

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

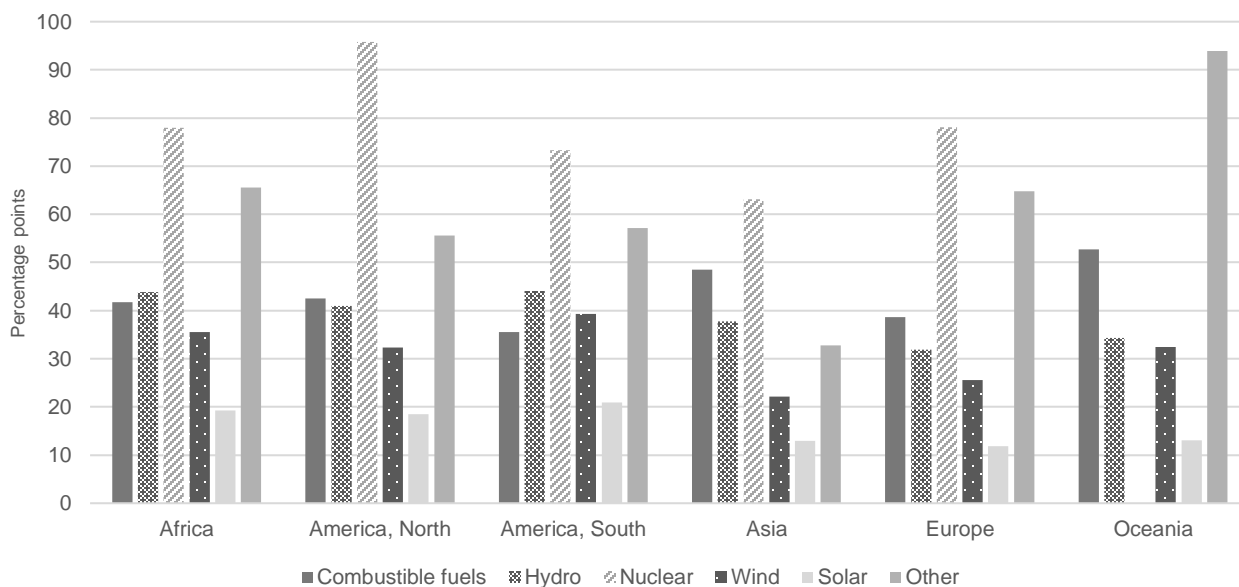


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Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2016	43	45	38	75	23	12	63
	2017	43	46	38	75	25	12	64
	2018	42	46	38	76	26	13	45
	2019	42	45	38	79	26	14	44
Africa	2016	47	49	43	98	25	18	75
	2017	45	46	42	93	28	20	79
	2018	43	44	43	68	30	18	88
	2019	42	42	44	78	36	19	66
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	..

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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

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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

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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

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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	..

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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

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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	..

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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

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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	..	..	..	..
America, North	2016	46	44	41	94	32	17	73
	2017	45	42	44	94	33	18	62
	2018	46	44	43	95	33	18	57
	2019	45	43	41	96	32	18	56
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

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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	..	..
45	54	58	17	46	43	41	94	31
45	56	65	17	45	41	43	94	32
46	62	63	16	46	43	42	95	31
45	63	61	16	45	41	40	96	31
..	..	..	..	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	..
America, South	2016	44	40	47	73	36	25	..
	2017	42	37	46	67	37	18	29
	2018	41	36	46	67	36	21	60
	2019	40	35	44	73	39	21	57
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
44	43	49	10	44	39	47	73	35
42	42	44	11	42	36	46	67	34
42	42	45	12	41	34	46	67	33
42	43	46	14	40	33	44	73	35
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	..
Asia	2016	42	47	36	48	18	11	57
	2017	43	49	36	52	19	11	61
	2018	43	49	36	56	22	12	32
	2019	42	48	38	63	22	13	33
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
39	43	44	18	42	48	36	48	17
45	51	39	18	43	49	36	52	17
41	48	21	16	43	49	36	56	18
40	46	20	16	42	49	38	63	18
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

Total	Autoproducers			Main activity producers				
	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			Total	Main activity producers				
	Combustible fuels	Hydro	Other		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	..
Europe	2016	40	40	34	78	23	12	69
	2017	39	41	31	78	25	12	67
	2018	39	39	34	78	24	12	64
	2019	38	39	32	78	26	12	65
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	..	..	..
36	43	35	13	40	40	34	78	20
36	43	33	13	40	41	31	78	21
36	43	35	14	39	39	34	78	21
35	44	35	13	38	38	32	78	21
..	..	..	..	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
27	45	39	11	48	53	35	..	40
30	52	41	13	48	54	35	..	38
31	52	25	15	47	53	35	..	35
31	53	33	16	45	53	34	..	29

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	..

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