698	..	3
..	..	..	..	6,902	4,105	2,792	..	5
..	..	..	..	8,475	3,581	4,879	..	16
..	..	..	..	8,675	4,557	4,025	..	93
359,846	359,846	..	..	5,773,312	4,077,222	1,184,048	213,287	298,755
385,598	385,598	..	..	6,218,878	4,368,997	1,197,865	248,100	403,916
413,311	413,311	..	..	6,752,822	4,683,007	1,231,787	294,359	543,669
423,354	423,354	..	..	7,080,104	4,796,796	1,304,440	348,350	630,518
..	..	..	..	38,154	38,154	..	..	..
..	..	..	..	36,970	36,970	..	..	..
..	..	..	..	36,565	36,565	..	..	..
..	..	..	..	36,911	36,911	..	..	..
201	201	..	..	787	787	..	..	..
205	205	..	..	1,260	1,260	..	..	..
179	179	..	..	474	474	..	..	..
217	217	..	..	613	613	..	..	..
98	46	..	52	4,789	4,469	..	..	320
108	47	..	61	4,896	4,574	..	..	322
122	51	..	71	4,938	4,589	..	..	349
138	51	..	87	5,003	4,633	..	..	370
..	..	..	..	11,574	2,236	9,329	..	9
..	..	..	..	11,531	2,233	9,210	..	88
..	..	..	..	12,149	2,115	9,949	..	84
..	..	..	..	11,857	2,840	8,932	..	85
198,432	194,764	129	*3,539	1,233,926	993,516	122,378	37,916	80,116
184,303	180,391	112	*3,800	1,305,954	1,037,184	126,123	38,346	104,301
175,633	172,645	270	*2,718	1,346,325	1,072,314	134,894	37,813	*101,304
217,942	210,869	280	*6,793	1,358,798	1,042,838	155,769	46,472	*113,719
66,909	52,603	7,590	6,716	166,458	148,606	13,885	..	3,967
58,901	43,997	6,207	8,697	*224,746	*207,769	12,425	..	4,552
16,322	16,322	..	..	276,881	243,889	19,774	..	13,218
17,848	17,848	..	..	281,755	248,917	19,749	..	13,088
6,482	6,482	..	..	282,634	259,317	16,421	6,620	276
7,905	7,905	..	..	300,087	277,107	15,051	7,514	415
7,905	7,905	..	..	300,063	276,603	15,051	7,514	895
4,893	4,893	..	..	317,885	293,860	15,865	7,148	1,013

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Iraq	2016	80,087	76,659	3,371	..	..	57	..
	2017	83,947	81,714	2,176	..	..	57	..
	2018	82,507	80,312	1,818	..	..	377	..
	2019	95,816	93,941	1,818	..	..	57	..
Israel	2016	66,976	65,432	0	..	0	1,544	..
	2017	67,674	65,742	0	..	180	1,511	242
	2018	68,894	66,978	0	..	183	1,574	159
	2019	72,524	68,796	..	..	184	3,294	250
Japan	2016	1,070,871	892,019	85,665	18,060	6,166	45,761	23,200
	2017	1,080,974	872,308	91,060	32,912	6,490	55,069	23,136
	2018	1,068,464	823,457	88,348	64,929	7,481	62,668	21,581
	2019	1,044,978	795,424	87,256	63,779	7,673	68,953	21,894
Jordan	2016	*19,563	*18,704	42	..	391	427	..
	2017	19,760	18,354	38	..	449	920	..
	2018	19,437	17,293	23	..	707	1,415	..
	2019	20,609	17,629	18	..	875	2,086	..
Kazakhstan	2016	106,675	94,644	11,620	..	274	137	..
	2017	103,195	91,485	11,210	..	339	161	..
	2018	107,329	96,187	10,330	..	427	385	..
	2019	106,879	95,346	9,994	..	707	832	..
Korea, Dem.Ppl's.Rep.	2016	16,272	3,459	12,800	..	..	13	..
	2017	14,451	2,537	11,900	..	..	14	..
	2018	15,044	2,229	12,800	..	..	15	..
	2019	13,579	2,563	11,000	..	..	16	..
Korea, Republic of	2016	562,603	385,386	6,634	161,995	1,683	5,123	1,782
	2017	566,880	400,148	7,006	148,427	2,169	7,056	2,074
	2018	590,111	435,292	7,270	133,505	2,465	9,208	2,370
	2019	581,492	410,786	6,249	145,910	2,681	12,996	2,870
Kuwait	2016	70,085	70,085	..	..	..	0	..
	2017	72,790	72,788	..	..	..	2	..
	2018	74,107	74,103	..	..	..	4	..
	2019	75,184	75,082	..	..	..	102	..
Kyrgyzstan	2016	13,262	1,768	11,494	..	..	..	..
	2017	15,514	1,311	14,203	..	..	..	..
	2018	15,728	1,410	14,318	..	..	..	..
	2019	15,100	1,256	13,844	..	..	..	..
Lao People's Dem. Rep.	2016	25,068	7,120	17,946	..	..	2	..
	2017	33,227	12,441	20,777	..	..	9	..
	2018	36,762	13,703	22,999	..	..	60	..
	2019	31,133	12,194	18,899	..	..	40	..
Lebanon	2016	21,457	21,047	382	..	..	28	..
	2017	23,411	22,955	415	..	..	41	..
	2018	23,150	22,754	348	..	..	48	..
	2019	23,819	22,736	965	..	..	118	..
Malaysia	2016	156,665	136,336	20,019	..	..	310	..
	2017	164,509	137,599	26,580	..	..	330	..
	2018	170,578	143,621	26,325	..	..	632	..
	2019	175,778	148,168	26,666	..	..	*943	..
Maldives	2016	672	660	..	..	2	10	..
	2017	725	709	..	..	2	14	..
	2018	772	756	..	..	2	14	..
	2019	847	823	..	..	3	21	..
Mongolia	2016	5,667	5,413	87	..	159	8	..
	2017	6,027	5,759	86	..	155	27	..
	2018	6,535	6,055	81	..	340	59	..
	2019	6,900	6,416	*85	..	*340	*59	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
57	..	..	57	80,030	76,659	3,371	..	..
57	..	..	57	83,890	81,714	2,176	..	..
377	..	..	377	82,130	80,312	1,818	..	..
57	..	..	57	95,759	93,941	1,818	..	..
4,069	2,525	0	1,544	62,907	62,907	0	..	0
4,265	2,333	0	1,933	63,409	63,409	0	..	0
5,047	3,131	0	1,916	63,847	63,847	0	..	0
7,523	3,796	..	3,727	65,000	65,000	..	..	..
147,360	83,196	3,316	60,848	923,511	808,823	82,349	18,060	14,279
151,108	80,645	2,704	67,759	929,866	791,663	88,356	32,912	16,936
161,951	86,312	3,290	72,349	906,514	737,145	85,058	64,929	19,382
165,742	86,470	2,951	76,320	879,236	708,954	84,304	63,779	22,199
*200	*200	..	..	*19,363	*18,504	42	..	818
*200	*200	..	..	19,560	18,154	38	..	1,369
*139	*139	..	..	19,298	17,154	23	..	2,122
835	835	..	..	19,773	16,794	18	..	2,961
1	..	..	1	106,674	94,644	11,620	..	410
1	..	..	1	103,194	91,485	11,210	..	499
1	..	..	1	107,328	96,187	10,330	..	811
1	..	..	1	106,878	95,346	9,994	..	1,538
..	..	..	..	16,272	3,459	12,800	..	13
..	..	..	..	14,451	2,537	11,900	..	14
..	..	..	..	15,044	2,229	12,800	..	15
..	..	..	..	13,579	2,563	11,000	..	16
35,013	34,224	..	789	527,590	351,162	6,634	161,995	7,799
33,652	32,688	..	964	533,228	367,460	7,006	148,427	10,335
35,726	34,603	..	1,123	554,386	400,689	7,270	133,505	12,921
31,840	30,495	..	1,345	549,652	380,291	6,249	145,910	17,202
0	..	..	0	70,085	70,085	..	..	..
2	..	..	2	72,788	72,788	..	..	..
4	..	..	4	74,103	74,103	..	..	..
102	..	..	102	75,082	75,082	..	..	..
26	26	..	..	13,236	1,742	11,494	..	..
15	15	..	..	15,499	1,296	14,203	..	..
39	39	..	..	15,689	1,371	14,318	..	..
32	32	..	..	15,068	1,224	13,844	..	..
..	..	..	..	25,068	7,120	17,946	..	2
..	..	..	..	33,227	12,441	20,777	..	9
..	..	..	..	36,762	13,703	22,999	..	60
..	..	..	..	31,133	12,194	18,899	..	40
8,397	8,369	..	28	13,060	12,678	382	..	..
8,913	8,872	..	41	14,498	14,083	415	..	..
7,916	7,868	..	48	15,234	14,886	348	..	..
9,117	8,999	..	118	14,702	13,737	965	..	..
6,223	6,223	..	..	150,442	130,113	20,019	..	310
5,252	5,247	5	0	159,257	132,352	26,575	..	330
7,163	7,104	0	59	163,415	136,517	26,325	..	573
7,584	7,498	..	*86	168,194	140,670	26,666	..	*857
*240	*240	..	..	432	420	..	..	12
*260	*260	..	..	465	449	..	..	16
*280	*280	..	..	492	476	..	..	16
*300	*300	..	..	547	523	..	..	24
87	..	87	..	5,580	5,413	..	..	167
86	..	86	..	5,941	5,759	..	..	182
81	..	81	..	6,454	6,055	..	..	399
*85	..	*85	..	6,815	6,416	..	..	*399



Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Myanmar	2016	20,248	8,123	12,125	..	..	..	..
	2017	20,055	8,864	11,191	..	..	..	..
	2018	22,883	11,641	11,228	..	..	14	..
	2019	23,778	14,328	9,369	..	..	81	..
Nepal	2016	4,244	..	4,237	..	6	1	..
	2017	4,639	0	4,632	..	6	1	..
	2018	4,902	0	4,895	..	6	1	..
	2019	6,181	0	6,173	..	7	1	..
Oman	2016	34,232	34,228	..	..	..	4	..
	2017	36,130	36,114	..	..	..	16	..
	2018	37,718	37,702	..	..	..	16	..
	2019	38,337	38,320	..	..	..	17	..
Other Asia	2016	264,130	220,023	9,856	31,661	1,458	1,132	..
	2017	270,281	235,640	8,780	22,446	1,722	1,692	..
	2018	275,577	235,595	7,852	27,682	1,707	2,740	0
	2019	274,191	227,207	8,753	32,323	1,892	4,014	1
Pakistan	2016	115,503	74,698	34,573	4,602	791	207	632
	2017	123,533	81,447	32,132	6,867	1,422	654	1,011
	2018	134,982	93,546	27,729	9,849	2,124	714	1,020
	2019	136,461	89,621	32,789	9,134	3,234	716	967
Philippines	2016	91,789	70,519	8,128	..	975	1,097	11,070
	2017	95,747	73,554	9,628	..	1,094	1,201	10,270
	2018	101,223	78,985	9,401	..	1,153	1,249	10,435
	2019	107,517	86,496	8,043	..	1,042	1,246	10,691
Qatar	2016	42,307	42,307	..	..	..	..	..
	2017	45,555	45,555	..	..	..	..	..
	2018	47,913	47,913	..	..	..	..	..
	2019	49,873	49,873	..	..	..	..	..
Saudi Arabia	2016	345,149	345,103	..	..	..	46	..
	2017	355,145	355,075	..	..	5	65	..
	2018	343,992	343,773	..	..	5	214	..
	2019	343,458	342,623	..	..	6	829	..
Singapore	2016	51,733	51,587	..	..	..	146	..
	2017	52,401	52,226	..	..	..	175	..
	2018	53,142	52,905	..	..	..	237	..
	2019	54,552	54,142	..	..	..	410	..
Sri Lanka	2016	14,363	9,721	4,221	..	347	75	..
	2017	15,004	10,381	4,039	..	367	217	..
	2018	15,985	9,072	6,401	..	326	186	..
	2019	16,726	11,218	4,802	..	348	357	..
State of Palestine	2016	537	495	..	..	..	43	..
	2017	546	501	..	..	..	45	..
	2018	420	360	..	..	..	60	..
	2019	811	691	..	..	..	120	..
Syrian Arab Republic	2016	18,202	17,273	929	..	..	..	..
	2017	18,412	17,658	754	..	..	..	..
	2018	18,210	17,456	754	..	..	..	..
	2019	17,586	16,832	754	..	..	..	..
Tajikistan	2016	17,232	608	16,624	..	..	..	..
	2017	18,144	1,011	17,133	..	..	..	..
	2018	19,743	1,348	18,395	..	..	..	..
	2019	20,676	1,507	19,169	..	..	..	..
Thailand	2016	188,265	180,891	3,651	..	345	3,377	1
	2017	181,940	171,453	4,833	..	1,110	4,543	2
	2018	182,288	168,326	7,783	..	1,641	4,537	1
	2019	190,681	175,418	6,446	..	3,670	5,146	1

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
3,030	2,389	641	..	17,218	5,734	11,484	..	..
6,499	5,749	750	..	13,557	3,116	10,441	..	..
12,396	8,779	3,602	14	10,487	2,862	7,625	..	..
14,415	10,929	3,405	81	9,363	3,399	5,964	..	..
155	..	155	..	4,089	..	4,082	..	7
156	..	156	..	4,483	0	4,476	..	7
157	..	157	..	4,745	0	4,738	..	6
161	..	161	..	6,019	0	6,012	..	7
..	..	..	..	34,232	34,228	..	..	4
..	..	..	..	36,130	36,114	..	..	16
..	..	..	..	37,718	37,702	..	..	16
..	..	..	..	38,337	38,320	..	..	17
36,863	35,782	..	1,081	227,267	184,241	9,856	31,661	1,509
36,034	34,433	..	1,601	234,246	201,207	8,780	22,446	1,813
41,765	39,108	..	2,657	233,811	196,487	7,852	27,682	1,789
42,095	38,332	..	3,763	232,096	188,875	8,753	32,323	2,144
2,314	1,682	..	632	113,189	73,016	34,573	4,602	998
2,726	1,715	..	1,011	120,807	79,732	32,132	6,867	2,076
2,983	1,963	..	1,020	131,999	91,583	27,729	9,849	2,838
2,980	2,013	..	967	133,481	87,608	32,789	9,134	3,950
*991	*974	*17	..	90,798	69,544	8,111	..	13,143
*1,376	*1,359	*17	..	94,371	72,195	9,611	..	12,565
*1,458	*1,441	*17	..	99,765	77,544	9,384	..	12,837
*1,475	*1,458	*17	..	106,042	85,038	8,026	..	12,979
39,757	39,757	..	..	2,550	2,550	..	..	..
42,813	42,813	..	..	2,742	2,742	..	..	..
46,380	46,380	..	..	1,533	1,533	..	..	..
47,942	47,942	..	..	1,930	1,930	..	..	..
84,490	84,490	..	..	260,659	260,613	..	..	46
90,143	90,143	..	..	265,002	264,932	..	..	70
151,161	151,161	..	..	192,831	192,612	..	..	219
149,601	149,601	..	..	193,857	193,022	..	..	835
3,520	3,520	..	..	48,212	48,066	..	..	146
3,990	3,990	..	..	48,410	48,235	..	..	175
4,733	4,733	..	..	48,409	48,172	..	..	237
4,497	4,497	..	..	50,055	49,645	..	..	410
902	91	739	73	13,461	9,630	3,482	..	349
1,184	86	964	134	13,821	10,296	3,075	..	450
1,409	87	1,232	89	14,577	8,985	5,169	..	423
1,207	*91	1,019	*96	15,519	11,127	3,783	..	609
177	156	..	21	360	339	..	..	21
154	132	..	23	392	369	..	..	23
137	107	..	30	284	254	..	..	30
160	100	..	60	651	591	..	..	60
646	646	..	..	17,556	16,627	929	..	..
717	717	..	..	17,695	16,941	754	..	..
672	672	..	..	17,538	16,784	754	..	..
580	580	..	..	17,006	16,252	754	..	..
..	..	..	..	17,232	608	16,624	..	..
..	..	..	..	18,144	1,011	17,133	..	..
..	..	..	..	19,743	1,348	18,395	..	..
..	..	..	..	20,676	1,507	19,169	..	..
51,810	48,817	19	2,974	136,455	132,074	3,632	..	749
55,688	51,659	22	4,006	126,251	119,793	4,811	..	1,648
64,128	60,089	38	4,001	118,161	108,237	7,745	..	2,178
68,932	64,358	35	4,538	121,749	111,059	6,411	..	4,279

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Timor-Leste	2016	415	413	2	..	..	1	..
	2017	430	427	2	..	..	1	..
	2018	453	450	2	..	..	1	..
	2019	518	515	2	..	..	*1	..
Turkey	2016	274,408	185,085	67,231	..	15,517	1,043	5,532
	2017	297,278	211,290	58,218	..	17,904	2,889	6,976
	2018	304,802	208,733	59,938	..	19,949	7,800	8,381
	2019	303,898	174,041	88,823	..	21,731	9,250	10,053
Turkmenistan	2016	22,534	22,534	..	..	..	..	..
	2017	22,534	22,531	3	..	..	..	..
	2018	22,534	22,531	3	..	..	..	..
	2019	22,534	22,531	3	..	..	..	..
United Arab Emirates	2016	129,596	129,287	..	..	..	309	..
	2017	134,553	133,761	..	..	..	792	..
	2018	135,997	134,694	..	..	..	1,303	..
	2019	138,454	134,674	..	..	..	3,780	..
Uzbekistan	2016	58,634	51,773	6,860	..	..	0	..
	2017	60,323	52,393	7,930	..	..	1	..
	2018	62,408	56,510	5,897	..	..	0	..
	2019	63,021	56,544	6,462	..	16	0	..
Viet Nam	2016	181,653	116,244	65,188	..	221	..	..
	2017	198,499	109,354	88,875	..	270	..	..
	2018	213,199	128,576	84,205	..	312	106	..
	2019	*227,715	*142,200	85,097	..	312	106	..
Yemen	2016	4,798	4,643	..	..	..	155	..
	2017	4,050	3,856	..	..	..	194	..
	2018	3,487	3,003	..	..	..	484	..
	2019	3,603	3,119	..	..	..	484	..
<b>Europe</b>	<b>2016</b>	<b>4,863,751</b>	<b>2,485,730</b>	<b>799,287</b>	<b>1,138,394</b>	<b>307,368</b>	<b>113,678</b>	<b>19,295</b>
	<b>2017</b>	<b>4,884,828</b>	<b>2,493,334</b>	<b>744,388</b>	<b>1,138,815</b>	<b>366,272</b>	<b>122,368</b>	<b>19,650</b>
	<b>2018</b>	<b>4,905,167</b>	<b>2,423,831</b>	<b>805,632</b>	<b>1,141,487</b>	<b>383,321</b>	<b>131,915</b>	<b>18,982</b>
	<b>2019</b>	<b>4,849,473</b>	<b>2,340,802</b>	<b>763,381</b>	<b>1,139,926</b>	<b>441,163</b>	<b>145,133</b>	<b>19,068</b>
Albania	2016	7,136	..	7,136	..	..	..	..
	2017	4,526	..	4,526	..	..	..	..
	2018	8,552	..	8,552	..	..	..	..
	2019	5,206	..	5,184	..	..	22	..
Andorra	2016	99	14	84	..	..	0	..
	2017	103	17	85	..	..	1	..
	2018	135	20	114	..	..	1	..
	2019	107	21	85	..	..	2	..
Austria	2016	68,307	18,952	43,009	..	5,235	1,096	15
	2017	71,324	21,296	42,175	..	6,572	1,269	13
	2018	68,618	19,900	41,219	..	6,030	1,455	13
	2019	74,234	21,208	43,833	..	7,477	1,702	13
Belarus	2016	33,566	33,321	142	..	75	28	..
	2017	34,515	33,924	405	..	97	89	..
	2018	38,986	38,386	324	..	99	177	..
	2019	40,465	39,756	350	..	178	181	..
Belgium	2016	85,813	31,744	1,489	43,523	5,438	3,095	524
	2017	86,776	32,779	1,397	42,227	6,514	3,308	551
	2018	75,098	33,318	1,329	28,597	7,465	3,903	487
	2019	93,746	34,633	1,181	43,524	9,726	4,247	436
Bosnia and Herzegovina	2016	17,767	12,102	5,641	..	..	24	..
	2017	16,439	12,431	3,987	..	..	21	..
	2018	19,160	12,517	6,519	..	103	21	..
	2019	17,493	11,037	6,172	..	254	30	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	415	413	2	..	1
..	..	..	..	430	427	2	..	1
..	..	..	..	453	450	2	..	1
..	..	..	..	518	515	2	..	*1
20,662	18,635	845	1,182	253,746	166,450	66,386	..	20,910
20,284	17,682	967	1,636	276,993	193,609	57,252	..	26,133
19,918	16,334	1,073	2,510	284,884	192,399	58,865	..	33,620
22,934	18,598	1,282	3,053	280,964	155,443	87,540	..	37,980
..	..	..	..	22,534	22,534	..	..	..
..	..	..	..	22,534	22,531	3	..	..
..	..	..	..	22,534	22,531	3	..	..
..	..	..	..	22,534	22,531	3	..	..
..	..	..	..	129,596	129,287	..	..	309
..	..	..	..	134,553	133,761	..	..	792
..	..	..	..	135,997	134,694	..	..	1,303
..	..	..	..	138,454	134,674	..	..	3,780
..	..	..	..	58,634	51,773	6,860	..	0
..	..	..	..	60,323	52,393	7,930	..	1
..	..	..	..	62,408	56,510	5,897	..	0
..	..	..	..	63,021	56,544	6,462	..	16
4,914	4,832	*80	*2	176,739	111,412	65,108	..	219
4,282	4,200	*80	*2	194,217	105,154	88,795	..	268
*4,282	*4,200	*80	*2	208,917	124,376	84,125	..	416
*4,282	*4,200	*80	*2	*223,433	*138,000	85,017	..	416
411	256	..	155	4,387	4,387	..	..	..
437	243	..	194	3,613	3,613	..	..	..
729	245	..	484	2,758	2,758	..	..	..
765	281	..	484	2,838	2,838	..	..	..
<b>376,489</b>	<b>334,943</b>	<b>10,420</b>	<b>31,126</b>	<b>4,487,261</b>	<b>2,150,786</b>	<b>788,867</b>	<b>1,138,394</b>	<b>409,214</b>
<b>388,535</b>	<b>343,330</b>	<b>9,886</b>	<b>35,319</b>	<b>4,496,292</b>	<b>2,150,004</b>	<b>734,502</b>	<b>1,138,815</b>	<b>472,971</b>
<b>406,143</b>	<b>356,636</b>	<b>10,294</b>	<b>39,213</b>	<b>4,499,024</b>	<b>2,067,194</b>	<b>795,338</b>	<b>1,141,487</b>	<b>495,005</b>
<b>418,200</b>	<b>364,434</b>	<b>10,396</b>	<b>43,370</b>	<b>4,431,273</b>	<b>1,976,368</b>	<b>752,985</b>	<b>1,139,926</b>	<b>561,994</b>
..	..	..	..	7,136	..	7,136	..	..
..	..	..	..	4,526	..	4,526	..	..
..	..	..	..	8,552	..	8,552	..	..
..	..	..	..	5,206	..	5,184	..	22
..	..	..	..	99	14	84	..	0
..	..	..	..	103	17	85	..	1
..	..	..	..	135	20	114	..	1
..	..	..	..	107	21	85	..	2
7,876	7,334	527	15	60,431	11,618	42,482	..	6,331
8,211	7,720	478	13	63,114	13,576	41,697	..	7,841
7,987	7,500	474	13	60,631	12,400	40,745	..	7,486
7,966	7,419	535	13	66,268	13,790	43,299	..	9,180
3,430	3,409	14	7	30,136	29,912	128	..	96
3,735	3,717	9	9	30,780	30,207	396	..	177
3,960	3,876	8	76	35,026	34,510	316	..	200
4,263	4,160	7	96	36,202	35,596	343	..	263
10,432	6,812	..	3,620	75,381	24,932	1,489	43,523	5,437
11,447	7,586	..	3,861	75,329	25,193	1,397	42,227	6,512
12,128	7,711	..	4,417	62,971	25,607	1,329	28,597	7,438
13,859	9,121	..	4,738	79,887	25,512	1,181	43,524	9,671
394	394	..	..	17,373	11,708	5,641	..	24
441	441	..	..	15,998	11,990	3,987	..	21
438	438	..	..	18,722	12,079	6,519	..	124
412	412	..	..	17,081	10,625	6,172	..	284

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Bulgaria	2016	45,277	22,088	4,568	15,776	1,425	1,386	34
	2017	45,613	23,633	3,493	15,545	1,504	1,403	34
	2018	46,838	22,606	5,423	16,125	1,318	1,343	22
	2019	44,302	21,573	3,383	16,555	1,317	1,442	31
Croatia	2016	12,820	4,682	7,058	..	1,014	66	..
	2017	11,984	5,193	5,508	..	1,204	79	..
	2018	13,632	4,435	7,785	..	1,335	75	2
	2019	12,760	5,185	5,933	..	1,467	83	92
Czechia	2016	83,309	53,279	3,202	24,104	497	2,131	96
	2017	87,050	52,783	3,040	28,340	591	2,193	103
	2018	88,032	52,338	2,679	29,921	609	2,359	125
	2019	87,031	50,474	3,175	30,246	700	2,312	124
Denmark	2016	30,541	16,996	19	..	12,782	744	..
	2017	31,023	15,473	18	..	14,780	751	..
	2018	30,368	15,499	15	..	13,902	953	..
	2019	29,526	12,395	17	..	16,150	963	..
Estonia	2016	12,171	11,532	35	..	594	10	..
	2017	13,160	12,397	26	..	723	14	..
	2018	12,364	11,682	15	..	636	31	..
	2019	7,616	6,836	19	..	687	74	..
Faeroe Islands	2016	317	159	106	..	52	..	..
	2017	334	163	111	..	60	..	..
	2018	352	180	108	..	64	..	..
	2019	386	230	104	..	53	..	..
Finland	2016	68,757	26,399	15,799	23,203	3,068	22	266
	2017	67,524	25,031	14,772	22,477	4,795	49	401
	2018	70,263	27,959	13,301	22,793	5,839	90	281
	2019	68,642	25,923	12,413	23,870	6,025	147	264
France	2016	564,051	63,968	65,686	403,195	21,381	8,659	1,162
	2017	561,942	72,878	55,135	398,359	24,609	9,586	1,374
	2018	581,785	57,647	70,472	412,942	28,599	10,891	1,235
	2019	570,845	62,148	61,573	399,012	34,722	12,225	1,166
Germany	2016	650,450	419,596	26,135	84,634	79,924	38,098	2,063
	2017	653,723	404,286	26,155	76,324	105,693	39,401	1,864
	2018	642,900	385,552	23,863	76,005	109,951	45,784	1,745
	2019	609,065	334,353	25,671	75,071	125,894	46,392	1,684
Gibraltar	2016	214	214	..	..	..	..	0
	2017	180	180	..	..	..	..	0
	2018	215	215	..	..	..	..	0
	2019	220	220	..	..	..	..	0
Greece	2016	54,439	39,798	5,565	..	5,146	3,930	..
	2017	55,266	41,698	4,040	..	5,537	3,991	..
	2018	53,263	37,412	5,760	..	6,300	3,791	..
	2019	48,626	32,880	4,051	..	7,266	4,429	..
Guernsey	2016	87	87	..	..	..	..	..
	2017	77	77	..	..	..	..	..
	2018	54	54	..	..	..	..	..
	2019	165	164	..	..	..	*1	..
Hungary	2016	31,902	14,583	259	16,054	684	244	78
	2017	32,885	15,377	220	16,098	758	349	83
	2018	32,039	14,697	222	15,733	607	629	151
	2019	34,154	15,292	219	16,288	729	1,497	129
Iceland	2016	18,550	3	13,470	..	9	..	5,068
	2017	19,239	2	14,059	..	8	..	5,170
	2018	19,830	2	13,814	..	4	..	6,010
	2019	19,489	3	13,461	..	7	..	6,018

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
491	457	..	34	44,786	21,631	4,568	15,776	2,811
688	654	..	34	44,925	22,980	3,493	15,545	2,907
708	686	..	22	46,130	21,921	5,423	16,125	2,661
721	690	..	31	43,580	20,883	3,383	16,555	2,759
338	331	7	..	12,482	4,351	7,051	..	1,080
420	414	6	..	11,564	4,779	5,502	..	1,283
373	367	6	..	13,259	4,068	7,779	..	1,412
375	370	6	..	12,385	4,816	5,927	..	1,642
9,445	8,776	598	71	73,864	44,503	2,604	24,104	2,653
9,112	8,423	611	78	77,939	44,360	2,429	28,340	2,810
8,785	8,191	494	99	79,247	44,147	2,185	29,921	2,994
8,737	8,065	575	98	78,293	42,409	2,600	30,246	3,038
2,779	2,035	..	744	27,762	14,961	19	..	12,782
2,831	2,079	..	751	28,192	13,394	18	..	14,780
3,099	2,146	..	953	27,270	13,353	15	..	13,902
3,206	2,242	..	963	26,320	10,153	17	..	16,150
258	245	..	13	11,913	11,287	35	..	591
164	164	..	..	12,997	12,233	26	..	737
124	123	..	1	12,241	11,560	15	..	666
94	91	1	2	7,521	6,745	18	..	759
..	..	..	..	317	159	106	..	52
..	..	..	..	334	163	111	..	60
..	..	..	..	352	180	108	..	64
..	..	..	..	386	230	104	..	53
9,518	8,277	1,035	206	59,239	18,122	14,764	23,203	3,150
9,833	8,571	1,003	259	57,691	16,460	13,769	22,477	4,985
10,711	9,474	944	292	59,552	18,484	12,357	22,793	5,918
10,812	9,713	752	347	57,830	16,210	11,661	23,870	6,089
16,194	12,757	595	2,842	547,857	51,211	65,091	403,195	28,360
16,865	13,020	527	3,318	545,077	59,858	54,608	398,359	32,252
20,821	16,443	609	3,769	560,965	41,204	69,863	412,942	36,956
22,362	17,558	595	4,209	548,483	44,590	60,978	399,012	43,904
54,863	53,397	176	1,290	595,587	366,199	25,959	84,634	118,795
56,777	55,489	172	1,116	596,946	348,797	25,983	76,324	145,842
54,957	53,785	87	1,085	587,943	331,767	23,776	76,005	156,395
53,336	52,318	98	920	555,729	282,035	25,573	75,071	173,050
..	..	..	..	214	214	..	..	0
..	..	..	..	180	180	..	..	0
..	..	..	..	215	215	..	..	0
..	..	..	..	220	220	..	..	0
1,947	1,947	..	..	52,492	37,851	5,565	..	9,076
1,933	1,933	..	..	53,333	39,765	4,040	..	9,528
2,215	2,215	..	..	51,048	35,197	5,760	..	10,091
2,480	2,480	..	..	46,146	30,400	4,051	..	11,695
..	..	..	..	87	87	..	..	..
..	..	..	..	77	77	..	..	..
..	..	..	..	54	54	..	..	..
..	..	..	..	165	164	..	..	*1
1,009	720	..	289	30,893	13,863	259	16,054	717
1,269	875	..	394	31,616	14,502	220	16,098	796
1,550	955	..	595	30,489	13,742	222	15,733	792
1,975	1,053	..	922	32,179	14,239	219	16,288	1,433
..	..	..	..	18,550	3	13,470	..	5,077
..	..	..	..	19,239	2	14,059	..	5,178
..	..	..	..	19,830	2	13,814	..	6,014
..	..	..	..	19,489	3	13,461	..	6,025

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Ireland	2016	30,514	23,388	973	..	6,147	6	..
	2017	30,875	22,525	895	..	7,444	11	..
	2018	31,134	21,546	932	..	8,640	17	..
	2019	30,941	19,768	1,132	..	10,019	21	..
Isle of Man	2016	433	430	3	..	..	..	..
	2017	467	463	4	..	..	..	..
	2018	493	490	*2	..	..	..	..
	2019	581	578	3	..	..	..	..
Italy	2016	289,768	198,693	44,257	..	17,689	22,104	7,025
	2017	295,830	208,824	38,025	..	17,742	24,378	6,862
	2018	289,708	192,129	50,503	..	17,716	22,654	6,707
	2019	293,853	195,084	48,154	..	20,202	23,689	6,725
Jersey	2016	70	70	..	..	..	..	..
	2017	49	49	..	..	..	..	..
	2018	45	45	..	..	..	..	..
	2019	44	44	..	..	..	..	..
Kosovo	2016	5,981	5,736	245	..	..	..	..
	2017	5,919	5,739	179	..	0	1	..
	2018	5,917	5,612	273	..	30	2	..
	2019	6,351	6,037	213	..	91	11	..
Latvia	2016	6,425	3,767	2,530	..	128	..	..
	2017	7,531	3,000	4,381	..	150	0	..
	2018	6,725	4,170	2,432	..	122	1	..
	2019	6,438	4,174	2,108	..	154	3	..
Liechtenstein	2016	90	2	68	..	..	20	..
	2017	93	2	69	..	..	22	..
	2018	89	2	62	..	..	25	..
	2019	103	2	75	..	..	26	..
Lithuania	2016	4,266	1,750	1,044	..	1,136	66	270
	2017	4,187	1,324	1,181	..	1,364	68	250
	2018	3,511	1,089	960	..	1,144	87	232
	2019	3,972	1,210	948	..	1,499	91	223
Luxembourg	2016	2,196	467	1,528	..	101	100	..
	2017	2,235	470	1,422	..	235	108	..
	2018	2,201	490	1,337	..	255	120	..
	2019	1,908	547	949	..	281	130	..
Malta	2016	857	729	..	..	..	128	..
	2017	1,652	1,489	..	..	0	162	..
	2018	1,961	1,772	..	..	0	189	..
	2019	2,076	1,864	..	..	0	212	..
Montenegro	2016	3,141	1,298	1,843	..	..	..	..
	2017	2,483	1,348	1,040	..	95	..	..
	2018	3,679	1,444	2,092	..	141	2	..
	2019	3,423	1,506	1,621	..	293	2	..
Netherlands	2016	115,168	99,952	100	3,960	8,170	1,602	1,384
	2017	117,219	99,368	61	3,402	10,569	2,208	1,612
	2018	114,103	95,659	72	3,515	10,549	3,709	599
	2019	121,062	99,620	74	3,910	11,508	5,335	614
North Macedonia	2016	5,630	3,599	1,897	..	109	24	..
	2017	5,600	4,356	1,110	..	110	24	..
	2018	5,607	3,696	1,791	..	97	23	..
	2019	5,870	4,581	1,164	..	102	23	..
Norway	2016	149,042	3,201	143,417	..	2,116	..	308
	2017	149,480	3,190	143,112	..	2,854	..	324
	2018	146,891	3,169	139,509	..	3,876	2	334
	2019	135,292	3,010	126,404	..	5,536	13	328

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,237	2,199	..	38	28,277	21,189	973	..	6,115
2,239	2,191	..	47	28,637	20,334	895	..	7,408
2,209	2,153	..	56	28,925	19,393	932	..	8,600
2,157	2,084	..	73	28,784	17,684	1,132	..	9,967
25	25	..	..	408	405	3	..	..
24	24	..	..	443	439	4	..	..
*33	*33	..	..	460	457	*2	..	..
*33	*33	..	..	548	545	3	..	..
18,467	17,687	562	218	271,301	181,006	43,695	..	46,600
19,782	19,150	489	143	276,048	189,674	37,536	..	48,839
22,784	22,114	466	204	266,925	170,015	50,037	..	46,873
22,340	21,695	492	153	271,513	173,389	47,661	..	50,463
45	45	..	..	24	24	..	..	..
44	44	..	..	4	4	..	..	..
43	43	..	..	2	2	..	..	..
42	42	..	..	2	2	..	..	..
..	..	..	..	5,981	5,736	245	..	..
..	..	..	..	5,919	5,739	179	..	1
..	..	..	..	5,917	5,612	273	..	32
0	..	..	0	6,351	6,037	213	..	101
211	207	2	2	6,214	3,560	2,528	..	126
194	188	4	3	7,337	2,812	4,377	..	148
190	186	2	2	6,535	3,984	2,430	..	121
187	180	2	5	6,251	3,994	2,106	..	152
..	..	..	..	90	2	68	..	20
..	..	..	..	93	2	69	..	22
..	..	..	..	89	2	62	..	25
..	..	..	..	103	2	75	..	26
888	618	..	270	3,378	1,132	1,044	..	1,202
826	576	..	250	3,361	748	1,181	..	1,432
647	416	..	232	2,864	674	960	..	1,231
821	598	..	223	3,151	612	948	..	1,591
285	177	8	100	1,911	290	1,520	..	101
278	165	4	108	1,957	304	1,418	..	235
283	159	4	120	1,918	331	1,332	..	255
285	150	5	130	1,623	397	944	..	281
136	8	..	128	721	721	..	..	..
172	10	..	162	1,480	1,480	..	..	..
198	9	..	189	1,763	1,763	..	..	..
218	6	..	212	1,858	1,858	..	..	..
..	..	..	..	3,141	1,298	1,843	..	..
..	..	..	..	2,483	1,348	1,040	..	95
..	..	..	..	3,679	1,444	2,092	..	143
..	..	..	..	3,423	1,506	1,621	..	296
23,069	20,356	..	2,713	92,099	79,596	100	3,960	8,443
25,242	21,900	..	3,342	91,977	77,467	61	3,402	11,046
26,693	22,084	..	4,609	87,410	73,575	72	3,515	10,248
28,721	22,599	..	6,122	92,340	77,021	74	3,910	11,335
0	0	..	..	5,630	3,599	1,897	..	133
0	0	..	..	5,600	4,356	1,110	..	134
..	..	..	..	5,607	3,696	1,791	..	120
..	..	..	..	5,870	4,581	1,164	..	125
2,906	2,598	..	308	146,136	603	143,417	..	2,116
2,845	2,521	..	324	146,635	669	143,112	..	2,854
2,922	2,586	..	337	143,968	584	139,509	..	3,876
2,720	2,379	..	341	132,571	631	126,404	..	5,536



Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Poland	2016	166,635	151,234	2,622	..	12,588	124	67
	2017	170,465	152,295	3,034	..	14,909	165	62
	2018	170,039	154,428	2,387	..	12,799	300	125
	2019	163,989	145,269	2,665	..	15,107	711	237
Portugal	2016	60,328	29,903	16,909	..	12,474	870	172
	2017	59,432	38,344	7,632	..	12,248	992	217
	2018	59,636	32,155	13,628	..	12,617	1,006	230
	2019	53,154	27,687	10,243	..	13,667	1,342	215
Republic of Moldova	2016	906	862	39	..	3	2	..
	2017	896	839	48	..	7	2	..
	2018	952	884	44	..	23	1	..
	2019	939	830	65	..	43	1	..
Romania	2016	65,103	26,871	18,536	11,286	6,590	1,820	..
	2017	64,296	28,672	14,853	11,509	7,407	1,856	..
	2018	64,876	27,308	18,097	11,377	6,322	1,771	..
	2019	59,623	23,787	16,006	11,280	6,773	1,778	..
Russian Federation	2016	1,090,973	706,663	186,640	196,614	148	462	446
	2017	1,094,289	702,882	187,131	203,143	140	558	435
	2018	1,115,093	716,119	193,027	204,569	232	720	426
	2019	1,121,492	713,955	196,510	208,984	331	1,279	433
Serbia	2016	39,342	27,784	11,520	..	26	12	..
	2017	37,046	27,232	9,752	..	48	13	..
	2018	37,426	25,870	11,393	..	150	13	..
	2019	37,600	26,490	10,198	..	898	14	..
Slovakia	2016	27,064	7,015	4,606	14,774	6	533	130
	2017	27,738	7,367	4,623	15,081	6	506	155
	2018	26,971	7,542	3,879	14,843	6	585	116
	2019	28,434	7,953	4,571	15,282	6	589	33
Slovenia	2016	16,500	5,730	4,782	5,715	6	267	..
	2017	16,326	5,610	4,141	6,285	6	284	..
	2018	16,327	5,397	4,893	5,776	6	255	..
	2019	16,100	5,287	4,683	5,821	6	303	..
Spain	2016	274,772	113,618	39,865	58,633	48,905	13,643	108
	2017	275,726	133,002	21,070	58,039	49,127	14,397	91
	2018	274,452	118,149	36,803	55,766	50,896	12,744	94
	2019	273,257	117,125	26,874	58,349	55,647	15,103	159
Sweden	2016	156,010	15,150	62,137	63,101	15,479	143	..
	2017	164,250	15,547	65,168	65,696	17,609	230	..
	2018	163,400	15,571	62,250	68,549	16,623	407	..
	2019	168,439	16,390	65,393	66,130	19,847	679	..
Switzerland	2016	63,175	3,898	36,689	21,146	109	1,333	..
	2017	63,089	3,864	37,033	20,376	133	1,683	..
	2018	69,109	3,727	37,802	25,513	122	1,945	..
	2019	73,471	3,768	40,962	26,418	146	2,178	..
Ukraine	2016	164,573	72,795	9,304	80,950	954	491	79
	2017	156,037	58,173	10,520	85,576	984	739	45
	2018	159,833	61,104	12,007	84,398	1,188	1,099	37
	2019	154,141	58,201	7,855	83,003	2,020	2,933	129
United Kingdom	2016	339,216	211,607	8,329	71,726	37,159	10,395	0
	2017	337,934	197,741	8,754	70,336	49,641	11,457	4
	2018	332,504	189,847	7,942	65,064	56,906	12,736	9
	2019	322,844	181,702	7,691	56,184	64,335	12,918	14
Oceania	2016	312,980	240,319	43,193	..	14,584	6,414	8,471
	2017	314,958	239,847	43,542	..	14,736	8,330	8,503
	2018	318,320	238,100	44,240	..	17,285	10,244	8,451
	2019	321,905	234,537	43,532	..	20,035	15,267	8,534

**Table 32****Production of electricity - by type**

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
10,457	10,263	3	191	156,178	140,971	2,619	..	12,588
11,912	11,681	4	227	158,554	140,614	3,030	..	14,909
14,847	14,418	3	425	155,193	140,010	2,384	..	12,799
17,214	16,263	3	948	146,774	129,006	2,662	..	15,107
8,205	7,799	20	386	52,123	22,104	16,889	..	13,130
8,436	7,952	11	473	50,996	30,392	7,621	..	12,983
8,324	7,814	19	491	51,312	24,341	13,610	..	13,362
8,678	7,998	18	662	44,477	19,689	10,225	..	14,563
42	42	..	..	864	820	39	..	5
55	53	..	2	841	786	48	..	7
70	57	..	13	882	827	44	..	11
77	53	..	24	862	777	65	..	20
7,125	6,310	323	492	57,978	20,561	18,213	11,286	7,918
7,013	6,297	244	472	57,283	22,374	14,609	11,509	8,791
7,394	6,799	238	357	57,482	20,509	17,859	11,377	7,736
6,405	5,715	270	421	53,218	18,072	15,736	11,280	8,130
74,782	73,452	1,330	..	1,016,191	633,211	185,310	196,614	1,056
72,381	71,153	1,227	..	1,021,908	631,728	185,904	203,143	1,133
75,447	74,293	1,154	..	1,039,647	641,826	191,873	204,569	1,378
76,525	75,348	1,177	..	1,044,968	638,607	195,334	208,984	2,043
453	453	..	..	38,889	27,331	11,520	..	38
526	526	..	..	36,520	26,706	9,752	..	62
543	543	..	..	36,883	25,327	11,393	..	163
470	470	..	..	37,130	26,020	10,198	..	912
3,084	2,473	98	513	23,980	4,542	4,508	14,774	156
3,092	2,505	100	487	24,646	4,862	4,523	15,081	180
3,515	2,892	111	512	23,456	4,650	3,768	14,843	195
3,089	2,556	120	413	25,345	5,397	4,451	15,282	215
754	267	227	260	15,746	5,463	4,555	5,715	13
731	266	189	276	15,595	5,344	3,952	6,285	14
724	255	221	248	15,603	5,142	4,672	5,776	13
769	261	213	295	15,331	5,026	4,470	5,821	14
34,042	33,088	803	151	240,730	80,530	39,062	58,633	62,505
36,135	35,415	477	243	239,591	97,587	20,593	58,039	63,372
37,587	36,389	909	289	236,865	81,760	35,894	55,766	63,445
38,316	37,059	897	360	234,941	80,066	25,977	58,349	70,549
5,738	5,727	11	..	150,272	9,423	62,126	63,101	15,622
6,215	6,203	12	..	158,035	9,344	65,156	65,696	17,839
6,139	6,128	11	..	157,261	9,443	62,239	68,549	17,030
6,964	6,959	5	..	161,475	9,431	65,388	66,130	20,526
7,189	3,217	2,639	1,333	55,986	681	34,050	21,146	109
7,497	3,202	2,612	1,683	55,592	662	34,421	20,376	133
7,963	3,131	2,888	1,945	61,145	596	34,915	25,513	122
8,213	3,152	2,883	2,178	65,258	616	38,079	26,418	146
5,767	5,659	23	85	158,806	67,136	9,281	80,950	1,439
3,976	3,899	4	73	152,061	54,274	10,516	85,576	1,695
2,658	2,611	2	45	157,175	58,493	12,005	84,398	2,279
2,262	2,124	..	138	151,880	56,077	7,855	83,003	4,944
51,608	35,382	1,419	14,807	287,608	176,225	6,910	71,726	32,747
55,194	36,320	1,703	17,170	282,740	161,420	7,051	70,336	43,932
57,077	37,618	1,644	17,815	275,427	152,229	6,299	65,064	51,836
61,095	41,017	1,745	18,333	261,749	140,685	5,946	56,184	58,934
<b>29,035</b>	<b>22,325</b>	<b>359</b>	<b>6,351</b>	<b>283,946</b>	<b>217,994</b>	<b>42,834</b>	..	<b>23,118</b>
<b>33,739</b>	<b>25,332</b>	<b>355</b>	<b>8,052</b>	<b>281,219</b>	<b>214,514</b>	<b>43,187</b>	..	<b>23,517</b>
<b>36,691</b>	<b>26,840</b>	<b>213</b>	<b>9,637</b>	<b>281,629</b>	<b>211,259</b>	<b>44,027</b>	..	<b>26,343</b>
<b>41,971</b>	<b>28,700</b>	<b>282</b>	<b>12,990</b>	<b>279,934</b>	<b>205,837</b>	<b>43,250</b>	..	<b>30,846</b>

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
American Samoa	2016	170	167	..	..	..	3	..
	2017	167	162	..	..	..	5	..
	2018	*168	*163	..	..	..	5	..
	2019	*169	*164	..	..	..	*5	..
Australia	2016	256,563	222,837	15,318	..	12,199	6,209	0
	2017	258,019	221,065	16,285	..	12,597	8,071	1
	2018	260,998	219,884	16,021	..	15,164	9,929	0
	2019	264,025	215,498	15,967	..	17,712	14,848	..
Cook Islands	2016	34	30	..	..	..	5	..
	2017	37	31	..	..	..	6	..
	2018	41	31	..	..	..	11	..
	2019	39	29	..	..	..	10	..
Fiji	2016	941	435	495	..	4	7	..
	2017	1,017	514	491	..	2	9	..
	2018	1,045	464	567	..	3	12	..
	2019	1,074	498	559	..	3	13	..
French Polynesia	2016	691	475	183	..	0	33	..
	2017	681	470	175	..	0	36	..
	2018	676	475	164	..	0	37	..
	2019	693	494	159	..	0	40	..
Guam	2016	1,720	1,668	..	..	*1	52	..
	2017	1,760	1,708	..	..	*1	52	..
	2018	1,715	1,663	..	..	*1	52	..
	2019	1,724	1,672	..	..	*1	52	..
Kiribati	2016	*31	*26	..	..	..	5	..
	2017	*31	*26	..	..	..	5	..
	2018	*32	*27	..	..	..	5	..
	2019	*32	*27	..	..	..	5	..
Marshall Islands	2016	*88	*86	..	..	..	2	..
	2017	*89	*87	..	..	..	2	..
	2018	*90	*88	..	..	..	2	..
	2019	*90	*88	..	..	..	2	..
Micronesia (Fed. States of)	2016	*68	*66	0	..	..	2	..
	2017	*67	*65	0	..	..	2	..
	2018	*69	*65	0	..	*1	3	..
	2019	*69	*65	0	..	*1	3	..
Nauru	2016	32	31	..	..	..	0	..
	2017	35	34	..	..	..	1	..
	2018	36	35	..	..	..	1	..
	2019	37	36	..	..	..	1	..
New Caledonia	2016	3,130	2,842	232	..	45	11	..
	2017	3,228	2,794	361	..	45	28	..
	2018	3,486	3,077	317	..	45	47	..
	2019	3,333	2,876	285	..	57	116	..
New Zealand	2016	43,824	7,466	25,920	..	2,330	57	8,051
	2017	44,323	8,901	25,177	..	2,086	77	8,082
	2018	44,412	7,926	26,290	..	2,067	100	8,029
	2019	44,811	8,765	25,575	..	2,254	128	8,090
Niue	2016	*3	*3	..	..	..	0	..
	2017	*3	*3	..	..	..	0	..
	2018	*4	*3	..	..	..	0	..
	2019	*4	*4	..	..	..	0	..
Northern Mariana Islands	2016	*387	*387	..	..	..	..	..
	2017	*380	*380	..	..	..	..	..
	2018	*390	*390	..	..	..	..	..
	2019	*392	*392	..	..	..	..	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	170	167	..	..	3
..	..	..	..	167	162	..	..	5
..	..	..	..	*168	*163	..	..	5
..	..	..	..	*169	*164	..	..	*5
24,084	18,336	..	5,748	232,479	204,501	15,318	..	12,660
28,941	21,507	..	7,434	229,078	199,558	16,285	..	13,235
31,974	22,969	..	9,005	229,024	196,915	16,021	..	16,088
36,981	24,671	..	12,310	227,044	190,827	15,967	..	20,250
..	..	..	..	34	30	..	..	5
..	..	..	..	37	31	..	..	6
..	..	..	..	41	31	..	..	11
..	..	..	..	39	29	..	..	10
11	11	..	..	931	425	495	..	11
23	23	..	..	994	491	491	..	11
40	40	..	..	1,005	424	567	..	15
49	49	..	..	1,025	450	559	..	16
..	..	..	..	691	475	183	..	33
..	..	..	..	681	470	175	..	36
..	..	..	..	676	475	164	..	37
..	..	..	..	693	494	159	..	40
..	..	..	..	1,720	1,668	..	..	52
..	..	..	..	1,760	1,708	..	..	52
..	..	..	..	1,715	1,663	..	..	52
..	..	..	..	1,724	1,672	..	..	52
*2	*2	..	..	*29	*24	..	..	5
*2	*2	..	..	*29	*24	..	..	5
*2	*2	..	..	*29	*24	..	..	5
*2	*2	..	..	*30	*25	..	..	5
..	..	..	..	*88	*86	..	..	2
..	..	..	..	*89	*87	..	..	2
..	..	..	..	*90	*88	..	..	2
..	..	..	..	*90	*88	..	..	2
..	..	..	..	*68	*66	0	..	2
..	..	..	..	*67	*65	0	..	2
..	..	..	..	*69	*65	0	..	4
..	..	..	..	*69	*65	0	..	4
..	..	..	..	32	31	..	..	0
..	..	..	..	35	34	..	..	1
..	..	..	..	36	35	..	..	1
..	..	..	..	37	36	..	..	1
..	..	..	..	3,130	2,842	232	..	57
..	..	..	..	3,228	2,794	361	..	73
..	..	..	..	3,486	3,077	317	..	92
..	..	..	..	3,333	2,876	285	..	173
1,408	1,221	4	183	42,416	6,245	25,916	..	10,255
1,457	1,255	4	198	42,866	7,645	25,173	..	10,048
1,412	1,197	4	210	43,001	6,728	26,286	..	9,986
1,557	1,318	4	236	43,254	7,448	25,571	..	10,236
..	..	..	..	*3	*3	..	..	0
..	..	..	..	*3	*3	..	..	0
..	..	..	..	*4	*3	..	..	0
..	..	..	..	*4	*4	..	..	0
..	..	..	..	*387	*387	..	..	..
..	..	..	..	*380	*380	..	..	..
..	..	..	..	*390	*390	..	..	..
..	..	..	..	*392	*392	..	..	..

Table 32

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Palau	2016	*95	*95	..	..	..	0	..
	2017	*95	*95	..	..	..	0	..
	2018	*97	*95	..	..	..	2	..
	2019	*97	*95	..	..	..	2	..
Papua New Guinea	2016	4,794	3,367	1,005	..	..	2	420
	2017	4,595	3,155	1,018	..	..	2	420
	2018	4,629	3,375	830	..	..	2	422
	2019	*4,858	*3,483	*928	..	..	*2	*444
Samoa	2016	149	101	33	..	0	16	..
	2017	154	108	26	..	0	20	..
	2018	154	90	43	..	0	21	..
	2019	169	96	50	..	0	24	..
Solomon Islands	2016	100	97	1	..	..	2	..
	2017	103	99	1	..	..	3	..
	2018	104	100	1	..	..	3	..
	2019	107	102	1	..	..	4	..
Tonga	2016	60	55	..	..	0	5	..
	2017	67	61	..	..	0	5	..
	2018	66	62	..	..	0	4	..
	2019	71	64	..	..	0	6	..
Tuvalu	2016	7	5	..	..	..	2	..
	2017	8	6	..	..	..	2	..
	2018	9	7	..	..	..	2	..
	2019	*9	*7	..	..	..	2	..
Vanuatu	2016	74	62	5	..	5	2	..
	2017	80	63	7	..	5	4	..
	2018	80	63	8	..	4	5	..
	2019	82	63	8	..	6	*5	..
Wallis and Futuna Is.	2016	*20	*20	0	..	..	0	..
	2017	*20	*19	0	..	..	0	..
	2018	*20	*20	0	..	..	0	..
	2019	*22	*21	0	..	..	0	..

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*6	*6	..	..	*89	*89	..	..	0
*7	*7	..	..	*88	*88	..	..	0
*7	*7	..	..	*90	*88	..	..	2
*7	*7	..	..	*90	*88	..	..	2
3,520	2,745	355	420	1,274	622	650	..	2
3,304	2,533	351	420	1,291	622	667	..	2
3,253	2,622	209	422	1,376	753	621	..	2
*3,372	*2,650	*278	*444	*1,485	*833	*650	..	*2
0	..	..	0	149	101	33	..	16
0	..	..	0	154	108	26	..	20
0	..	..	0	154	90	43	..	21
0	..	..	0	169	96	50	..	24
4	4	..	..	96	93	1	..	2
4	4	..	..	99	95	1	..	3
3	3	..	..	101	97	1	..	3
3	3	..	..	104	99	1	..	4
..	..	..	..	60	55	..	..	5
..	..	..	..	67	61	..	..	5
..	..	..	..	66	62	..	..	4
..	..	..	..	71	64	..	..	6
..	..	..	..	7	5	..	..	2
..	..	..	..	8	6	..	..	2
..	..	..	..	9	7	..	..	2
..	..	..	..	*9	*7	..	..	2
..	..	..	..	74	62	5	..	8
..	..	..	..	80	63	7	..	9
..	..	..	..	80	63	8	..	10
..	..	..	..	82	63	8	..	12
..	..	..	..	*20	*20	0	..	0
..	..	..	..	*20	*19	0	..	0
..	..	..	..	*20	*20	0	..	0
..	..	..	..	*22	*21	0	..	0



### Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

**Table Notes**

**Supply** is calculated as **Production** plus **Imports** minus **Exports**.

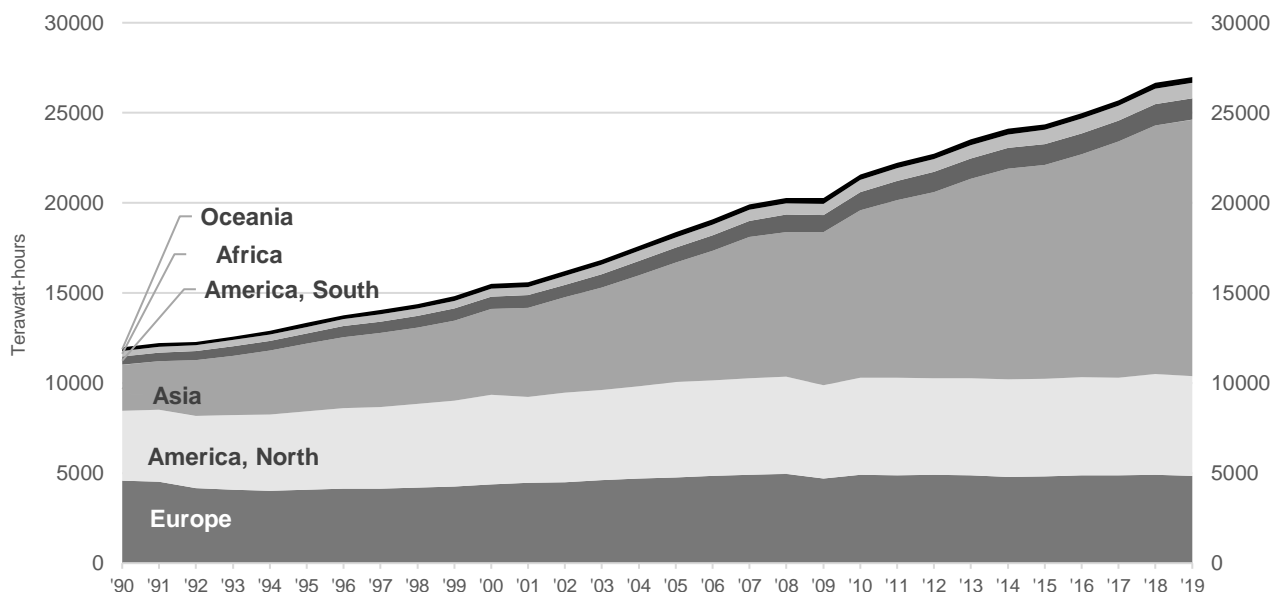
**EIOU and losses** refers to energy industries own use of electricity, including for pumped storage, and losses.

**Total Final Consumption (TFC)** refers to final energy consumption of electricity.

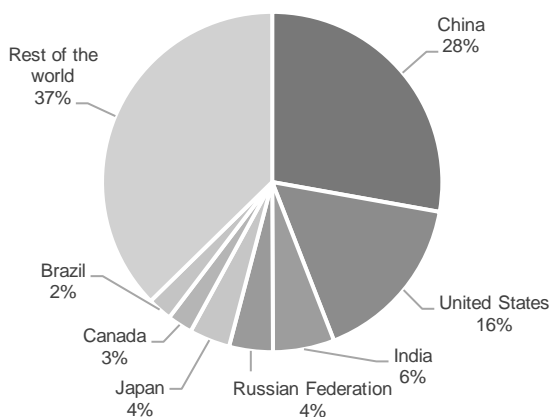
Figures may not add up due to statistical differences, or for some countries quantities transformed into heat in heat pumps and/or electric boilers

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 81: World electricity generation by region, 1990-2019**



**Figure 82: Major electricity producing countries, 2019**



**Figure 83: Major electricity consuming countries, 2019**

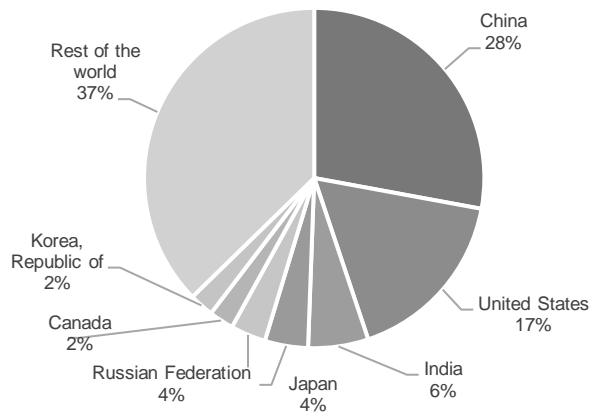




Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
<b>World</b>	2016	24,986,890	738,377	722,865	25,002,402	3,350	4,151,159	20,757,633
	2017	25,699,698	740,533	735,528	25,704,704	3,406	4,289,908	21,379,757
	2018	26,654,467	736,726	722,657	26,668,536	3,495	4,400,284	22,216,350
	2019	26,982,699	728,846	721,778	26,989,767	3,499	4,436,938	22,579,574
<b>Africa</b>	2016	809,152	41,884	37,952	813,085	671	158,807	647,820
	2017	827,879	39,513	31,725	835,668	672	182,121	650,084
	2018	852,350	37,672	31,388	858,634	674	172,781	686,997
	2019	857,322	34,677	34,964	857,035	656	182,889	668,694
Algeria	2016	71,092	257	507	70,842	1,747	18,554	52,288
	2017	76,018	537	880	75,675	1,828	19,299	56,376
	2018	76,662	506	597	76,571	1,813	18,417	58,153
	2019	81,533	531	673	81,391	1,890	19,208	62,184
Angola	2016	10,379	..	..	10,379	360	1,441	8,938
	2017	10,737	..	..	10,737	360	1,490	9,247
	2018	12,869	..	..	12,869	418	1,793	11,076
	2019	15,474	..	..	15,474	486	2,141	13,333
Benin	2016	276	1,089	..	1,365	126	288	1,071
	2017	331	1,111	..	1,442	129	297	1,139
	2018	202	1,293	..	1,495	130	295	1,183
	2019	529	1,093	2	1,620	137	363	1,256
Botswana	2016	2,688	1,650	..	4,338	2,008	871	3,479
	2017	3,022	1,288	..	4,310	1,955	1,016	3,280
	2018	3,105	1,189	..	4,294	1,905	785	3,209
	2019	2,508	1,746	..	4,254	1,847	935	3,208
Burkina Faso	2016	973	630	..	1,603	86	*242	*1,361
	2017	1,095	645	..	1,741	91	*289	*1,452
	2018	1,021	837	..	1,858	94	*274	*1,568
	2019	752	1,087	..	1,840	91	*202	*1,686
Burundi	2016	181	*128	..	309	29	*61	*216
	2017	192	*94	..	286	26	*67	*225
	2018	246	*100	..	346	31	*70	*276
	2019	271	*100	..	371	32	*75	*296
Cabo Verde	2016	444	..	..	444	836	*128	*315
	2017	492	..	..	492	915	*142	*343
	2018	*497	..	..	*497	*914	*141	*356
	2019	*513	..	..	*513	*933	*143	*370
Cameroon	2016	7,531	17	..	7,548	315	1,913	5,761
	2017	8,082	18	..	8,100	330	2,026	6,182
	2018	8,581	19	..	8,600	341	2,056	6,564
	2019	8,476	19	..	8,495	328	2,111	6,484
Central African Rep.	2016	143	..	..	143	32	*10	*133
	2017	145	..	..	145	32	*10	*135
	2018	147	..	..	147	32	*10	*137
	2019	149	..	..	149	31	*10	*139
Chad	2016	294	..	..	294	20	*52	*240
	2017	299	..	..	299	20	*53	*242
	2018	303	..	..	303	20	*55	*245
	2019	308	..	..	308	19	*57	*249
Comoros	2016	*58	..	..	*58	*73	*23	*35
	2017	*91	..	..	*91	*112	*36	*55
	2018	*98	..	..	*98	*118	*39	*59
	2019	*108	..	..	*108	*127	*43	*65

### Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Congo	2016	2,953	21	22	2,952	593	1,694	1,439
	2017	2,965	22	22	2,964	580	1,657	1,555
	2018	3,096	28	26	3,098	591	1,732	1,586
	2019	3,655	23	44	3,634	675	2,034	1,596
Côte d'Ivoire	2016	10,253	19	1,877	8,395	352	2,140	6,615
	2017	10,121	37	1,247	8,911	365	2,617	6,318
	2018	10,058	102	1,156	9,004	359	2,067	6,926
	2019	10,697	77	1,255	9,518	370	2,339	7,297
Dem. Rep. of the Congo	2016	9,135	20	420	8,735	111	1,876	7,001
	2017	9,510	668	62	10,116	124	2,147	7,223
	2018	12,067	799	70	12,796	152	2,831	9,965
	2019	11,107	385	248	11,244	130	3,212	8,283
Djibouti	2016	88	450	..	537	578	*107	*423
	2017	*59	508	..	567	600	*113	*461
	2018	*58	526	..	584	609	*115	*469
	2019	*60	*530	..	*590	*606	*120	*470
Egypt	2016	191,920	54	747	191,227	2,025	27,105	162,275
	2017	195,150	65	333	194,882	2,021	*43,276	151,606
	2018	202,838	81	425	202,494	2,057	34,212	165,610
	2019	194,279	74	360	193,993	1,932	40,009	156,340
Equatorial Guinea	2016	*850	..	..	*850	*699	*131	*719
	2017	*850	..	..	*850	*674	*131	*719
	2018	*736	..	..	*736	*562	*110	*626
	2019	*750	..	..	*750	*553	*115	*635
Eritrea	2016	423	..	..	423	125	73	343
	2017	444	..	..	444	130	77	360
	2018	467	..	..	467	135	81	379
	2019	483	..	..	483	138	83	392
Eswatini	2016	408	1,077	..	1,485	1,333	222	1,262
	2017	414	1,048	..	1,462	1,300	169	1,387
	2018	519	1,020	..	1,539	1,355	195	1,323
	2019	584	947	..	1,531	1,333	182	1,343
Ethiopia	2016	12,588	..	1,303	11,285	109	2,675	8,586
	2017	13,268	..	1,432	11,836	111	2,993	8,856
	2018	14,242	..	1,000	13,242	121	3,245	10,558
	2019	15,149	..	1,000	14,149	126	3,447	10,995
Gabon	2016	2,338	344	..	2,682	1,336	665	2,017
	2017	2,278	456	..	2,734	1,324	579	2,155
	2018	2,280	511	..	2,791	1,317	597	2,194
	2019	2,284	511	..	2,795	1,286	537	2,258
Gambia	2016	302	..	..	302	141	*69	*233
	2017	317	..	..	317	143	*80	*237
	2018	*321	..	..	*321	*141	*82	*239
	2019	*325	..	..	*325	*138	*83	*242
Ghana	2016	13,203	745	187	13,761	483	1,056	12,528
	2017	14,248	320	268	14,300	491	986	13,037
	2018	16,425	140	740	15,825	532	1,371	14,401
	2019	18,368	127	1,430	17,065	561	1,364	15,232
Guinea	2016	1,596	..	..	1,596	136	*271	*1,324
	2017	1,753	..	..	1,753	145	*298	*1,455
	2018	1,914	..	..	1,914	154	*325	*1,588
	2019	2,019	..	..	2,019	158	*343	*1,676

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Guinea-Bissau	2016	*79	..	..	*79	*44	0	*79
	2017	*80	..	..	*80	*44	0	79
	2018	*81	..	..	*81	*43	0	*82
	2019	*82	..	..	*82	*43	0	*86
Kenya	2016	10,058	86	39	10,105	206	2,045	8,053
	2017	10,360	230	12	10,577	211	2,022	8,410
	2018	11,182	130	35	11,277	219	2,531	8,702
	2019	11,621	212	16	11,816	225	2,837	8,854
Lesotho	2016	508	373	3	878	423	154	*765
	2017	502	387	1	888	424	117	700
	2018	517	397	3	911	432	116	807
	2019	393	542	1	934	439	130	791
Liberia	2016	*440	..	..	*440	*96	*64	*376
	2017	*440	..	..	*440	*94	*64	*376
	2018	*444	..	..	*444	*92	*64	*380
	2019	*456	..	..	*456	*92	*66	*390
Libya	2016	31,420	376	..	31,796	4,898	7,331	13,988
	2017	33,282	302	..	33,584	5,103	7,682	14,133
	2018	34,172	465	..	34,637	5,186	7,736	17,605
	2019	33,719	465	..	34,184	5,044	7,603	17,864
Madagascar	2016	1,886	..	..	1,886	76	162	1,757
	2017	1,994	..	..	1,994	78	176	1,825
	2018	2,095	..	..	2,095	80	*155	1,940
	2019	2,162	..	..	2,162	80	*163	1,999
Malawi	2016	2,233	..	24	2,208	128	*354	1,855
	2017	2,142	..	20	2,121	120	*643	1,329
	2018	*1,997	..	19	*1,978	*109	*544	1,384
	2019	*2,321	..	20	*2,301	*124	*568	1,633
Mali	2016	2,613	113	*529	2,197	122	*322	*1,875
	2017	3,068	*117	*535	2,650	143	*330	*2,320
	2018	*3,261	*198	*550	*2,909	*152	*369	*2,540
	2019	*3,298	*200	*556	*2,942	*150	*373	*2,569
Mauritania	2016	1,042	221	57	1,206	290	*255	941
	2017	1,183	*185	..	1,368	319	*305	982
	2018	1,271	198	..	1,469	333	*325	1,023
	2019	1,347	204	..	1,551	343	*290	1,099
Mauritius	2016	3,042	..	..	3,042	2,411	477	2,555
	2017	3,120	..	..	3,120	2,467	497	2,614
	2018	3,132	..	..	3,132	2,471	476	2,650
	2019	3,237	..	..	3,237	2,549	474	2,754
Morocco	2016	32,141	5,289	135	37,295	1,046	6,233	31,063
	2017	33,192	6,058	161	39,088	1,082	6,636	32,453
	2018	35,822	3,724	350	39,196	1,071	6,582	32,614
	2019	41,650	526	1,453	40,723	1,099	7,272	33,451
Mozambique	2016	18,697	9,928	14,269	14,355	516	2,538	11,383
	2017	17,641	8,289	10,010	15,920	556	2,953	12,243
	2018	17,140	8,327	9,738	15,729	533	2,991	12,344
	2019	18,981	8,276	10,771	16,487	543	3,131	12,836
Namibia	2016	1,479	3,085	99	4,465	1,893	505	3,909
	2017	1,694	2,939	100	4,533	1,887	449	4,057
	2018	1,307	3,449	114	4,642	1,896	445	4,171
	2019	1,052	3,417	119	4,350	1,744	270	4,040

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Niger	2016	442	779	0	1,221	59	*276	*968
	2017	566	845	0	1,412	65	*290	*1,014
	2018	480	1,253	0	1,733	77	*276	*1,379
	2019	*555	1,057	..	1,612	69	363	1,239
Nigeria	2016	36,512	..	..	36,512	196	6,730	25,429
	2017	32,221	..	..	32,221	169	5,993	25,992
	2018	32,446	..	..	32,446	166	6,026	26,653
	2019	31,422	..	..	31,422	156	5,856	27,274
Rwanda	2016	633	79	4	708	61	147	*561
	2017	700	82	4	777	65	181	597
	2018	759	96	5	850	69	168	682
	2019	798	99	6	892	71	170	*722
Sao Tome and Principe	2016	86	..	..	86	424	18	*69
	2017	*91	..	..	*91	*438	*19	*72
	2018	*91	..	..	*91	*433	*18	*73
	2019	*91	..	..	*91	*425	*17	*74
Senegal	2016	4,097	360	..	4,457	297	724	3,734
	2017	4,418	360	..	4,778	310	726	3,472
	2018	4,502	360	..	4,862	307	727	3,998
	2019	*4,453	324	..	*4,777	*293	816	3,960
Seychelles	2016	496	..	..	496	5,183	*44	452
	2017	513	..	..	513	5,320	*43	470
	2018	518	..	..	518	5,334	*42	476
	2019	540	..	..	540	5,525	*54	486
Sierra Leone	2016	*303	..	..	*303	*41	*93	*210
	2017	313	..	..	313	42	*100	*210
	2018	315	..	..	315	41	*82	*232
	2019	260	..	..	260	33	*87	*173
Somalia	2016	362	..	..	362	26	*43	*319
	2017	367	..	..	367	25	*47	*320
	2018	367	..	..	367	24	*17	350
	2019	367	..	..	367	24	*16	*351
South Africa	2016	255,112	9,113	16,140	248,085	4,414	55,058	203,739
	2017	257,769	7,321	14,423	250,667	4,397	59,437	202,672
	2018	256,064	8,320	14,458	249,926	4,325	57,897	205,423
	2019	252,639	7,823	14,482	245,980	4,201	58,953	187,137
South Sudan	2016	521	..	..	521	48	40	477
	2017	542	..	..	542	50	39	498
	2018	584	..	..	584	53	42	501
	2019	593	..	..	593	54	43	536
St. Helena and Depend.	2016	12	..	..	12	1,946	*2	9
	2017	11	..	..	11	1,885	*2	9
	2018	12	..	..	12	1,976	*1	11
	2019	12	..	..	12	1,965	*2	10
Sudan	2016	14,558	439	6	14,991	376	3,212	11,799
	2017	15,679	891	..	16,570	406	3,401	12,961
	2018	16,395	808	..	17,203	412	3,503	13,700
	2019	17,024	*818	..	17,842	417	*3,737	*14,104
Togo	2016	950	448	..	1,398	186	215	1,185
	2017	692	747	..	1,438	187	136	1,313
	2018	589	882	..	1,471	186	211	1,239
	2019	723	963	118	1,568	194	239	1,328

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Tunisia	2016	19,808	134	255	19,687	1,742	3,976	15,569
	2017	20,589	450	483	20,556	1,798	4,364	16,113
	2018	21,012	382	484	20,910	1,808	4,416	16,504
	2019	22,083	472	631	21,924	1,875	4,478	17,397
Uganda	2016	3,508	54	165	3,398	86	765	2,594
	2017	3,854	65	317	3,602	88	755	2,802
	2018	4,040	84	233	3,891	91	789	3,067
	2019	4,364	104	299	4,169	94	826	3,233
United Rep. of Tanzania	2016	7,216	102	..	7,318	138	1,363	5,370
	2017	7,250	106	..	7,356	135	1,313	5,933
	2018	7,396	118	..	7,514	133	1,193	6,372
	2019	7,865	113	..	7,978	138	1,311	6,677
Zambia	2016	11,695	2,185	794	13,086	800	2,228	10,858
	2017	14,185	753	1,063	13,875	823	1,683	12,192
	2018	16,191	152	1,226	15,117	871	2,220	12,898
	2019	15,041	198	976	14,263	799	*1,922	12,341
Zimbabwe	2016	7,090	2,220	369	8,941	637	1,767	7,276
	2017	7,544	2,569	351	9,762	686	1,872	7,880
	2018	9,418	1,177	161	10,435	723	1,923	8,506
	2019	7,792	1,612	504	8,900	608	1,662	7,255
<b>America, North</b>	<b>2016</b>	<b>5,445,040</b>	<b>87,663</b>	<b>83,786</b>	<b>5,448,918</b>	<b>9,515</b>	<b>748,578</b>	<b>4,694,004</b>
	<b>2017</b>	<b>5,406,703</b>	<b>81,867</b>	<b>86,247</b>	<b>5,402,323</b>	<b>9,355</b>	<b>763,338</b>	<b>4,653,751</b>
	<b>2018</b>	<b>5,606,105</b>	<b>79,172</b>	<b>81,344</b>	<b>5,603,933</b>	<b>9,627</b>	<b>775,300</b>	<b>4,815,140</b>
	<b>2019</b>	<b>5,524,519</b>	<b>80,772</b>	<b>86,995</b>	<b>5,518,296</b>	<b>9,406</b>	<b>773,701</b>	<b>4,759,076</b>
Anguilla	2016	105	..	..	105	7,274	14	*91
	2017	82	..	..	82	5,594	*13	*68
	2018	89	..	..	89	6,018	*15	74
	2019	100	..	..	100	6,751	*17	*83
Antigua and Barbuda	2016	*353	..	..	*353	*3,735	*100	*253
	2017	*353	..	..	*353	*3,699	*98	*255
	2018	362	..	..	362	3,760	*82	*287
	2019	*362	..	..	*362	*3,728	*74	*288
Aruba	2016	*947	..	..	*947	*9,029	*158	*789
	2017	*978	..	..	*978	*9,286	*165	*813
	2018	*983	..	..	*983	*9,285	*166	*817
	2019	*987	..	..	*987	*9,287	*158	*829
Bahamas	2016	1,966	..	..	1,966	5,202	*86	1,965
	2017	*1,987	..	..	*1,987	*5,205	*96	*1,841
	2018	*2,280	..	..	*2,280	*5,912	*89	*2,209
	2019	*2,337	..	..	*2,337	*6,000	*107	*2,230
Barbados	2016	1,064	..	..	1,064	3,722	86	978
	2017	1,047	..	..	1,047	3,658	75	974
	2018	1,055	..	..	1,055	3,682	38	943
	2019	1,070	..	..	1,070	3,729	103	944
Belize	2016	389	243	..	632	1,716	82	589
	2017	406	230	..	636	1,692	74	572
	2018	415	235	..	651	1,698	79	586
	2019	304	384	..	688	1,763	78	620
Bermuda	2016	666	..	..	666	10,518	*80	586
	2017	676	..	..	676	10,727	90	585
	2018	644	..	..	644	10,267	77	568
	2019	613	..	..	613	9,808	*57	554

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Bonaire, St Eustatius, Saba	2016	132	..	..	132	5,276	*31	*101
	2017	137	..	..	137	5,382	*33	*104
	2018	*137	..	..	*137	*5,309	*32	*105
	2019	*145	..	..	*145	*5,577	*35	*110
British Virgin Islands	2016	*212	..	..	*212	*7,232	*29	*183
	2017	*167	..	..	*167	*5,652	*26	*141
	2018	*171	..	..	*171	*5,736	*24	*147
	2019	*183	..	..	*183	*6,094	*26	*157
Canada	2016	663,808	9,303	73,103	600,008	16,491	89,945	494,129
	2017	662,972	9,904	72,040	600,836	16,357	92,625	513,726
	2018	653,780	13,195	61,401	605,574	16,334	91,094	524,370
	2019	645,429	13,334	60,410	598,353	15,994	89,872	529,665
Cayman Islands	2016	666	..	..	666	10,645	40	627
	2017	671	..	..	671	10,579	29	642
	2018	658	..	..	658	10,249	9	649
	2019	696	..	..	696	10,711	6	689
Costa Rica	2016	10,932	807	657	11,083	2,262	1,395	9,688
	2017	11,359	551	741	11,169	2,256	1,415	9,804
	2018	11,528	572	813	11,288	2,258	1,435	9,892
	2019	11,508	733	712	11,529	2,284	1,447	10,062
Cuba	2016	20,459	..	..	20,459	1,805	4,175	16,283
	2017	20,558	..	..	20,558	1,813	5,068	15,490
	2018	20,837	..	..	20,837	1,838	5,248	15,589
	2019	20,703	..	..	20,703	1,827	5,372	15,331
Curaçao	2016	884	..	..	884	5,489	169	715
	2017	891	..	..	891	5,503	156	736
	2018	866	..	..	866	5,320	150	716
	2019	879	..	..	879	5,380	167	712
Dominica	2016	157	..	..	157	2,200	14	*144
	2017	131	..	..	131	1,829	10	*122
	2018	110	..	..	110	1,540	10	*101
	2019	138	..	..	138	1,926	*13	*126
Dominican Republic	2016	18,690	..	..	18,690	1,798	3,099	15,591
	2017	19,036	..	..	19,036	1,811	3,138	15,887
	2018	19,651	..	..	19,651	1,849	3,242	16,409
	2019	19,857	..	..	19,857	1,849	3,276	18,196
El Salvador	2016	6,083	1,066	77	7,071	1,113	*932	6,073
	2017	5,615	1,675	90	7,200	1,127	*1,006	6,153
	2018	5,402	1,824	65	7,161	1,115	*883	6,221
	2019	6,071	1,450	158	7,363	1,141	*959	6,343
Greenland	2016	490	..	..	490	8,691	27	320
	2017	518	..	..	518	9,174	29	328
	2018	*530	..	..	*530	*9,370	*25	*347
	2019	*520	..	..	*520	*9,178	*30	*330
Grenada	2016	221	..	..	221	2,001	32	194
	2017	230	..	..	230	2,071	34	200
	2018	234	..	..	234	2,102	26	208
	2019	243	..	..	243	2,167	20	217
Guatemala	2016	11,789	747	1,335	11,201	675	1,251	9,907
	2017	12,272	891	1,858	11,306	668	1,259	10,115
	2018	13,568	825	2,500	11,893	690	1,678	10,220
	2019	*14,083	1,141	2,190	*13,034	*741	2,373	10,660

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Haiti	2016	1,086	..	..	1,086	100	634	417
	2017	1,058	..	..	1,058	96	642	422
	2018	1,048	..	..	1,048	94	651	428
	2019	1,064	..	..	1,064	94	661	435
Honduras	2016	9,219	314	16	9,516	1,026	3,139	6,377
	2017	9,385	446	25	9,807	1,040	2,872	6,935
	2018	9,629	372	8	9,993	1,042	3,005	6,988
	2019	10,439	260	6	10,693	1,097	3,305	7,388
Jamaica	2016	4,342	..	..	4,342	1,494	1,173	3,184
	2017	4,360	..	..	4,360	1,493	1,170	3,191
	2018	4,402	..	..	4,402	1,500	1,163	3,299
	2019	4,434	..	..	4,434	1,504	1,209	3,237
Mexico	2016	320,565	2,232	1,968	320,829	2,601	61,534	270,367
	2017	322,063	2,151	1,804	322,410	2,584	60,983	271,921
	2018	357,593	3,673	2,426	358,840	2,844	61,566	273,593
	2019	344,176	3,907	3,084	344,999	2,704	57,595	280,076
Montserrat	2016	14	..	..	14	2,720	1	11
	2017	13	..	..	13	2,678	1	11
	2018	14	..	..	14	2,822	1	11
	2019	14	..	..	14	2,827	1	12
Nicaragua	2016	4,591	205	18	4,778	758	1,157	3,665
	2017	4,525	327	1	4,851	760	1,403	3,451
	2018	4,636	201	0	4,837	748	1,381	3,594
	2019	4,574	434	0	5,009	765	1,567	3,713
Panama	2016	10,885	30	398	10,518	2,605	1,719	8,761
	2017	11,054	7	318	10,743	2,616	1,689	9,095
	2018	11,353	13	326	11,040	2,643	1,916	9,296
	2019	11,663	77	427	11,313	2,664	1,506	9,786
Puerto Rico	2016	20,644	..	..	20,644	6,288	*2,002	17,311
	2017	16,371	..	..	16,371	5,175	*1,656	13,559
	2018	17,453	..	..	17,453	5,742	1,187	16,375
	2019	18,886	..	..	18,886	6,438	*1,803	16,077
Sint Maarten (Dutch part)	2016	*362	..	..	*362	*8,870	*12	342
	2017	*300	..	..	*300	*7,239	*10	*282
	2018	*291	..	..	*291	*6,949	*9	*270
	2019	*296	..	..	*296	*6,976	*9	*274
St. Kitts-Nevis	2016	*228	..	..	*228	*4,408	*38	*189
	2017	232	..	..	232	4,452	*50	*182
	2018	*232	..	..	*232	*4,418	*45	*187
	2019	*235	..	..	*235	*4,438	*45	*189
St. Lucia	2016	391	..	..	391	2,174	43	348
	2017	400	..	..	400	2,212	41	360
	2018	404	..	..	404	2,222	43	362
	2019	413	..	..	413	2,259	44	369
St. Pierre-Miquelon	2016	48	..	..	48	8,170	4	45
	2017	49	..	..	49	8,272	3	46
	2018	51	..	..	51	8,703	3	47
	2019	52	..	..	52	8,955	3	49
St. Vincent-Grenadines	2016	153	..	..	153	1,401	15	138
	2017	151	..	..	151	1,372	14	137
	2018	151	..	..	151	1,368	16	135
	2019	*163	..	..	*163	*1,471	*15	*148

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Trinidad and Tobago	2016	9,419	..	..	9,419	6,837	596	8,823
	2017	9,323	..	..	9,323	6,736	614	8,709
	2018	9,225	..	..	9,225	6,637	762	8,463
	2019	9,188	..	..	9,188	6,587	759	8,429
Turks and Caicos Islands	2016	*245	..	..	*245	*6,702	*20	230
	2017	*293	..	..	*293	*7,894	*13	284
	2018	*258	..	..	*258	*6,849	*22	237
	2019	*261	..	..	*261	*6,826	*20	*241
United States	2016	4,322,038	72,716	6,214	4,388,540	13,586	574,599	3,813,941
	2017	4,286,429	65,685	9,371	4,342,743	13,359	586,627	3,756,115
	2018	4,455,439	58,261	13,804	4,499,895	13,757	599,019	3,900,876
	2019	4,391,761	59,052	20,008	4,430,805	13,465	600,853	3,829,952
United States Virgin Is.	2016	*797	..	..	*797	*7,607	*149	*649
	2017	*611	..	..	*611	*5,829	*111	*499
	2018	*626	..	..	*626	*5,985	*113	*521
	2019	*672	..	..	*672	*6,426	*117	*555
<b>America, South</b>	<b>2016</b>	<b>1,167,384</b>	<b>52,897</b>	<b>51,633</b>	<b>1,168,647</b>	<b>2,810</b>	<b>233,087</b>	<b>933,781</b>
	<b>2017</b>	<b>1,160,969</b>	<b>47,156</b>	<b>46,646</b>	<b>1,161,479</b>	<b>2,768</b>	<b>227,974</b>	<b>931,550</b>
	<b>2018</b>	<b>1,185,415</b>	<b>45,273</b>	<b>44,976</b>	<b>1,185,712</b>	<b>2,801</b>	<b>233,360</b>	<b>944,265</b>
	<b>2019</b>	<b>1,191,139</b>	<b>37,933</b>	<b>37,921</b>	<b>1,191,151</b>	<b>2,790</b>	<b>233,627</b>	<b>946,785</b>
Argentina	2016	146,353	11,078	327	157,104	3,611	28,324	128,781
	2017	145,618	10,529	69	156,078	3,552	27,078	129,001
	2018	152,224	10,030	280	161,974	3,651	27,990	128,744
	2019	145,990	10,946	261	156,675	3,499	24,995	125,619
Bolivia (Plur. State of)	2016	9,307	..	..	9,307	844	1,102	8,201
	2017	9,617	..	..	9,617	859	1,223	8,374
	2018	9,855	..	..	9,855	868	1,472	8,450
	2019	10,172	..	..	10,172	884	1,624	8,217
Brazil	2016	578,897	41,313	518	619,692	3,006	128,089	491,605
	2017	589,326	36,511	156	625,681	3,010	127,259	498,420
	2018	601,396	34,980	1	636,375	3,038	129,435	506,939
	2019	626,329	25,156	199	651,286	3,086	138,411	512,874
Chile	2016	79,308	0	2	79,306	4,355	6,386	70,171
	2017	79,417	0	39	79,377	4,298	7,290	69,624
	2018	82,313	0	..	82,313	4,395	6,624	73,034
	2019	84,558	..	..	84,558	4,462	6,775	74,097
Colombia	2016	74,574	378	45	74,907	1,555	14,758	59,838
	2017	75,125	78	9	75,194	1,537	13,613	61,232
	2018	78,426	122	16	78,532	1,581	16,687	61,531
	2019	80,590	1,765	6	82,349	1,636	14,815	67,171
Ecuador	2016	27,314	82	402	26,994	1,637	3,955	23,038
	2017	28,033	19	212	27,840	1,659	3,899	23,972
	2018	29,198	106	256	29,048	1,700	4,152	24,908
	2019	32,267	6	1,827	30,446	1,752	4,641	25,289
Falkland Is. (Malvinas)	2016	21	..	..	21	7,117	*3	*18
	2017	20	..	..	20	6,379	*2	*18
	2018	19	..	..	19	5,954	*2	*18
	2019	20	..	..	20	5,845	2	*18
Guyana	2016	1,081	..	..	1,081	1,402	255	826
	2017	1,105	..	..	1,105	1,425	245	859
	2018	1,136	..	..	1,136	1,459	268	868
	2019	1,135	..	..	1,135	1,449	269	869



Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Paraguay	2016	63,771	..	48,415	15,356	2,266	4,344	11,012
	2017	59,685	..	43,635	16,051	2,337	4,496	11,555
	2018	59,212	..	42,205	17,007	2,445	4,503	12,504
	2019	49,448	..	31,748	17,700	2,513	4,860	12,840
Peru	2016	52,720	22	38	52,704	1,704	7,315	45,390
	2017	52,743	17	0	52,760	1,678	6,295	46,464
	2018	54,982	21	..	55,003	1,719	6,712	48,293
	2019	57,038	60	..	57,099	1,756	6,711	49,831
Suriname	2016	2,031	..	..	2,031	3,596	255	1,940
	2017	2,122	..	..	2,122	3,720	315	1,919
	2018	2,293	..	..	2,293	3,981	510	1,935
	2019	2,337	..	..	2,337	4,020	513	1,976
Uruguay	2016	13,885	25	779	13,130	3,835	1,849	11,402
	2017	14,363	3	1,462	12,904	3,755	1,831	11,118
	2018	14,623	14	1,195	13,442	3,897	2,105	11,454
	2019	16,090	0	3,011	13,079	3,778	1,876	11,321
Venezuela (Bolivar. Rep.)	2016	118,122	0	1,107	117,014	3,920	36,452	81,558
	2017	103,796	0	1,064	102,732	3,494	34,428	68,995
	2018	99,737	..	1,023	98,714	3,417	32,900	65,586
	2019	85,166	..	870	84,296	2,956	28,134	56,662
<b>Asia</b>	<b>2016</b>	<b>12,388,583</b>	<b>104,946</b>	<b>90,263</b>	<b>12,403,266</b>	<b>2,771</b>	<b>2,046,108</b>	<b>10,296,269</b>
	<b>2017</b>	<b>13,104,361</b>	<b>109,177</b>	<b>105,898</b>	<b>13,107,641</b>	<b>2,901</b>	<b>2,160,086</b>	<b>10,917,834</b>
	<b>2018</b>	<b>13,787,110</b>	<b>113,578</b>	<b>102,097</b>	<b>13,798,591</b>	<b>3,026</b>	<b>2,246,631</b>	<b>11,532,900</b>
	<b>2019</b>	<b>14,238,341</b>	<b>111,605</b>	<b>96,922</b>	<b>14,253,024</b>	<b>3,098</b>	<b>2,289,043</b>	<b>12,003,448</b>
Afghanistan	2016	1,394	4,333	..	5,726	162	*645	*5,080
	2017	1,420	4,611	..	6,031	166	*670	*5,357
	2018	1,266	4,986	..	6,252	168	*695	*5,552
	2019	1,592	4,912	..	6,504	171	*725	*5,777
Armenia	2016	7,315	275	1,229	6,361	2,166	1,033	5,334
	2017	7,765	319	1,440	6,645	2,257	1,022	5,623
	2018	7,791	204	1,627	6,368	2,157	965	5,403
	2019	7,680	293	1,251	6,721	2,272	882	5,839
Azerbaijan	2016	24,953	114	1,096	23,972	2,462	6,311	17,618
	2017	24,321	108	1,283	23,146	2,351	6,030	17,085
	2018	25,229	131	1,445	23,915	2,404	6,081	17,812
	2019	26,073	137	1,491	24,719	2,460	6,024	18,666
Bahrain	2016	28,479	137	151	28,465	19,964	636	27,749
	2017	29,193	263	260	29,196	19,541	672	27,765
	2018	29,516	448	182	29,782	18,976	540	28,987
	2019	33,453	652	447	33,658	20,509	875	32,783
Bangladesh	2016	68,909	4,051	..	72,960	462	11,059	59,180
	2017	73,249	4,935	..	78,185	490	11,832	65,861
	2018	78,612	5,070	..	83,682	519	12,864	70,409
	2019	84,551	6,786	..	91,337	560	14,287	78,898
Bhutan	2016	7,954	84	5,763	2,275	3,088	*266	2,009
	2017	7,730	92	5,701	2,121	2,845	59	2,186
	2018	6,960	134	4,581	2,514	3,332	185	2,186
	2019	8,859	96	6,147	2,808	3,680	528	2,279
Brunei Darussalam	2016	4,270	..	..	4,270	10,172	1,043	3,227
	2017	4,157	..	..	4,157	9,793	1,043	3,112
	2018	4,294	..	..	4,294	10,010	1,043	3,250
	2019	4,933	..	..	4,933	11,384	1,028	3,906

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Cambodia	2016	5,812	1,582	..	7,394	469	1,221	6,176
	2017	6,902	1,442	..	8,344	521	1,547	6,792
	2018	8,475	1,570	..	10,045	618	1,396	8,653
	2019	8,675	3,063	..	11,738	712	1,520	10,218
China	2016	6,133,158	6,185	18,907	6,120,436	4,328	1,028,045	5,092,461
	2017	6,604,476	6,423	19,470	6,591,429	4,639	1,075,720	5,515,707
	2018	7,166,133	5,688	20,906	7,150,915	5,009	1,149,860	6,000,960
	2019	7,503,458	4,860	21,650	7,486,668	5,222	1,187,949	6,298,689
China, Hong Kong SAR	2016	38,154	11,621	1,205	48,570	6,705	4,542	44,028
	2017	36,970	12,576	1,341	48,205	6,598	4,373	43,832
	2018	36,565	12,599	556	48,608	6,594	4,303	44,305
	2019	36,911	12,381	..	49,292	6,629	4,373	44,919
China, Macao SAR	2016	988	4,306	..	5,294	8,638	258	5,048
	2017	1,465	3,952	..	5,417	8,701	249	5,169
	2018	653	4,911	..	5,564	8,809	250	5,319
	2019	830	4,976	..	5,806	9,065	257	5,550
Cyprus	2016	4,887	..	..	4,887	4,176	487	4,399
	2017	5,004	..	..	5,004	4,242	459	4,542
	2018	5,061	..	..	5,061	4,255	397	4,665
	2019	5,141	..	..	5,141	4,290	419	4,724
Georgia	2016	11,574	1,329	1,409	11,494	2,862	1,007	10,487
	2017	11,531	1,751	940	12,343	3,079	1,134	11,208
	2018	12,149	1,522	602	13,069	3,265	1,113	11,937
	2019	11,857	1,763	380	13,240	3,313	1,181	12,059
India	2016	1,432,358	5,617	6,710	1,431,265	1,081	349,710	1,066,268
	2017	1,490,257	5,611	7,203	1,488,665	1,112	365,609	1,130,328
	2018	1,521,958	4,657	8,494	1,518,121	1,122	383,141	1,158,311
	2019	1,576,740	6,351	9,491	1,573,600	1,152	381,279	1,291,493
Indonesia	2016	233,367	1	..	233,368	892	32,618	215,781
	2017	*283,647	1,120	..	*284,767	*1,076	38,955	244,637
	2018	293,203	..	..	293,203	1,095	44,503	251,796
	2019	299,603	..	..	299,603	1,107	41,503	258,092
Iran (Islamic Rep. of)	2016	289,116	4,221	6,688	286,649	3,603	44,734	240,452
	2017	307,992	3,852	8,172	303,672	3,764	45,780	251,717
	2018	307,968	2,587	6,295	304,260	3,720	43,518	259,753
	2019	322,778	2,738	6,365	319,151	3,849	47,003	261,366
Iraq	2016	80,087	11,965	..	92,052	2,514	51,038	39,433
	2017	83,947	11,787	..	95,734	2,549	56,714	38,377
	2018	82,507	21,793	..	104,300	2,714	57,548	39,594
	2019	95,816	14,180	..	109,996	2,798	60,913	44,415
Israel	2016	66,976	..	5,553	61,423	7,575	5,731	55,688
	2017	67,674	..	5,649	62,025	7,524	5,440	56,295
	2018	68,894	..	5,863	63,031	7,520	5,643	57,481
	2019	72,524	..	6,311	66,213	7,772	5,897	60,074
Japan	2016	1,070,871	..	..	1,070,871	8,382	113,960	950,703
	2017	1,080,974	..	..	1,080,974	8,478	113,747	964,732
	2018	1,068,464	..	..	1,068,464	8,400	113,388	945,697
	2019	1,044,978	..	..	1,044,978	8,237	112,406	927,657
Jordan	2016	*19,563	334	46	*19,851	*2,078	2,727	16,700
	2017	19,760	51	57	19,754	2,019	3,058	17,504
	2018	19,437	188	94	19,532	1,960	3,293	17,494
	2019	20,609	239	98	20,750	2,054	2,854	17,910

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Kazakhstan	2016	106,675	1,319	2,572	105,422	5,912	22,956	65,898
	2017	103,195	1,327	5,692	98,830	5,466	23,202	69,576
	2018	107,329	1,561	5,042	103,848	5,669	27,745	80,328
	2019	106,879	1,935	2,419	106,395	5,735	24,886	71,954
Korea, Dem.Ppl's.Rep.	2016	16,272	..	..	16,272	643	4,113	12,159
	2017	14,451	..	..	14,451	568	3,653	10,798
	2018	15,044	..	..	15,044	589	3,803	11,241
	2019	13,579	..	..	13,579	529	3,432	10,147
Korea, Republic of	2016	562,603	..	..	562,603	11,035	58,581	517,271
	2017	566,880	..	..	566,880	11,094	60,497	523,237
	2018	590,111	..	..	590,111	11,532	60,665	531,374
	2019	581,492	..	..	581,492	11,352	60,413	523,815
Kuwait	2016	70,085	171	213	70,043	17,702	29,622	40,421
	2017	72,790	553	390	72,953	17,986	30,470	42,483
	2018	74,107	202	535	73,774	17,831	31,013	42,761
	2019	75,184	*132	..	75,316	17,902	31,539	43,777
Kyrgyzstan	2016	13,262	330	199	13,393	2,205	3,105	10,160
	2017	15,514	..	1,215	14,299	2,310	3,162	11,008
	2018	15,728	..	755	14,973	2,375	3,109	11,864
	2019	15,100	269	271	15,098	2,353	2,742	12,356
Lao People's Dem. Rep.	2016	25,068	787	19,650	6,206	906	1,675	4,660
	2017	33,227	500	24,901	8,826	1,269	3,861	4,966
	2018	36,762	302	27,216	9,848	1,395	*4,432	5,417
	2019	31,133	1,345	*22,460	10,018	1,397	*3,424	6,596
Lebanon	2016	21,457	69	..	21,526	3,206	*1,963	*19,563
	2017	23,411	534	..	23,945	3,511	*2,192	*21,753
	2018	23,150	11	..	23,161	3,377	*2,128	*21,033
	2019	23,819	90	..	23,909	3,487	*2,272	21,637
Malaysia	2016	156,665	33	694	156,004	5,084	11,419	144,024
	2017	164,509	7	1,124	163,392	5,253	16,876	146,520
	2018	170,578	20	1,509	169,089	5,363	14,805	152,866
	2019	175,778	19	669	175,129	5,481	18,097	158,703
Maldives	2016	672	..	..	672	1,413	*41	*631
	2017	725	..	..	725	1,461	*41	*684
	2018	772	..	..	772	1,497	*42	*730
	2019	847	..	..	847	1,595	*44	*803
Mongolia	2016	5,667	1,446	36	7,077	2,316	1,566	5,446
	2017	6,027	1,574	26	7,576	2,433	1,627	5,949
	2018	6,535	1,666	27	8,174	2,578	1,725	6,450
	2019	6,900	1,723	24	8,599	2,666	1,752	6,847
Myanmar	2016	20,248	..	..	20,248	382	4,766	15,355
	2017	20,055	116	1,393	18,778	352	2,940	15,839
	2018	22,883	152	1,527	21,507	400	3,588	17,919
	2019	23,778	122	1,281	22,619	419	3,939	18,681
Nepal	2016	4,244	2,175	3	6,416	235	1,481	4,926
	2017	4,639	2,582	3	7,218	261	1,498	5,710
	2018	4,902	2,813	35	7,680	273	1,170	6,500
	2019	6,181	1,729	107	7,803	273	1,213	6,579
Oman	2016	34,232	..	..	34,232	7,642	3,873	30,359
	2017	36,130	..	..	36,130	7,743	3,781	32,349
	2018	37,718	..	..	37,718	7,810	4,171	33,547
	2019	38,337	..	..	38,337	7,706	4,541	33,796

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Other Asia	2016	264,130	..	..	264,130	11,183	27,603	236,549
	2017	270,281	..	..	270,281	11,417	28,685	241,586
	2018	275,577	..	..	275,577	11,615	28,384	247,435
	2019	274,191	..	..	274,191	11,533	28,564	246,190
Pakistan	2016	115,503	655	..	116,158	570	22,326	95,530
	2017	123,533	433	..	123,966	596	24,408	103,273
	2018	134,982	297	..	135,279	637	21,076	109,459
	2019	136,461	499	..	136,960	632	20,285	113,546
Philippines	2016	91,789	..	..	91,789	885	17,601	74,154
	2017	95,747	..	..	95,747	910	17,917	77,793
	2018	101,223	..	..	101,223	949	18,596	82,617
	2019	107,517	..	..	107,517	994	20,327	87,118
Qatar	2016	42,307	..	..	42,307	15,939	5,174	37,134
	2017	45,555	..	..	45,555	16,719	5,526	40,030
	2018	47,913	..	..	47,913	17,224	6,045	41,868
	2019	49,873	..	..	49,873	17,610	6,212	43,660
Saudi Arabia	2016	345,149	343	1,062	344,429	10,616	47,700	270,946
	2017	355,145	3	38	355,110	10,728	64,352	264,347
	2018	343,992	2	36	343,958	10,206	58,101	265,652
	2019	343,458	3	33	343,428	10,022	55,872	264,061
Singapore	2016	51,733	..	..	51,733	9,150	2,577	48,623
	2017	52,401	..	..	52,401	9,180	2,591	49,638
	2018	53,142	..	..	53,142	9,230	2,537	50,438
	2019	54,552	..	..	54,552	9,398	2,696	51,713
Sri Lanka	2016	14,363	..	..	14,363	683	1,631	12,715
	2017	15,004	..	..	15,004	710	1,516	13,489
	2018	15,985	..	..	15,985	753	2,019	14,119
	2019	16,726	..	..	16,726	784	1,972	14,738
State of Palestine	2016	537	5,473	..	6,010	1,297	721	5,289
	2017	546	5,577	..	6,123	1,290	735	5,388
	2018	420	5,916	..	6,336	1,303	760	5,576
	2019	811	6,249	..	7,060	1,417	847	6,213
Syrian Arab Republic	2016	18,202	..	67	18,135	1,038	4,937	13,198
	2017	18,412	..	543	17,869	1,045	4,519	13,351
	2018	18,210	..	543	17,667	1,043	4,463	13,205
	2019	17,586	..	347	17,239	1,010	5,697	12,596
Tajikistan	2016	17,232	103	1,427	15,908	1,836	2,846	12,922
	2017	18,144	110	1,421	16,833	1,896	*3,170	13,774
	2018	19,743	559	2,945	17,357	1,907	*3,172	13,890
	2019	20,676	281	3,175	17,782	1,908	2,642	14,167
Thailand	2016	188,265	19,825	1,436	206,654	2,996	15,525	184,960
	2017	181,940	24,427	1,106	205,261	2,966	14,971	185,369
	2018	182,288	26,669	1,093	207,865	2,994	15,728	188,048
	2019	190,681	25,547	2,882	213,346	3,064	16,218	193,176
Timor-Leste	2016	415	..	..	415	340	*102	313
	2017	430	..	..	430	345	*108	321
	2018	453	..	..	453	357	*117	335
	2019	518	..	..	518	400	*133	384
Turkey	2016	274,408	6,330	1,452	279,286	3,499	51,116	228,170
	2017	297,278	2,728	3,304	296,702	3,658	50,947	245,755
	2018	304,802	2,477	3,112	304,167	3,694	49,232	254,934
	2019	303,898	2,212	2,789	303,320	3,636	50,113	253,207

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Turkmenistan	2016	22,534	..	3,201	19,333	3,414	6,860	12,473
	2017	22,534	..	3,201	19,333	3,358	6,857	12,476
	2018	22,534	..	3,201	19,333	3,304	6,857	12,476
	2019	22,534	..	3,201	19,333	3,254	6,857	12,476
United Arab Emirates	2016	129,596	1,141	506	130,231	13,912	12,089	*113,929
	2017	134,553	514	617	134,450	14,172	19,205	115,245
	2018	135,997	488	517	135,968	14,118	13,162	122,836
	2019	138,454	245	257	138,442	14,169	12,737	125,717
Uzbekistan	2016	58,634	5,278	6,774	57,138	1,817	*4,192	48,503
	2017	60,323	6,945	7,585	59,684	1,867	*4,344	50,350
	2018	62,408	2,233	2,627	62,014	1,910	*4,594	53,515
	2019	63,021	3,379	2,067	64,334	1,951	4,703	54,175
Viet Nam	2016	181,653	3,313	2,215	182,751	1,952	*19,001	159,791
	2017	198,499	2,352	1,825	199,026	2,104	20,777	174,653
	2018	213,199	1,722	733	214,189	2,242	21,488	192,701
	2019	*227,715	2,401	1,311	*228,805	*2,372	21,756	207,049
Yemen	2016	4,798	..	..	4,798	177	1,876	2,377
	2017	4,050	..	..	4,050	146	1,545	2,297
	2018	3,487	..	..	3,487	122	1,179	2,203
	2019	3,603	..	..	3,603	124	1,214	2,257
<b>Europe</b>	<b>2016</b>	<b>4,863,751</b>	<b>450,988</b>	<b>459,231</b>	<b>4,855,507</b>	<b>6,505</b>	<b>913,360</b>	<b>3,923,730</b>
	<b>2017</b>	<b>4,884,828</b>	<b>462,819</b>	<b>465,012</b>	<b>4,882,635</b>	<b>6,531</b>	<b>903,258</b>	<b>3,965,142</b>
	<b>2018</b>	<b>4,905,167</b>	<b>461,031</b>	<b>462,852</b>	<b>4,903,347</b>	<b>6,550</b>	<b>918,703</b>	<b>3,972,657</b>
	<b>2019</b>	<b>4,849,473</b>	<b>463,859</b>	<b>464,976</b>	<b>4,848,356</b>	<b>6,470</b>	<b>902,236</b>	<b>3,935,612</b>
Albania	2016	7,136	1,827	1,869	7,094	2,458	2,127	5,095
	2017	4,526	2,915	0	7,441	2,580	1,483	5,956
	2018	8,552	850	1,764	7,639	2,650	1,315	6,085
	2019	5,206	3,177	770	7,612	2,642	1,310	6,179
Andorra	2016	99	485	0	584	7,553	68	491
	2017	103	470	0	573	7,438	67	490
	2018	135	439	0	574	7,458	68	492
	2019	107	456	0	563	7,301	66	490
Austria	2016	68,307	26,366	19,207	75,466	8,627	13,328	62,136
	2017	71,324	29,362	22,817	77,870	8,829	14,788	63,083
	2018	68,618	28,076	19,129	77,565	8,724	14,115	63,445
	2019	74,234	26,047	22,918	77,363	8,639	13,818	63,512
Belarus	2016	33,566	6,319	3,298	36,587	3,873	7,211	29,376
	2017	34,515	5,992	3,407	37,100	3,926	7,148	29,952
	2018	38,986	3,257	4,248	37,995	4,020	7,291	30,704
	2019	40,465	3,059	5,398	38,126	4,033	7,196	30,930
Belgium	2016	85,813	14,648	8,465	91,996	8,102	10,155	82,201
	2017	86,776	14,189	8,168	92,797	8,126	10,588	82,255
	2018	75,098	21,636	4,308	92,426	8,049	9,881	82,974
	2019	93,746	12,734	14,589	91,891	7,963	10,350	81,967
Bosnia and Herzegovina	2016	17,767	3,084	6,841	14,010	4,137	2,922	11,088
	2017	16,439	3,346	5,187	14,598	4,356	3,187	11,398
	2018	19,160	3,092	7,698	14,554	4,379	3,098	11,456
	2019	17,493	2,825	6,565	13,753	4,166	2,760	10,993
Bulgaria	2016	45,277	4,568	10,940	38,905	5,440	10,063	28,898
	2017	45,613	3,705	9,186	40,132	5,651	10,178	29,909
	2018	46,838	2,223	10,030	39,030	5,535	9,051	29,893
	2019	44,302	3,045	8,855	38,492	5,499	8,853	30,119

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Croatia	2016	12,820	12,398	6,867	18,351	4,360	3,051	15,300
	2017	11,984	12,158	5,204	18,937	4,527	2,959	15,979
	2018	13,632	12,693	7,306	19,019	4,576	2,844	16,175
	2019	12,760	11,401	5,268	18,893	4,574	2,738	16,155
Czechia	2016	83,309	13,817	24,791	72,335	6,812	14,339	55,852
	2017	87,050	15,072	28,109	74,013	6,955	14,795	57,407
	2018	88,032	11,573	25,481	74,125	6,950	14,545	58,103
	2019	87,031	11,026	24,123	73,934	6,917	14,340	58,439
Denmark	2016	30,541	14,976	9,919	35,598	6,233	4,283	30,902
	2017	31,023	15,218	10,655	35,585	6,208	4,266	31,015
	2018	30,368	15,634	10,409	35,593	6,188	4,392	30,855
	2019	29,526	15,982	10,171	35,337	6,122	3,695	31,192
Estonia	2016	12,171	3,577	5,614	10,134	7,698	2,985	7,299
	2017	13,160	2,281	5,015	10,426	7,902	3,194	7,232
	2018	12,364	3,053	4,950	10,467	7,912	2,669	7,491
	2019	7,616	4,861	2,704	9,773	7,372	1,985	7,317
Faeroe Islands	2016	317	..	..	317	6,588	*26	291
	2017	334	..	..	334	6,918	*28	306
	2018	352	..	..	352	7,258	*31	321
	2019	386	..	..	386	7,931	*36	350
Finland	2016	68,757	22,110	3,159	87,708	15,954	6,367	80,953
	2017	67,524	22,204	1,779	87,949	15,958	6,485	81,039
	2018	70,263	22,548	2,612	90,199	16,333	7,006	82,769
	2019	68,642	23,938	3,896	88,684	16,031	6,643	81,650
France	2016	564,051	19,903	61,404	522,550	7,815	76,378	442,743
	2017	561,942	21,119	61,248	521,814	7,781	77,892	439,365
	2018	581,785	13,512	76,479	518,819	7,717	78,679	437,102
	2019	570,845	15,632	73,299	513,178	7,615	77,119	431,948
Germany	2016	650,450	28,338	78,863	599,925	7,299	82,970	516,955
	2017	653,723	27,842	80,301	601,264	7,274	82,311	518,953
	2018	642,900	31,727	80,463	594,164	7,148	81,509	512,656
	2019	609,065	40,126	72,793	576,398	6,902	76,884	499,514
Gibraltar	2016	214	..	..	214	6,346	10	204
	2017	180	..	..	180	5,341	10	171
	2018	215	..	..	215	6,380	11	204
	2019	220	..	..	220	6,522	11	209
Greece	2016	54,439	9,833	1,037	63,235	5,957	9,872	53,363
	2017	55,266	8,696	2,459	61,503	5,819	7,534	53,969
	2018	53,263	8,550	2,272	59,541	5,659	9,373	49,470
	2019	48,626	11,067	1,123	58,570	5,592	8,373	50,197
Guernsey	2016	87	285	..	372	5,985	23	349
	2017	77	294	..	371	5,983	17	354
	2018	54	319	..	372	5,979	25	348
	2019	165	204	..	369	5,924	22	348
Hungary	2016	31,902	17,951	5,240	44,613	4,574	7,030	37,152
	2017	32,885	19,803	6,925	45,763	4,703	6,796	38,493
	2018	32,039	18,613	4,265	46,387	4,778	6,699	39,418
	2019	34,154	19,853	7,269	46,738	4,826	6,594	40,316
Iceland	2016	18,550	..	..	18,550	55,838	1,043	17,304
	2017	19,239	..	..	19,239	57,532	1,153	17,892
	2018	19,830	..	..	19,830	58,892	1,128	18,487
	2019	19,489	..	..	19,489	57,483	1,075	18,227

Table 33

### Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Ireland	2016	30,514	871	1,583	29,802	6,347	3,604	26,378
	2017	30,875	1,116	1,795	30,197	6,353	3,475	26,636
	2018	31,134	1,622	1,649	31,106	6,455	3,649	27,877
	2019	30,941	2,180	1,535	31,585	6,469	3,574	28,424
Isle of Man	2016	433	65	105	393	4,718	*30	362
	2017	467	41	95	413	4,936	*30	363
	2018	493	*65	131	427	5,077	60	362
	2019	581	*46	192	435	5,143	69	366
Italy	2016	289,768	43,181	6,154	326,795	5,384	40,768	286,027
	2017	295,830	42,895	5,134	333,591	5,495	41,625	291,965
	2018	289,708	47,170	3,271	333,607	5,500	40,526	293,081
	2019	293,853	43,975	5,834	331,994	5,480	40,061	291,933
Jersey	2016	70	614	..	684	6,530	47	637
	2017	49	626	..	674	6,325	53	620
	2018	45	637	..	682	6,298	48	633
	2019	44	630	..	675	6,134	40	632
Kosovo	2016	5,981	557	1,064	5,474	3,080	1,604	3,871
	2017	5,919	1,242	880	6,281	3,507	1,935	4,337
	2018	5,917	825	677	6,065	3,375	1,662	4,398
	2019	6,351	928	905	6,374	3,553	1,645	4,714
Latvia	2016	6,425	4,828	3,795	7,458	3,778	974	6,482
	2017	7,531	4,073	4,137	7,467	3,827	981	6,485
	2018	6,725	5,174	4,265	7,634	3,958	970	6,662
	2019	6,438	4,611	3,493	7,556	3,963	903	6,652
Liechtenstein	2016	90	309	..	399	10,596	0	399
	2017	93	314	..	407	10,755	0	407
	2018	89	321	..	410	10,802	0	410
	2019	103	307	..	410	10,784	0	410
Lithuania	2016	4,266	11,106	2,831	12,541	4,340	2,788	9,750
	2017	4,187	11,926	3,249	12,864	4,521	2,802	10,059
	2018	3,511	12,848	3,215	13,144	4,692	2,743	10,398
	2019	3,972	13,268	3,924	13,315	4,825	2,771	10,541
Luxembourg	2016	2,196	7,718	1,420	8,494	14,663	2,129	6,367
	2017	2,235	7,567	1,389	8,413	14,214	2,020	6,394
	2018	2,201	7,553	1,392	8,362	13,839	1,902	6,460
	2019	1,908	6,818	939	7,787	12,647	1,390	6,396
Malta	2016	857	1,527	..	2,384	5,467	267	2,117
	2017	1,652	897	36	2,513	5,739	196	2,317
	2018	1,961	631	11	2,582	5,878	196	2,386
	2019	2,076	657	20	2,712	6,159	219	2,493
Montenegro	2016	3,141	1,210	906	3,445	5,492	659	2,671
	2017	2,483	1,537	417	3,603	5,741	631	2,855
	2018	3,679	780	976	3,483	5,548	637	2,847
	2019	3,423	1,196	943	3,676	5,853	622	3,054
Netherlands	2016	115,168	24,258	19,343	120,083	7,071	15,427	105,359
	2017	117,219	22,458	18,952	120,725	7,093	14,790	106,640
	2018	114,103	26,755	18,785	122,073	7,156	14,453	108,686
	2019	121,062	20,403	19,548	121,917	7,131	14,148	109,554
North Macedonia	2016	5,630	2,191	160	7,660	3,681	1,467	6,193
	2017	5,600	2,294	311	7,583	3,642	1,481	6,102
	2018	5,607	2,297	377	7,527	3,614	1,421	6,105
	2019	5,870	2,411	583	7,698	3,695	1,457	6,241

Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Norway	2016	149,042	5,740	22,151	132,631	25,258	18,205	113,645
	2017	149,480	6,111	21,276	134,315	25,360	19,197	113,696
	2018	146,891	8,340	18,489	136,742	25,617	19,895	115,907
	2019	135,292	12,353	12,309	135,336	25,161	18,718	115,624
Poland	2016	166,635	14,017	12,018	168,634	4,439	35,795	132,839
	2017	170,465	13,271	10,984	172,752	4,552	36,964	135,788
	2018	170,039	13,816	8,121	175,734	4,634	35,265	140,469
	2019	163,989	17,868	7,245	174,611	4,609	34,200	140,412
Portugal	2016	60,328	4,616	9,701	55,243	5,350	8,852	46,395
	2017	59,432	5,506	8,190	56,748	5,516	10,107	46,641
	2018	59,636	5,668	8,325	56,979	5,556	9,020	47,959
	2019	53,154	8,099	4,700	56,553	5,530	8,674	47,880
Republic of Moldova	2016	906	3,325	..	4,231	1,041	609	3,622
	2017	896	3,412	..	4,308	1,061	604	3,704
	2018	952	3,500	..	4,452	1,099	611	3,841
	2019	939	3,501	..	4,440	1,098	627	3,813
Romania	2016	65,103	4,177	9,194	60,086	3,035	16,517	43,257
	2017	64,296	4,842	7,735	61,402	3,124	16,563	44,699
	2018	64,876	3,697	6,241	62,332	3,196	16,532	45,566
	2019	59,623	5,493	3,975	61,141	3,157	15,545	45,573
Russian Federation	2016	1,090,973	3,194	17,694	1,076,473	7,410	329,125	743,971
	2017	1,094,289	6,410	17,006	1,083,693	7,447	319,156	760,885
	2018	1,115,093	5,177	17,779	1,102,491	7,565	339,002	759,582
	2019	1,121,492	1,618	20,049	1,103,061	7,562	344,218	755,636
Serbia	2016	39,342	5,068	6,990	37,420	5,288	9,818	27,602
	2017	37,046	6,549	5,724	37,871	5,380	9,747	28,124
	2018	37,426	6,400	6,284	37,542	5,359	9,493	28,049
	2019	37,600	5,417	5,341	37,676	5,399	9,681	27,994
Slovakia	2016	27,064	13,249	10,598	29,715	5,460	4,712	24,987
	2017	27,738	15,563	12,535	30,766	5,647	4,940	25,803
	2018	26,971	12,428	8,746	30,653	5,621	4,684	25,935
	2019	28,434	13,538	11,838	30,134	5,522	4,907	25,192
Slovenia	2016	16,500	8,359	9,535	15,324	7,388	2,298	13,025
	2017	16,326	9,133	9,648	15,811	7,614	2,281	13,530
	2018	16,327	8,930	9,432	15,825	7,616	2,113	13,712
	2019	16,100	9,021	9,340	15,781	7,592	2,102	13,679
Spain	2016	274,772	21,845	14,178	282,439	6,056	49,273	232,515
	2017	275,726	23,762	14,593	284,895	6,107	45,679	239,101
	2018	274,452	24,018	12,916	285,554	6,116	46,724	238,465
	2019	273,257	18,721	11,859	280,119	5,994	44,912	234,529
Sweden	2016	156,010	14,287	26,022	144,275	14,668	15,336	127,496
	2017	164,250	11,896	30,888	145,258	14,665	16,460	127,254
	2018	163,400	12,202	29,425	146,177	14,659	17,327	127,562
	2019	168,439	9,070	35,231	142,278	14,176	16,482	124,558
Switzerland	2016	63,175	34,096	30,173	67,098	8,007	8,859	58,230
	2017	63,089	36,496	30,946	68,639	8,117	10,156	58,471
	2018	69,109	31,020	32,607	67,522	7,920	9,875	57,645
	2019	73,471	29,505	35,765	67,211	7,823	10,014	57,197
Ukraine	2016	164,573	77	3,830	160,820	3,597	37,127	117,440
	2017	156,037	50	5,226	150,861	3,391	33,495	117,366
	2018	159,833	32	6,099	153,766	3,475	35,113	118,653
	2019	154,141	2,238	6,283	150,096	3,412	33,407	116,689



Table 33

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
United Kingdom	2016	339,216	20,018	2,273	356,961	5,384	52,819	304,140
	2017	337,934	18,167	3,407	352,694	5,286	53,013	299,681
	2018	332,504	21,332	2,225	351,612	5,237	51,052	300,559
	2019	322,844	24,556	3,385	344,014	5,094	47,983	295,374
Oceania	2016	312,980	..	..	312,980	7,740	51,219	262,030
	2017	314,958	..	..	314,958	7,681	53,132	261,394
	2018	318,320	..	..	318,320	7,658	53,509	264,391
	2019	321,905	..	..	321,905	7,641	55,442	265,959
American Samoa	2016	170	..	..	170	3,043	23	147
	2017	167	..	..	167	2,998	19	*148
	2018	*168	..	..	*168	*3,030	*20	*149
	2019	*169	..	..	*169	*3,063	*24	*146
Australia	2016	256,563	..	..	256,563	10,574	44,898	211,665
	2017	258,019	..	..	258,019	10,495	46,937	211,082
	2018	260,998	..	..	260,998	10,483	47,671	213,327
	2019	264,025	..	..	264,025	10,476	49,489	214,536
Cook Islands	2016	34	..	..	34	1,952	0	34
	2017	37	..	..	37	2,097	0	37
	2018	41	..	..	41	2,363	0	41
	2019	39	..	..	39	2,206	0	39
Fiji	2016	941	..	..	941	1,079	*99	842
	2017	1,017	..	..	1,017	1,159	*115	902
	2018	1,045	..	..	1,045	1,183	*120	925
	2019	1,074	..	..	1,074	1,207	*124	950
French Polynesia	2016	691	..	..	691	2,516	51	639
	2017	681	..	..	681	2,466	43	638
	2018	676	..	..	676	2,436	43	634
	2019	693	..	..	693	2,480	41	652
Guam	2016	1,720	..	..	1,720	10,554	146	1,574
	2017	1,760	..	..	1,760	10,713	150	1,610
	2018	1,715	..	..	1,715	10,344	148	1,567
	2019	1,724	..	..	1,724	10,303	155	1,568
Kiribati	2016	*31	..	..	*31	*275	*6	*25
	2017	*31	..	..	*31	*272	*6	*25
	2018	*32	..	..	*32	*272	*6	*25
	2019	*32	..	..	*32	*270	*6	*26
Marshall Islands	2016	*88	..	..	*88	*1,516	*11	*76
	2017	*89	..	..	*89	*1,535	*12	*78
	2018	*90	..	..	*90	*1,532	*12	*78
	2019	*90	..	..	*90	*1,526	*12	*78
Micronesia (Fed. States of)	2016	*68	..	..	*68	*613	*22	*46
	2017	*67	..	..	*67	*603	*22	*46
	2018	*69	..	..	*69	*609	*23	*46
	2019	*69	..	..	*69	*606	*23	*46
Nauru	2016	32	..	..	32	3,030	11	21
	2017	35	..	..	35	3,277	9	26
	2018	36	..	..	36	3,388	8	28
	2019	37	..	..	37	3,449	5	32
New Caledonia	2016	3,130	..	..	3,130	11,415	90	3,040
	2017	3,228	..	..	3,228	11,647	68	3,160
	2018	3,486	..	..	3,486	12,450	66	3,513
	2019	3,333	..	..	3,333	11,788	61	3,369

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
New Zealand	2016	43,824	..	..	43,824	9,406	4,909	39,183
	2017	44,323	..	..	44,323	9,426	5,006	38,883
	2018	44,412	..	..	44,412	9,363	4,892	39,009
	2019	44,811	..	..	44,811	9,369	4,983	39,229
Niue	2016	*3	..	..	*3	*2,110	0	*3
	2017	*3	..	..	*3	*2,109	0	*3
	2018	*4	..	..	*4	*2,403	*1	*3
	2019	*4	..	..	*4	*2,466	0	*3
Northern Mariana Islands	2016	*387	..	..	*387	*6,884	*86	*301
	2017	*380	..	..	*380	*6,719	*85	*295
	2018	*390	..	..	*390	*6,855	*86	*304
	2019	*392	..	..	*392	*6,852	*86	*306
Palau	2016	*95	..	..	*95	*5,363	*17	*77
	2017	*95	..	..	*95	*5,347	*16	*81
	2018	*97	..	..	*97	*5,388	*16	*80
	2019	*97	..	..	*97	*5,361	*16	*81
Papua New Guinea	2016	4,794	..	..	4,794	580	802	3,991
	2017	4,595	..	..	4,595	545	*597	*3,998
	2018	4,629	..	..	4,629	538	349	*4,280
	2019	*4,858	..	..	*4,858	*553	364	*4,494
Samoa	2016	149	..	..	149	768	19	130
	2017	154	..	..	154	790	15	138
	2018	154	..	..	154	783	16	138
	2019	169	..	..	169	859	18	152
Solomon Islands	2016	100	..	..	100	161	*10	*90
	2017	103	..	..	103	162	*13	*90
	2018	104	..	..	104	159	*16	*88
	2019	107	..	..	107	160	*18	*88
Tonga	2016	60	..	..	60	594	7	*53
	2017	67	..	..	67	652	8	*59
	2018	66	..	..	66	636	8	*58
	2019	71	..	..	71	676	8	*63
Tuvalu	2016	7	..	..	7	658	1	7
	2017	8	..	..	8	695	1	7
	2018	9	..	..	9	786	*1	*8
	2019	*9	..	..	*9	*741	*1	*8
Vanuatu	2016	74	..	..	74	267	7	69
	2017	80	..	..	80	279	8	72
	2018	80	..	..	80	275	8	72
	2019	82	..	..	82	275	8	75
Wallis and Futuna Is.	2016	*20	..	..	*20	*1,661	*3	*17
	2017	*20	..	..	*20	*1,648	*3	*17
	2018	*20	..	..	*20	*1,739	*2	*19
	2019	*22	..	..	*22	*1,881	*1	*20



### Production of heat – by type

Terajoules

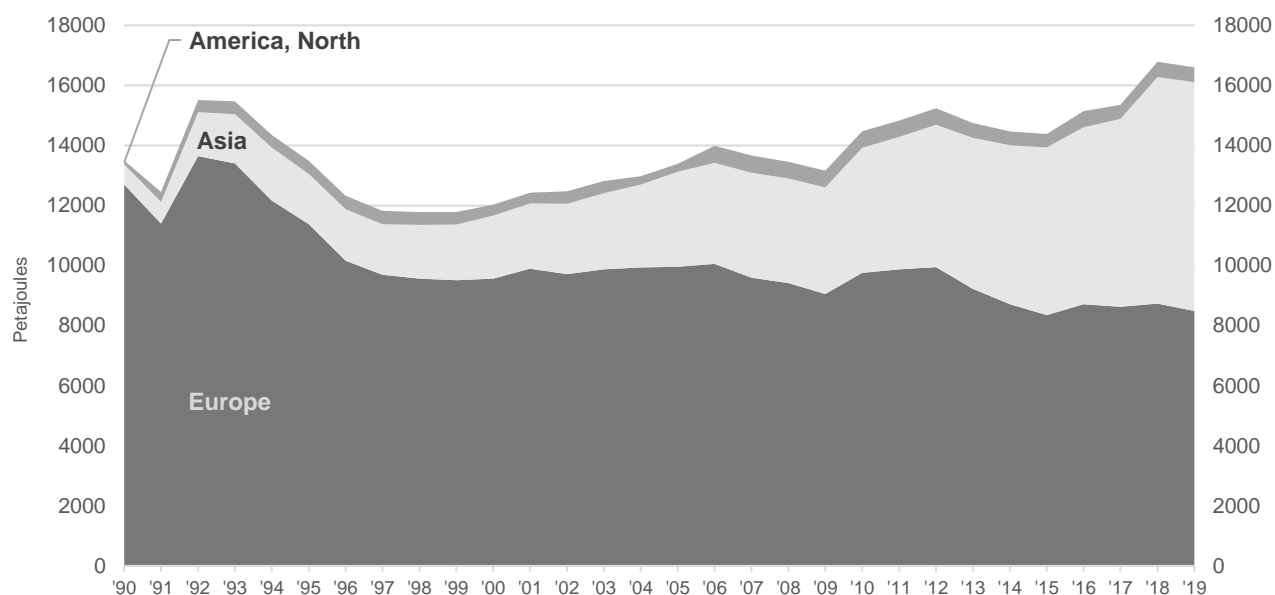
#### Table Notes

**Direct use geothermal** represents heat used directly for district heating, agriculture etc. without a commercial transaction taking place.

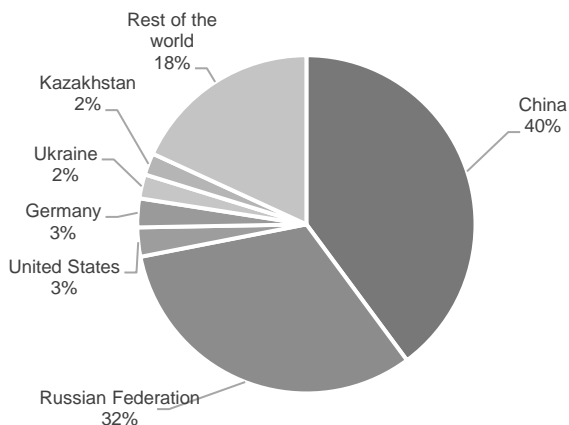
**Direct use solar thermal** represents heat used for the production of domestic hot water or for the seasonal heating of swimming pools (e.g. flat plate collectors, mainly of the thermosyphon type) without a commercial transaction taking place.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

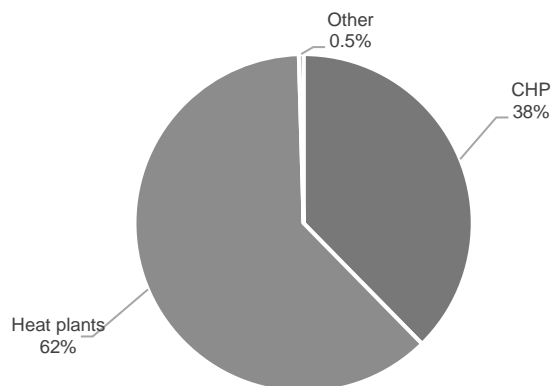
**Figure 84: Heat production by region, 1990-2019**



**Figure 85: Major heat producing countries, 2019**



**Figure 86: World heat production by type, 2019**



**Table 34****Production of heat - by type**

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
<b>World</b>	<b>2016</b>	<b>14,506,526</b>	<b>41,063</b>	<b>7,016</b>	<b>26,426</b>	<b>71,593</b>	<b>59,971</b>	<b>426,582</b>	<b>137,028</b>	<b>283,245</b>
	<b>2017</b>	<b>14,702,798</b>	<b>40,351</b>	<b>7,508</b>	<b>26,579</b>	<b>71,396</b>	<b>62,165</b>	<b>445,430</b>	<b>137,248</b>	<b>284,011</b>
	<b>2018</b>	<b>16,117,313</b>	<b>45,064</b>	<b>8,081</b>	<b>25,956</b>	<b>70,384</b>	<b>62,861</b>	<b>458,792</b>	<b>175,560</b>	<b>319,317</b>
	<b>2019</b>	<b>15,921,408</b>	<b>45,984</b>	<b>8,346</b>	<b>25,647</b>	<b>76,473</b>	<b>66,812</b>	<b>455,764</b>	<b>148,402</b>	<b>329,401</b>
<b>Africa</b>	<b>2016</b>	..	..	..	..	<b>3,730</b>	..	..	..	<b>7,124</b>
	<b>2017</b>	..	..	..	..	<b>3,880</b>	..	..	..	<b>7,551</b>
	<b>2018</b>	..	..	..	..	<b>5,094</b>	..	..	..	<b>7,836</b>
	<b>2019</b>	..	..	..	..	<b>4,820</b>	..	..	..	<b>7,991</b>
Namibia	2016	..	..	..	..	..	..	..	..	126
	2017	..	..	..	..	..	..	..	..	140
	2018	..	..	..	..	..	..	..	..	152
	2019	..	..	..	..	..	..	..	..	166
Senegal	2016	..	..	..	..	513	..	..	..	..
	2017	..	..	..	..	533	..	..	..	..
	2018	..	..	..	..	969	..	..	..	..
	2019	..	..	..	..	630	..	..	..	..
South Africa	2016	..	..	..	..	..	..	..	..	4,907
	2017	..	..	..	..	..	..	..	..	5,201
	2018	..	..	..	..	..	..	..	..	5,241
	2019	..	..	..	..	..	..	..	..	5,249
Tunisia	2016	..	..	..	..	3,217	..	..	..	2,091
	2017	..	..	..	..	3,347	..	..	..	2,210
	2018	..	..	..	..	4,125	..	..	..	2,443
	2019	..	..	..	..	4,191	..	..	..	2,576
<b>America, North</b>	<b>2016</b>	<b>528,363</b>	..	..	..	..	<b>340</b>	..	<b>11,828</b>	<b>94,420</b>
	<b>2017</b>	<b>470,248</b>	..	..	..	..	<b>576</b>	..	<b>11,108</b>	<b>90,135</b>
	<b>2018</b>	<b>503,595</b>	..	..	..	..	<b>576</b>	..	<b>43,934</b>	<b>118,442</b>
	<b>2019</b>	<b>487,125</b>	..	..	..	..	<b>576</b>	..	<b>14,096</b>	<b>128,528</b>
Canada	2016	19,628	..	..	..	..	..	..	..	1,760
	2017	19,294	..	..	..	..	..	..	..	1,797
	2018	25,648	..	..	..	..	..	..	..	1,810
	2019	24,047	..	..	..	..	..	..	..	1,810
Greenland	2016	*735	..	..	..	..	*340	..	..	..
	2017	*625	..	..	..	..	*576	..	..	..
	2018	*625	..	..	..	..	*576	..	..	..
	2019	*625	..	..	..	..	*576	..	..	..
Mexico	2016	..	..	..	..	..	..	..	..	10,180
	2017	..	..	..	..	..	..	..	..	10,888
	2018	..	..	..	..	..	..	..	..	12,531
	2019	..	..	..	..	..	..	..	..	13,796
St. Pierre-Miquelon	2016	..	..	..	..	..	..	..	..	..
	2017	..	..	..	..	..	..	..	..	..
	2018	..	..	..	..	..	..	..	..	..
	2019	32	..	..	..	..	..	..	..	..
United States	2016	508,000	..	..	..	..	..	..	11,828	82,480
	2017	450,328	..	..	..	..	..	..	11,108	77,450
	2018	477,322	..	..	..	..	..	..	43,934	104,101
	2019	462,421	..	..	..	..	..	..	14,096	112,922
<b>America, South</b>	<b>2016</b>	..	..	..	..	<b>0</b>	..	..	<b>102</b>	<b>3,128</b>
	<b>2017</b>	..	..	..	..	..	..	..	<b>102</b>	<b>3,464</b>
	<b>2018</b>	..	..	..	..	..	..	..	<b>102</b>	<b>3,902</b>
	<b>2019</b>	..	..	..	..	..	..	..	<b>102</b>	<b>4,400</b>

Table 34

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Chile	2016	..	..	..	..	0	..	..	..	1,739
	2017	..	..	..	..	..	..	..	..	2,082
	2018	..	..	..	..	..	..	..	..	2,465
	2019	..	..	..	..	..	..	..	..	2,919
Ecuador	2016	..	..	..	..	..	..	..	*102	..
	2017	..	..	..	..	..	..	..	*102	..
	2018	..	..	..	..	..	..	..	*102	..
	2019	..	..	..	..	..	..	..	*102	..
Peru	2016	..	..	..	..	..	..	..	..	1,389
	2017	..	..	..	..	..	..	..	..	1,382
	2018	..	..	..	..	..	..	..	..	1,437
	2019	..	..	..	..	..	..	..	..	1,482
<b>Asia</b>	<b>2016</b>	<b>5,855,732</b>	<b>0</b>	<b>5,485</b>	..	<b>2,159</b>	<b>16,890</b>	<b>16,724</b>	<b>91,988</b>	<b>70,970</b>
	<b>2017</b>	<b>6,213,406</b>	..	<b>5,632</b>	..	<b>2,187</b>	<b>18,329</b>	<b>16,870</b>	<b>91,671</b>	<b>71,662</b>
	<b>2018</b>	<b>7,501,898</b>	..	<b>5,778</b>	..	<b>2,172</b>	<b>17,440</b>	<b>18,362</b>	<b>96,643</b>	<b>70,933</b>
	<b>2019</b>	<b>7,562,913</b>	..	<b>5,925</b>	..	<b>2,170</b>	<b>21,926</b>	<b>20,085</b>	<b>97,331</b>	<b>68,108</b>
Armenia	2016	34	..	..	..	..	..	..	..	93
	2017	31	..	..	..	..	..	..	..	112
	2018	24	..	..	..	..	..	..	..	216
	2019	27	..	..	..	..	..	..	..	358
Azerbaijan	2016	7,282	..	..	..	..	..	..	..	..
	2017	6,580	..	..	..	..	..	..	..	..
	2018	12,236	..	..	..	..	3	..	..	..
	2019	14,013	..	..	..	..	3	..	..	..
China	2016	4,967,022	..	..	..	..	..	..	..	..
	2017	5,300,081	..	..	..	..	..	..	..	..
	2018	6,505,618	..	..	..	..	..	..	..	..
	2019	6,617,368	..	..	..	..	..	..	..	..
Cyprus	2016	50	..	..	..	..	..	..	65	2,887
	2017	54	..	..	..	..	..	..	65	2,940
	2018	54	..	..	..	..	..	..	65	3,015
	2019	51	..	..	..	..	..	..	65	3,062
Georgia	2016	0	0	..	..	..	..	..	642	127
	2017	..	..	..	..	..	..	..	658	128
	2018	..	..	..	..	..	..	..	670	129
	2019	..	..	..	..	..	..	..	680	130
Israel	2016	..	..	..	..	..	..	..	..	16,135
	2017	..	..	..	..	..	..	..	..	16,135
	2018	..	..	..	..	..	..	..	..	15,100
	2019	..	..	..	..	..	..	..	..	15,100
Japan	2016	13,869	..	..	..	..	5,691	2,664	5,366	10,387
	2017	13,937	..	..	..	..	5,754	2,713	5,367	9,677
	2018	13,357	..	..	..	..	6,948	2,462	5,367	8,447
	2019	13,357	..	..	..	..	6,948	2,462	5,367	7,736
Kazakhstan	2016	361,022	..	..	..	..	..	..	..	..
	2017	371,187	..	..	..	..	..	..	..	..
	2018	389,432	..	..	..	..	..	..	..	..
	2019	347,364	..	..	..	..	..	..	..	..
Korea, Republic of	2016	219,624	..	..	..	2,159	..	..	6,785	1,193
	2017	237,716	..	..	..	2,187	..	..	7,706	1,665
	2018	250,495	..	..	..	2,172	..	..	8,730	1,880
	2019	236,567	..	..	..	2,170	..	..	9,409	1,848

**Table 34****Production of heat - by type**

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Kyrgyzstan	2016	9,904	..	..	..	..	..	..	..	..
	2017	7,966	..	..	..	..	..	..	..	..
	2018	13,798	..	..	..	..	..	..	..	..
	2019	12,424	..	..	..	..	..	..	..	..
Lebanon	2016	..	..	..	..	..	..	..	..	1,017
	2017	..	..	..	..	..	..	..	..	*1,060
	2018	..	..	..	..	..	..	..	..	*1,060
	2019	..	..	..	..	..	..	..	..	1,060
Mongolia	2016	45,213	..	..	..	..	..	..	..	..
	2017	47,296	..	..	..	..	..	..	..	..
	2018	52,355	..	..	..	..	..	..	..	..
	2019	55,589	..	..	..	..	..	..	..	..
Other Asia	2016	66,802	..	..	..	..	..	..	..	4,225
	2017	64,130	..	..	..	..	..	..	..	4,262
	2018	97,523	..	..	..	..	..	..	..	3,945
	2019	89,906	..	..	..	..	..	..	..	3,808
State of Palestine	2016	..	..	5,485	..	..	..	..	..	..
	2017	..	..	5,632	..	..	..	..	..	..
	2018	..	..	5,778	..	..	..	..	..	..
	2019	..	..	5,925	..	..	..	..	..	..
Tajikistan	2016	1,648	..	..	..	..	..	..	..	..
	2017	1,793	..	..	..	..	..	..	..	..
	2018	*3,499	..	..	..	..	..	..	..	..
	2019	3,519	..	..	..	..	..	..	..	..
Thailand	2016	..	..	..	..	..	..	..	..	281
	2017	..	..	..	..	..	..	..	..	388
	2018	..	..	..	..	..	..	..	..	423
	2019	..	..	..	..	..	..	..	..	423
Turkey	2016	38,839	..	..	..	..	..	14,060	79,130	34,625
	2017	43,301	..	..	..	..	..	14,157	77,875	35,295
	2018	41,613	..	..	..	..	..	15,900	81,810	36,718
	2019	42,991	..	..	..	..	..	17,623	81,810	34,583
Turkmenistan	2016	9,846	..	..	..	..	..	..	..	..
	2017	10,877	..	..	..	..	..	..	..	..
	2018	10,877	..	..	..	..	..	..	..	..
	2019	10,877	..	..	..	..	..	..	..	..
Uzbekistan	2016	*114,578	..	..	..	..	..	..	..	..
	2017	*108,458	..	..	..	..	..	..	..	..
	2018	*111,018	..	..	..	..	..	..	..	..
	2019	*118,859	..	..	..	..	..	..	..	..
<b>Europe</b>	<b>2016</b>	<b>8,122,431</b>	<b>41,063</b>	<b>1,530</b>	<b>26,426</b>	<b>65,704</b>	<b>42,741</b>	<b>408,549</b>	<b>24,924</b>	<b>92,133</b>
	<b>2017</b>	<b>8,019,144</b>	<b>40,351</b>	<b>1,876</b>	<b>26,579</b>	<b>65,330</b>	<b>43,261</b>	<b>427,367</b>	<b>26,309</b>	<b>94,900</b>
	<b>2018</b>	<b>8,111,820</b>	<b>45,064</b>	<b>2,303</b>	<b>25,956</b>	<b>63,118</b>	<b>44,846</b>	<b>439,163</b>	<b>26,981</b>	<b>101,042</b>
	<b>2019</b>	<b>7,871,370</b>	<b>45,984</b>	<b>2,421</b>	<b>25,647</b>	<b>69,483</b>	<b>44,310</b>	<b>434,512</b>	<b>28,940</b>	<b>102,277</b>
Albania	2016	*113	..	..	..	..	..	..	..	504
	2017	113	..	..	..	..	..	..	..	553
	2018	122	..	..	..	..	..	..	..	564
	2019	151	..	..	..	..	..	..	..	558
Austria	2016	84,528	587	90	..	110	..	..	300	7,571
	2017	87,886	591	93	..	89	..	..	514	7,536
	2018	83,290	573	93	..	93	30	..	473	7,472
	2019	83,937	470	91	..	91	384	..	476	7,393

Table 34

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Belarus	2016	249,665	..	..	..	..	..	..	..	..
	2017	253,365	..	..	..	..	..	..	..	..
	2018	260,497	..	..	..	..	..	..	..	..
	2019	247,488	..	..	..	..	..	..	..	..
Belgium	2016	25,393	52	..	..	11,320	..	..	..	1,027
	2017	22,109	51	..	..	11,272	..	..	..	1,062
	2018	24,190	53	..	..	10,288	..	..	..	1,154
	2019	20,915	56	..	..	9,901	..	..	..	1,148
Bosnia and Herzegovina	2016	5,657	..	..	..	..	..	..	..	..
	2017	5,793	..	..	..	..	..	..	..	..
	2018	5,759	..	..	..	..	..	..	..	..
	2019	5,571	..	..	..	..	..	..	..	..
Bulgaria	2016	45,663	..	..	612	1,927	..	..	1,450	937
	2017	41,627	..	..	696	1,844	..	..	1,450	983
	2018	35,433	..	..	718	1,818	..	..	1,450	1,044
	2019	35,920	..	..	660	2,217	..	..	1,470	1,092
Croatia	2016	11,411	..	..	..	..	..	..	379	484
	2017	12,430	..	..	..	..	..	..	345	538
	2018	12,698	..	..	..	..	..	..	320	584
	2019	13,182	..	..	..	..	..	..	301	647
Czechia	2016	124,778	..	..	883	325	67	1,533	..	699
	2017	120,551	..	..	908	322	101	1,070	..	731
	2018	115,419	..	..	864	706	109	1,135	..	753
	2019	113,717	..	..	853	669	125	1,027	..	767
Denmark	2016	129,150	112	1,392	..	..	822	3,457	..	589
	2017	128,886	76	1,733	..	..	1,138	3,774	..	597
	2018	127,210	55	2,157	..	..	1,490	4,087	..	603
	2019	122,786	34	2,270	..	..	1,955	4,338	..	611
Estonia	2016	24,141	..	..	..	..	..	..	..	..
	2017	24,304	..	..	..	..	..	..	..	..
	2018	24,889	..	..	..	..	..	..	..	..
	2019	21,958	..	..	..	..	..	..	..	..
Finland	2016	185,583	..	..	..	5,080	4,106	1,019	..	69
	2017	173,685	..	..	..	4,731	4,429	10,080	..	75
	2018	170,696	..	..	..	4,446	4,344	10,077	..	83
	2019	165,855	..	..	..	4,567	4,283	10,570	..	91
France	2016	158,101	4,397	..	..	..	519	4,499	1,681	6,948
	2017	161,535	5,613	..	..	..	527	3,641	1,681	7,207
	2018	150,717	5,986	..	..	..	982	3,278	1,681	7,583
	2019	156,479	6,481	..	..	..	1,362	4,872	1,681	7,843
Germany	2016	461,067	797	6	..	..	..	7,389	3,329	27,689
	2017	461,662	641	7	..	..	..	7,492	3,563	28,266
	2018	460,597	1,333	8	..	..	..	6,133	3,558	31,942
	2019	449,395	1,732	13	..	..	..	6,341	3,390	30,525
Greece	2016	2,134	..	..	..	..	..	..	423	11,071
	2017	2,137	..	..	..	..	..	..	370	11,365
	2018	2,167	..	..	..	..	..	..	371	11,607
	2019	2,203	..	..	..	..	..	..	432	11,968
Hungary	2016	48,096	2,700	..	649	..	..	2,321	2,120	468
	2017	46,514	2,749	..	637	..	..	2,588	2,588	493
	2018	44,065	2,540	..	620	..	..	2,641	2,761	527
	2019	41,854	2,864	..	585	..	81	3,069	2,832	560



Table 34

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Iceland	2016	13	30,946	..	..	..	959	..	3,298	..
	2017	61	29,394	..	..	..	797	..	3,273	..
	2018	19	33,223	..	..	..	929	..	3,277	..
	2019	16	33,039	..	..	..	947	..	3,265	..
Ireland	2016	..	..	..	..	..	..	..	..	506
	2017	..	..	..	..	..	..	..	..	529
	2018	..	..	..	..	..	..	..	..	567
	2019	..	..	..	..	..	..	..	..	573
Italy	2016	223,037	810	3	..	..	..	..	5,222	8,378
	2017	232,623	793	4	..	..	..	..	5,478	8,741
	2018	228,673	878	6	..	..	..	..	5,364	9,145
	2019	230,526	870	6	..	..	..	..	5,477	9,544
Kosovo	2016	46	..	..	..	..	749	..	..	14
	2017	45	..	..	..	..	772	..	..	14
	2018	45	..	..	..	..	787	..	..	15
	2019	28	..	..	..	..	830	..	..	16
Latvia	2016	28,959	..	..	..	..	8	0	..	..
	2017	29,983	..	..	..	..	6	12	..	..
	2018	29,682	..	..	..	..	6	..	..	..
	2019	28,604	..	3	..	..	5	..	..	2
Liechtenstein	2016	388	..	37	..	..	..	..	..	..
	2017	387	..	38	..	..	..	..	..	..
	2018	417	..	37	..	..	..	..	..	..
	2019	432	..	36	..	..	..	..	..	..
Lithuania	2016	33,652	41	..	..	9,446	9	..	..	..
	2017	34,957	15	..	..	11,765	9	..	..	..
	2018	34,623	..	..	..	11,272	9	..	..	..
	2019	31,735	..	..	..	11,034	9	..	..	..
Luxembourg	2016	2,432	..	..	..	..	..	..	..	86
	2017	2,759	..	0	..	..	..	..	..	91
	2018	3,125	..	0	..	..	..	..	..	99
	2019	4,026	..	0	..	..	..	..	..	102
Malta	2016	3	..	..	..	..	..	..	..	207
	2017	3	..	..	..	..	..	..	..	209
	2018	0	..	..	..	..	..	..	..	211
	2019	1	..	..	..	..	..	..	..	212
Netherlands	2016	116,294	..	..	..	8,559	..	2,149	2,844	1,147
	2017	112,489	..	..	..	8,279	..	1,506	3,047	1,139
	2018	100,247	..	..	..	8,047	..	341	3,731	1,156
	2019	105,081	..	..	..	9,031	..	..	5,564	1,207
North Macedonia	2016	2,239	..	..	..	..	..	..	210	..
	2017	2,419	..	..	..	..	..	..	198	..
	2018	2,245	..	..	..	..	..	..	190	..
	2019	2,051	..	..	..	..	..	..	184	..
Norway	2016	15,948	..	..	..	3,360	5,458	792	..	..
	2017	16,737	..	..	..	3,535	5,478	829	..	..
	2018	17,827	..	..	..	3,648	5,023	713	..	..
	2019	18,418	..	..	..	3,581	4,824	763	..	..
Poland	2016	292,247	..	..	..	495	4	54	930	2,189
	2017	299,016	..	..	..	659	5	78	946	2,280
	2018	294,097	..	..	..	457	5	115	991	2,383
	2019	286,234	..	..	..	528	3	286	1,050	3,009

Table 34

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Portugal	2016	18,846	..	..	..	..	..	..	57	3,515
	2017	19,101	..	..	..	..	..	..	65	3,683
	2018	20,180	..	..	..	..	..	..	73	3,953
	2019	20,927	..	..	..	..	..	..	72	4,033
Republic of Moldova	2016	10,606	..	..	..	..	..	..	..	..
	2017	10,251	..	..	..	..	..	..	..	..
	2018	10,658	..	..	..	..	..	..	..	..
	2019	9,670	..	..	..	..	..	..	..	..
Romania	2016	76,505	256	..	..	..	..	..	1,071	22
	2017	74,328	262	..	..	..	..	..	1,098	31
	2018	71,225	246	..	..	..	..	..	1,066	31
	2019	61,203	243	..	..	..	..	..	1,045	30
Russian Federation	2016	4,988,962	207	..	14,637	..	12,852	363,085	..	..
	2017	4,924,203	0	..	14,593	..	13,366	373,030	..	..
	2018	5,064,879	0	..	14,011	..	14,646	388,539	..	..
	2019	4,914,229	..	..	14,246	..	13,209	380,746	..	..
Serbia	2016	36,097	..	..	..	..	..	..	214	..
	2017	37,089	..	..	..	..	..	..	213	..
	2018	36,178	..	..	..	..	..	..	215	..
	2019	33,505	..	..	..	..	..	..	220	..
Slovakia	2016	35,325	140	2	1,976	..	63	10	66	232
	2017	35,434	148	1	2,096	..	95	7	63	272
	2018	29,113	159	2	1,917	..	107	17	58	297
	2019	29,079	175	2	1,882	..	119	14	58	316
Slovenia	2016	8,982	18	..	..	..	..	..	488	440
	2017	9,434	18	..	..	..	..	..	577	441
	2018	9,296	19	..	..	..	..	..	560	443
	2019	9,124	19	..	..	..	..	..	582	443
Spain	2016	..	..	..	..	..	..	..	789	12,278
	2017	..	..	..	..	..	..	..	789	12,912
	2018	..	..	..	..	..	..	..	789	13,597
	2019	..	..	..	..	..	..	..	789	14,265
Sweden	2016	176,404	..	..	..	..	17,025	20,459	..	468
	2017	173,473	..	..	..	..	16,434	21,996	..	464
	2018	173,343	..	..	..	..	16,366	20,707	..	457
	2019	170,111	..	..	..	..	16,175	21,301	..	446
Switzerland	2016	20,515	..	..	1,330	..	100	..	19	2,450
	2017	20,698	..	..	1,320	..	102	..	17	2,508
	2018	20,431	..	..	1,350	..	13	..	18	2,565
	2019	22,532	..	..	1,380	..	..	..	18	2,642
Ukraine	2016	414,323	..	..	6,339	25,082	..	1,782	..	..
	2017	374,362	..	..	6,329	22,833	..	1,263	..	..
	2018	381,170	..	..	6,476	22,342	..	1,379	..	..
	2019	346,992	..	..	6,041	27,865	..	1,185	..	..
United Kingdom	2016	65,128	..	..	..	..	..	..	34	2,145
	2017	66,695	..	..	..	..	..	..	34	2,179
	2018	66,597	..	..	..	..	..	..	34	2,208
	2019	65,435	..	..	..	..	..	..	34	2,232
<b>Oceania</b>	<b>2016</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1,309</b>	<b>8,187</b>	<b>15,470</b>
	<b>2017</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1,193</b>	<b>8,058</b>	<b>16,298</b>
	<b>2018</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1,267</b>	<b>7,901</b>	<b>17,162</b>
	<b>2019</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1,167</b>	<b>7,933</b>	<b>18,096</b>

Table 34

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Australia	2016	..	..	..	..	..	..	..	..	14,872
	2017	..	..	..	..	..	..	..	..	15,698
	2018	..	..	..	..	..	..	..	..	16,560
	2019	..	..	..	..	..	..	..	..	17,493
French Polynesia	2016	..	..	..	..	..	..	..	..	75
	2017	..	..	..	..	..	..	..	..	76
	2018	..	..	..	..	..	..	..	..	78
	2019	..	..	..	..	..	..	..	..	80
New Caledonia	2016	..	..	..	..	..	..	..	..	140
	2017	..	..	..	..	..	..	..	..	141
	2018	..	..	..	..	..	..	..	..	141
	2019	..	..	..	..	..	..	..	..	141
New Zealand	2016	..	..	..	..	..	..	1,309	8,187	364
	2017	..	..	..	..	..	..	1,193	8,058	364
	2018	..	..	..	..	..	..	1,267	7,901	364
	2019	..	..	..	..	..	..	1,167	7,933	364
Niue	2016	..	..	..	..	..	..	..	..	*16
	2017	..	..	..	..	..	..	..	..	*16
	2018	..	..	..	..	..	..	..	..	*16
	2019	..	..	..	..	..	..	..	..	*16
Samoa	2016	..	..	..	..	..	..	..	..	3
	2017	..	..	..	..	..	..	..	..	*3
	2018	..	..	..	..	..	..	..	..	*3
	2019	..	..	..	..	..	..	..	..	*3





**Production of uranium (uranium content)**

Metric tons

**Table Notes**

Data are primarily based on country submissions and Table 1.19 of the OECD and IAEA publication *Uranium 2020: Resources, Production and Demand*, OECD Publishing, available at [https://www.oecd-neo.org/upload/docs/application/pdf/2020-12/7555\\_uranium\\_-\\_resources\\_production\\_and\\_demand\\_2020\\_web.pdf](https://www.oecd-neo.org/upload/docs/application/pdf/2020-12/7555_uranium_-_resources_production_and_demand_2020_web.pdf).

These sources are complemented with data from the World Nuclear Association, available at <http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/mining-of-uranium/world-uranium-mining-production.aspx>.

Production for Bulgaria, France, Germany and Hungary comes from mine rehabilitation efforts only.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Table 35

## Production of uranium (uranium content)

Metric tons

Country or area	2016	2017	2018	2019
<b>World</b>	<b>62,375</b>	<b>59,717</b>	<b>53,503</b>	<b>54,786</b>
<b>Africa</b>	<b>7,622</b>	<b>8,017</b>	<b>8,781</b>	<b>8,804</b>
Malawi	0	0	0	0
Namibia	3,654	4,224	5,525	5,476
Niger	3,478	3,485	2,910	2,982
South Africa	490	308	346	346
<b>America, North</b>	<b>15,164</b>	<b>14,056</b>	<b>7,583</b>	<b>7,005</b>
Canada	14,039	13,116	7,001	6,938
United States	1,125	940	582	67
<b>America, South</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Brazil	0	0	0	0
<b>Asia</b>	<b>29,025</b>	<b>28,186</b>	<b>26,533</b>	<b>28,617</b>
China	1,616	1,885	1,885	1,885
India	385	421	423	308
Iran (Islamic Rep. of)	0	40	71	71
Kazakhstan	24,575	23,391	21,705	22,808
Pakistan	45	45	45	45
Uzbekistan	2,404	2,404	2,404	3,500
<b>Europe</b>	<b>4,249</b>	<b>3,576</b>	<b>4,089</b>	<b>3,747</b>
Czechia	138	70	0	0
France	3	2	0	2
Germany	45	34	0	30
Hungary	4	3	5	3
Romania	50	0	0	0
Russian Federation	3,004	2,917	2,904	2,911
Ukraine	1,005	550	1,180	801
<b>Oceania</b>	<b>6,315</b>	<b>5,882</b>	<b>6,517</b>	<b>6,613</b>
Australia	6,315	5,882	6,517	6,613







**Selected energy resources and reserves**

Million metric tons unless otherwise indicated

**Table Notes**

Based on country submissions and the publication *World Energy Resources - 2016*, World Energy Council (WEC), available at <https://www.worldenergy.org/publications/2016/world-energy-resources-2016/>.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Table 36

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Afghanistan	66	66	400	..	..	..	..	..
Albania	..	..	..	727	522	..	..	155
Algeria	223	59	164	..	..	..	..	..
Angola	..	..	..	..	..	..	..	..
Argentina	800	500	..	7,300	500	273	90	*80
Armenia	317	163	..	..	..	..	..	..
Australia	1,598,761	62,095	125,000	443,431	44,164	215,000	..	..
Austria	1	..	3	333	25	61	..	..
Azerbaijan	..	..	..	..	..	..	..	..
Bahrain	..	..	..	..	..	..	..	..
Bangladesh	3,260	293	..	3	..	..	*138	..
Barbados	..	..	..	..	..	..	..	..
Belarus	..	..	..	1,500	100	..	323	323
Belgium	4,100	410	1,400	..	..	..	..	..
Belize	..	..	..	..	..	..	..	..
Benin	..	..	..	..	..	..	..	..
Bhutan	..	..	..	..	..	..	..	..
Bolivia (Plur. State of)	1	1	..	..	..	..	..	..
Bosnia and Herzegovina	..	484	..	5,274	2,264	..	..	..
Botswana	21,240	40	205,253	..	..	..	..	..
Brazil	6,212	1,547	..	17,636	5,049	15,319	..	..
Brunei Darussalam	..	..	..	..	..	..	..	..
Bulgaria	4,112	192	1,200	4,574	2,174	2,618	5	5
Burkina Faso	..	..	..	..	..	..	..	..
Burundi	..	..	..	..	..	..	56	56
Cambodia	..	..	..	..	..	..	..	..
Cameroon	..	..	..	..	..	..	..	..
Canada	187,606	4,346	26,045	120,506	2,236	31,990	1,092	..
Central African Rep.	..	..	..	3	3	..	..	..
Chad	..	..	..	..	..	..	..	..
Chile	5,316	1,181	125	7	155	5,000	..	..
China	5,462,672	124,059	363,200	332,652	7,555	304,700	4,687	328
Colombia	14,809	4,881	13,173	411	380	3,176	..	..
Congo	..	..	..	..	..	..	..	..
Costa Rica	17	..	..	27	..	22	48	..
Côte d'Ivoire	..	..	..	..	..	..	..	..
Croatia	4	4	..	300	33	..	..	..
Cuba	..	..	..	..	..	..	..	..
Cyprus	..	..	..	..	..	..	..	..
Czechia	16,526	1,107	..	9,767	2,604	..	..	..
Dem. Rep. of the Congo	988	88	..	..	..	..	..	..
Denmark	..	..	..	63	..	..	..	..
Dominica	..	..	..	..	..	..	..	..
Dominican Republic	..	..	..	84	..	..	..	..
Ecuador	..	..	..	24	24	6	..	..
Egypt	182	16	..	27	22	52	..	..
El Salvador	..	..	..	..	..	..	..	..
Equatorial Guinea	..	..	..	..	..	..	..	..
Estonia	..	..	..	..	..	..	2,000	2,000
Eswatini	4,644	144	793	..	..	..	..	..
Ethiopia	..	..	..	23	11	..	..	..
Faeroe Islands	..	..	..	..	..	..	..	..
Falkland Is. (Malvinas)	..	..	..	..	..	..	..	..
Fiji	..	..	..	..	..	..	..	..
Finland	..	..	..	..	..	..	850	420
France	160	95	200	114	21	165	..	..
French Guiana	..	..	..	..	..	..	..	..
French Polynesia	..	..	..	..	..	..	..	..
Gabon	..	..	..	..	..	..	..	..
Georgia	901	201	..	..	..	..	..	..

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)	
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources		Inferred Resources
..	*50	..	..	..	..	..	..	394,000
..	*1	..	*26	..	5	..	..	40,000
..	4,504	1,537	..	..	..	19,500	..	12,000
..	*308	1,709	..	..	74	..	..	150,000
50	332	328	..	57	..	8,600	11,000	354,000
..	*18	..	..	44	..	..	..	22,000
..	3,471	442	4,531	..	..	1,174,000	558,700	265,000
..	*10	*7	1	..	..	..	..	150,000
..	1,148	959	..	..	20	..	..	44,000
..	172	15	..	..	..	..	..	..
*138	232	*4	..	..	..	..	..	4,000
..	0	0	..	..	..	..	..	..
1,479	*3	27	1,000	..	..	..	..	8,000
..	0	..	..	..	..	..	..	1,000
..	..	0	..	..	..	..	..	1,000
..	*1	1	..	..	..	..	..	2,000
..	..	..	..	..	..	..	..	263,000
..	281	*22	..	..	..	..	..	178,000
..	..	..	..	..	..	..	..	70,000
..	..	..	..	..	..	..	..	..
487	424	1,890	11,734	..	..	23,100	59,100	..
..	276	*150	..	..	..	155,100	121,000	3,040,000
..	*6	*2	18	..	..	..	..	..
..	..	..	..	..	..	..	..	27,000
..	..	..	..	..	..	..	..	1,000
..	..	..	..	..	..	..	..	6,000
..	..	..	..	..	..	..	..	88,000
..	*150	*18	..	..	..	..	..	294,000
336,908	1,987	27,755	2,192	27,134	..	357,500	192,500	2,067,000
..	..	..	..	..	..	12,000	..	7,000
..	..	216	..	..	..	..	..	150
..	*40	*20	3	..	..	700	1,200	227,000
952	3,841	2,521	47,600	120	..	120,000	56,600	6,083,000
..	135	333	..	..	5	..	..	1,000,000
..	115	*190	..	..	81	..	..	50,000
22	..	..	..	..	..	..	..	224,000
..	28	*14	..	..	..	..	..	46,000
..	*25	*7	..	..	..	..	..	20,000
280	*71	*3	..	..	8	..	..	3,000
..	*142	..	..	..	..	..	..	59,000
..	4	*2	..	..	..	1,300	100	13,000
..	*1	*24	14,310	..	5	1,400	1,300	1,397,000
..	31	74	..	..	..	..	..	120
..	..	..	..	..	..	..	..	200
..	..	..	..	..	..	..	..	50,000
..	*11	1,175	..	..	7	..	..	169,000
..	1,846	458	816	..	8	..	1,900	125,000
..	..	..	..	..	..	..	..	7,000
..	*37	149	..	..	..	..	..	..
..	..	..	2,494	..	..	..	..	2,000
..	..	..	..	..	..	..	..	4,000
..	*25	0	..	..	..	..	..	650,000
..	..	..	..	..	..	..	..	1,000
28	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	3,000
2,200	..	..	..	..	..	1,100	..	31,000
..	*10	*11	1,002	..	..	11,500	100	270,000
..	..	..	..	..	..	..	..	2,000
..	..	..	..	..	..	..	..	1,000
..	*28	274	..	..	..	4,800	1,000	200,000
..	*9	*5	..	..	0	..	..	136,000

Table 36

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Germany	82,982	21	8,065	76,800	36,300	34,100	157	96
Ghana	..	..	..	..	..	..	..	..
Greece	..	..	..	6,430	2,876	..	4,000	..
Greenland	383	183	..	183	183	200	..	..
Grenada	..	..	..	..	..	..	..	..
Guatemala	..	..	..	..	..	..	..	..
Guinea	..	..	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..
Guyana	..	..	..	..	..	..	..	..
Haiti	..	..	..	40	..	27	..	..
Honduras	..	..	..	21	..	..	..	..
Hungary	5,351	276	298	5,337	2,633	2,630	..	..
Iceland	..	..	..	..	..	..	..	..
India	260,544	85,562	157,435	42,645	4,714	32,893	..	..
Indonesia	109,825	17,394	6,035	40,639	8,274	38,704	49,000	..
Iran (Islamic Rep. of)	41,203	1,203	..	2,295	..	..	..	..
Iraq	..	..	..	..	..	..	..	..
Ireland	40	14	26	..	9	..	154	106
Israel	..	..	..	..	..	..	500	386
Italy	610	10	..	29	7	600	..	..
Jamaica	..	..	..	..	..	..	200	32
Japan	13,883	340	6,298	1,036	10	7,122	..	..
Jordan	..	..	..	..	..	..	..	..
Kazakhstan	148,695	25,605	..	..	12,100	..	..	..
Kenya	..	..	..	..	..	..	..	..
Korea, Dem.Ppl's.Rep.	10,600	600	2,700	300	300	2,200	..	..
Korea, Republic of	1,686	326	272	209	126	812	..	..
Kuwait	..	..	..	..	..	..	..	..
Kyrgyzstan	28,499	971	..	..	812	..	..	..
Lao People's Dem. Rep.	62	4	..	521	499	..	..	..
Latvia	..	..	..	..	..	..	190	94
Lebanon	..	..	..	..	..	..	..	..
Lesotho	..	..	..	..	..	..	..	..
Liberia	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..
Lithuania	..	..	..	..	..	..	937	269
Madagascar	150	..	..	37	..	..	..	..
Malawi	802	2	..	..	2	..	..	..
Malaysia	1,209	141	78	451	39	575	..	..
Mali	..	..	..	3	..	3	..	..
Mauritania	..	..	..	..	..	..	..	..
Mauritius	..	..	..	..	..	..	..	..
Mexico	4,160	1,160	1,960	51	51	213	..	..
Mongolia	41,024	1,170	..	120,776	1,350	..	..	..
Montenegro	337	142	..	..	..	..	..	..
Morocco	96	14	..	40	..	2	..	..
Mozambique	23,636	1,792	155	..	..	..	..	..
Myanmar	252	3	120	5	3	80	..	..
Namibia	350	..	..	..	..	..	..	..
Nepal	8	1	..	1	1	7	..	..
Netherlands	3,247	497	2,750	..	..	..	120	120
New Caledonia	2	2	8	..	..	..	..	..
New Zealand	3,175	825	942	11,350	6,750	11,902	1,640	..
Nicaragua	..	..	..	..	..	..	..	..
Niger	90	70	..	6	6	..	..	..
Nigeria	2,144	287	21	377	57	1,000	..	..
North Macedonia	..	..	..	632	332	..	..	..
Norway	93	2	..	64	5	100	745	350
Oman	..	..	..	..	..	..	..	..
Pakistan	5,996	207	5	179,596	2,857	68,068	..	..

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources	
200	39	*31	286	..	3,000	4,000	120,000
..	*23	*90	..	..	..	..	28,000
..	*1	*1	..	..	1,000	6,000	80,000
..	..	..	..	..	..	134,700	550,000
..	..	..	..	..	..	..	38
..	3	*11	..	..	..	..	59,000
..	..	232	..	..	..	..	26,000
..	..	..	..	..	..	..	1,000
..	..	..	..	..	..	..	81,000
..	..	..	..	..	..	..	4,000
..	..	..	..	..	..	..	16,000
238	*8	*4	8	..	..	8,600	10,000
..	..	..	..	..	..	..	184,000
..	1,489	764	..	..	77,000	27,900	2,638,000
..	2,839	498	..	67	8,400	2,200	2,147,000
..	34,020	*21,433	..	..	700	1,800	448,000
..	3,694	19,308	..	..	..	..	225,000
140	*10	..	..	..	..	..	1,000
1,000	181	*2	550	0	..	..	0
2,500	45	82	10,446	48	4,800	1,300	190,000
..	..	..	..	..	..	..	1,000
..	*21	*4	..	..	6,600	..	718,000
..	*6	0	5,242	5	0	33,800	4,000
..	936	3,932	400	6,689	285,600	417,300	170,000
..	..	..	..	..	..	..	24,000
..	..	..	..	..	..	..	..
..	6	..	..	..	..	..	52,000
..	1,784	13,981	..	..	..	..	..
..	*6	*5	..	..	..	..	163,000
..	..	..	..	..	..	..	233,000
760	..	..	..	..	..	..	7,000
..	..	..	..	..	..	..	2,000
..	..	..	..	..	..	..	5,000
..	..	..	..	..	..	..	28,000
..	1,505	6,297	..	..	..	..	..
..	..	*1	..	..	..	..	6,000
..	2	..	5	35	..	..	321,000
..	..	..	..	..	8,200	5,700	15,000
..	*1,169	471	..	..	..	..	230,000
..	..	..	..	..	..	..	12,000
..	*28	*3	..	..	..	..	..
..	..	..	..	..	..	..	150
..	324	1,496	..	0	2,800	0	430,000
..	..	*35	42	..	30,600	25,100	57,000
..	..	..	..	..	..	..	27,000
..	*1	0	8,167	..	..	..	12,000
..	*2,832	*2	..	..	..	..	103,000
..	528	*3	286	..	..	..	348,000
..	*62	..	..	..	248,200	155,500	23,000
..	0	..	..	..	..	..	733,000
..	675	*30	..	..	..	..	11,000
..	..	..	..	..	..	..	2,000
..	*28	*17	3	..	..	..	205,000
..	..	..	..	..	..	..	33,000
..	..	*20	..	..	325,000	104,900	3,000
..	5,111	5,003	..	91	..	..	43,000
..	..	..	..	..	..	..	9,000
7,015	1,857	994	..	..	..	..	600,000
..	688	720	..	..	..	..	..
..	543	*50	..	..	..	..	475,000

Table 36

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Panama	..	..	..	..	..	..	..	..
Papua New Guinea	..	..	..	..	..	..	..	..
Paraguay	..	..	..	..	..	..	..	..
Peru	1,567	102	..	100	100	..	..	..
Philippines	1,223	211	8	1,017	105	37	..	..
Poland	178,913	16,203	27,405	227,886	5,429	11,837	890	..
Portugal	3	3	..	66	33	..	..	..
Qatar	..	..	..	..	..	..	..	..
Republic of Moldova	..	..	..	..	..	..	..	..
Romania	2,446	11	2,143	9,920	280	8,177	25	13
Russian Federation	2,727,915	69,634	200,000	1,379,623	90,730	200,000	17,680	11,554
Rwanda	..	..	..	..	..	..	..	..
Samoa	..	..	..	..	..	..	..	..
Saudi Arabia	..	..	..	..	..	..	..	..
Senegal	..	..	..	..	..	..	40	24
Serbia	855	402	..	20,186	7,112	..	..	..
Serbia and Montenegro	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	2	..	..	..	..
Slovakia	19	2	..	1,073	135	..	..	..
Slovenia	95	56	..	656	315	40	..	..
Solomon Islands	..	..	..	..	..	..	..	..
Somalia	..	..	..	..	..	..	..	..
South Africa	213,560	9,893	5,000	30	..	100	47	30
South Sudan	..	..	..	..	..	..	..	..
Spain	4,231	868	3,000	319	319	1,260	94	70
Sri Lanka	..	..	..	..	..	..	5	5
Sudan	..	..	..	..	..	..	..	..
Sudan (former)	..	..	..	..	..	..	..	..
Suriname	..	..	..	..	..	..	..	..
Sweden	5	1	..	4	1	20	700	70
Switzerland	..	..	..	..	..	..	..	..
Syrian Arab Republic	..	..	..	..	..	..	..	..
Tajikistan	4,075	375	..	..	..	..	..	..
Thailand	..	..	..	1,889	1,063	2,857	..	..
Timor-Leste	..	..	..	..	..	..	..	..
Togo	..	..	..	..	..	..	..	..
Trinidad and Tobago	..	..	..	..	..	..	..	..
Tunisia	..	..	..	..	..	..	..	..
Turkey	1,182	380	249	12,828	12,466	296	..	..
Turkmenistan	800	..	..	..	..	..	..	..
Uganda	800	..	..	..	..	..	..	..
Ukraine	81,045	32,039	5,170	7,717	2,336	6,174	2,160	684
United Arab Emirates	..	..	..	..	..	..	..	..
United Kingdom	186,770	70	190	1,000	500	..	..	..
United Rep. of Tanzania	1,410	269	*1,500	..	..	..	..	..
United States	6,680,329	222,641	445,346	1,398,360	30,483	667,415	26,000	13,000
Uruguay	..	..	..	..	..	..	..	..
Uzbekistan	10,852	1,375	..	..	1,853	..	..	..
Venezuela (Bolivar. Rep.)	6,712	731	4,528	..	..	..	..	..
Viet Nam	6,635	3,116	..	200,120	244	..	..	..
Yemen	..	..	..	..	..	..	..	..
Zambia	945	45	..	69	55	18	..	..
Zimbabwe	25,502	502	5,820	965	..	..	..	..

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)	
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources		Inferred Resources
..	..	..	..	..	..	..	..	26,000
..	141	*24	..	..	..	..	..	175,000
200	..	..	..	..	..	..	..	111,000
..	414	170	..	1	1,300	1,300	..	1,577,000
..	*99	*15	..	..	..	..	..	47,000
2,300	95	15	7	..	..	..	..	25,000
..	..	..	..	..	6,000	1,000	..	32,000
..	24,528	2,695	..	..	..	..	..	..
..	..	..	..	..	..	..	..	2,000
10	110	80	..	1	3,100	3,600	..	70,000
168,320	32,271	14,024	35,470	4,518	216,500	432,000	..	2,295,000
2,000	*57	..	..	..	..	..	..	2,000
..	..	..	..	..	..	..	..	140
..	8,325	36,618	..	..	..	..	..	..
52	10	0	..	..	..	..	..	11,000
..	31	*7	..	..	..	..	..	27,000
..	45	22	..	..	..	..	..	118,000
..	..	*60	..	..	..	..	..	11,000
..	*14	*1	..	..	0	9,000	..	10,000
..	0	0	..	..	1,700	7,500	..	19,000
..	..	..	..	..	..	..	..	3,000
..	*6	..	..	..	5,000	2,600	..	2,000
..	10	*2	19	..	175,300	179,200	..	73,000
..	..	472	..	..	..	..	..	..
..	*3	*19	40	..	14,000	0	..	162,000
46	..	..	..	..	..	..	..	21,000
..	..	202	..	..	..	..	..	..
..	85	682	..	..	..	..	..	48,000
..	..	*12	..	..	..	..	..	39,000
..	..	..	875	..	5,000	8,500	..	200,000
..	..	..	..	..	..	..	..	125,000
..	285	*340	..	..	..	..	..	11,000
..	*6	*2	..	..	..	..	..	527,000
..	220	49	916	..	..	..	..	18,000
..	..	*59	..	..	..	..	..	..
..	..	..	..	..	..	..	..	4,000
..	326	*113	..	1	..	..	..	..
..	*65	55	..	..	..	..	..	1,000
..	*7	*46	284	..	7,300	..	..	433,000
..	17,479	82	1,100	..	..	..	..	24,000
..	*14	*136	..	..	..	..	..	33,000
1,846	604	*54	600	..	84,800	81,300	..	45,000
..	6,091	12,976	..	..	..	..	..	..
..	206	374	501	12	..	..	..	35,000
..	*1,317	..	..	..	30,100	15,600	..	39,000
..	10,441	*6,857	536,931	3	207,400	..	..	2,040,000
46	..	..	..	..	..	..	..	32,000
..	1,086	81	1,200	..	59,400	31,900	..	88,000
..	5,617	*26,807	..	9,212	..	..	..	731,000
..	617	*599	..	..	1,000	5,400	..	300,000
..	266	409	..	..	..	..	..	..
..	..	..	..	..	9,900	5,700	..	53,000
..	..	..	..	..	1,400	..	..	44,000