



United Nations Statistics Division

Introduction to Energy Statistics

Leonardo Rocha Souza

International Workshop on Energy Statistics

23-25 May 2016

Beijing, China



<http://unstats.un.org/unsd/energy>

Overview

- Importance of Energy Statistics
- Context
 - Brief overview of historic documents
 - Oslo Group & InterEnerStat
 - IRES, ESCM and SIEC: definitions, harmonisation and country practices
- Energy statistics and indicators in the scope of the 2030 Agenda for Sustainable Development, SDGs
- Final remarks

Importance of energy stats

- Energy is fundamental for socio-economic development.
- Availability/access to energy is essential to poverty reduction
 - And improvements in the standards of living.
- As a result, there is a constantly increasing demand for energy
- Concerns about sustainability & reliability of current production and consumption patterns
 - And the impact of the use of fossil fuels on the environment.
- Taking into account these circumstances, quality energy statistics is of paramount importance
 - So that countries can design effective energy policies toward sustainable development.

Context

- Availability of high-quality energy statistics has always been a matter of concern for the statistical community.
- The United Nations Statistical Commission (UNSC) has discussed issues relevant to energy statistics since its inception (as part of economic statistics).
- Since the 1950's UNSD has been maintaining a database on energy statistics (data from 1950 to latest year available).
 - Accessible from the UNdata Portal (data.un.org/Explorer.aspx?d=EDATA)
- And publishing the Energy Statistics Yearbook
 - The 2013 Edition was the 57th edition
 - First Edition (1952) was called “World Energy Supplies in selected years, 1929-1950”

Statistics

Motor Gasoline Search glossaries

Source: Energy Statistics Database | United Nations

Download Export this page

Select filters:

Country or Area (229)

- Afghanistan
- Albania
- Algeria
- Andorra
- Angola
- Anquilla

Year (24)

- 2013
- 2012
- 2011
- 2010
- 2009
- 2008

More >>

Apply Filters

Country or Area	
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo
Afghanistan	Mo

2013

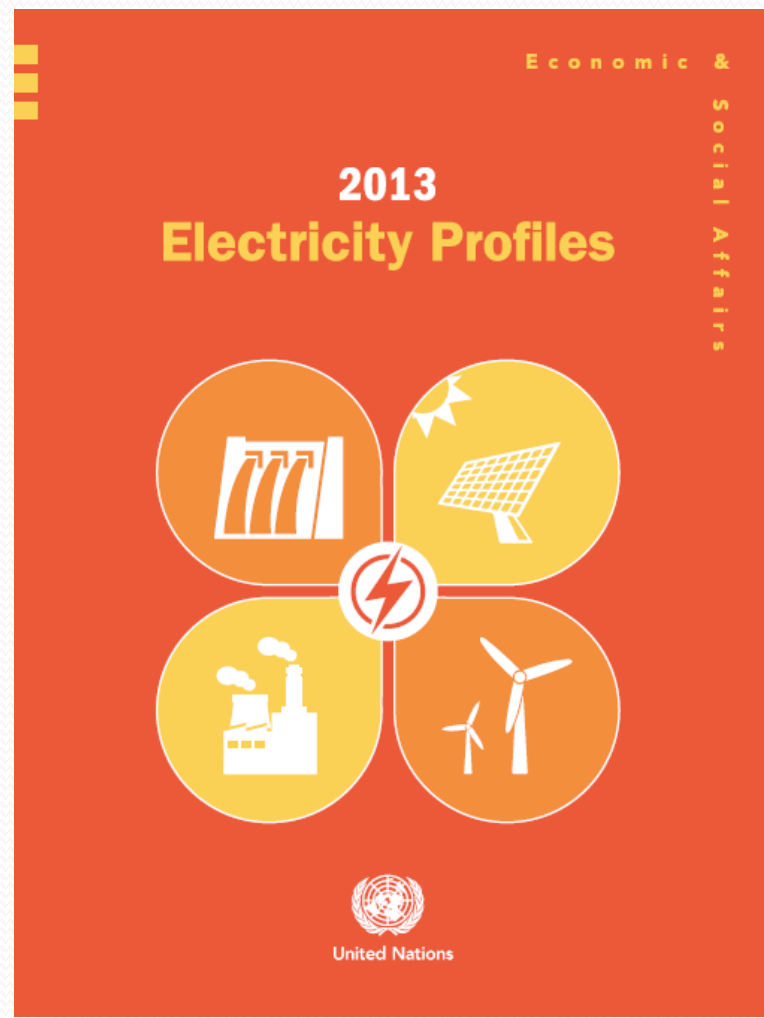
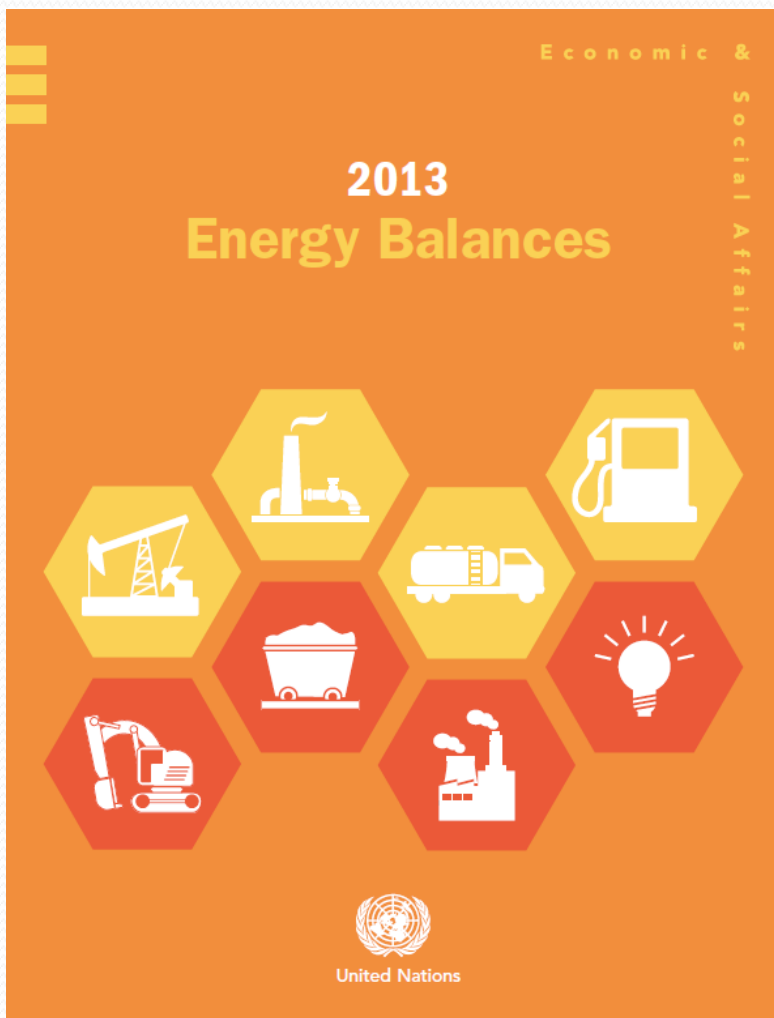
Energy Statistics Yearbook



United Nations

Context (cont.)

- In the aftermath of early 1970s energy crisis, UNSC put energy statistics on its agenda as a separate item
 - and requested a special report on energy statistics to be prepared and presented to it for discussion.
- One of the outcomes was that UNSC agreed on the use of energy balances as the key instrument
 - in the coordination of work on energy statistics and
 - the provision of data in a suitable form for understanding and analysing the role of energy in the economy.
 - Since then UNSD has been publishing Energy Balances (and Electricity Profiles)



Context (cont.)

- The next few decades saw developments in energy statistics,
 - with the publication of guidance documents, and
 - the incorporation of novel energy products and technologies.
- Such guidance documents were rich in information and influenced country methodologies,
 - but were descriptive in nature, not focusing on harmonisation.
- These documents covered important topics but needed updates to reflect energy market developments.
- Additionally, references to other international classifications (ISIC, CPC, HS) were mostly absent.

Oslo Group & InterEnerStat

In this context, in 2005, UNSC recognised need for further development of energy statistics guidance and set up:

- Oslo City Group on Energy Statistics (Oslo Group)
 - to “contribute to the development of improved methods and international standards for national official energy statistics”.
- Intersecretariat Working Group on Energy Statistics (InterEnerStat).
 - to harmonise differing definitions across organisations as close as possible

Oslo Group & InterEnerStat

- In the Oslo Group the main actors are the countries, working under UNSD supervision
- InterEnerStat is a group of over 20 international organisations working in the field of energy statistics, headed by the IEA
 - It published a harmonised list of energy products and flows in 2010.

IRES

- Building on the harmonisation work achieved by InterEnerStat, the Oslo Group helped draft the *International Recommendations for Energy Statistics* (IRES)
- With the main goal of providing standards and guidance to national compilers covering:
 - relevant concepts and definitions,
 - classifications,
 - data sources,
 - data compilation methods,
 - institutional arrangements,
 - data quality assurance,
 - metadata and dissemination policies.
- IRES in its draft form was endorsed by UNSC in 2011.

IRES, SIEC and ESCM

- IRES contains the Standard International Energy product Classification (SIEC)
 - first definitive standard classification for energy products.
 - built on a set of internationally harmonised definitions of energy products
 - developed by InterEnerStat as mandated by the UNSC.
- As a practical companion to the more theoretical IRES, the *Energy Statistics Compilers Manual* (ESCM), bountiful with country examples, was drafted and is in the process of being finalized.

Energy statistics and the 2030 Agenda for Sustainable Development, SDGs

- IRES's endorsement was a timely one, since one of the major outcomes from the Rio+20 Conference was the development of a set of Sustainable Development Goals (SDGs) in which SDG7 is a dedicated stand-alone SDG on energy
- SDG7 has three major targets and two additional targets representing means of implementation.
- The set of SDGs is an essential element of the 2030 Agenda for Sustainable Development to be implemented for the 2016-2030 period, including a total of 17 SDGs, 169 targets and 241 indicators.

SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

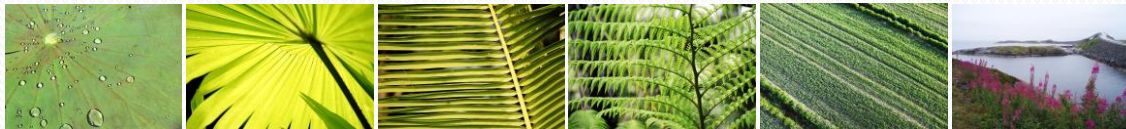
Target	Indicator
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	7.1.1 Proportion of population with access to electricity
	7.1.2 Proportion of population with primary reliance on clean fuels and technology
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption
7.3 By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP
7.a By 2030, enhance international cooperation... (means of implementation)	7.a.1 Mobilized amount of US\$...
7.b By 2030, expand infrastructure and upgrade technology... (means of implementation)	7.b.1 Investments in energy efficiency ...

Final remarks

- Countries must first identify policy priorities and goals
 - then strengthen their national statistical systems
 - in order to provide relevant indicators to inform such priorities and goals
- Of course, SDG indicators will not be enough for national purposes
 - As a result, countries are encouraged to complement international sets of indicators
 - with other indicators relevant to national circumstances



United Nations Statistics Division



Thank you.

<http://unstats.un.org/unsd/energy/>