

## **State of debate note on the energy accounts**

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The purpose of this state of debate note on energy accounts is to outline where we are with respect to energy accounts in terms of compilation guides and training material, activities of countries, policy uses, data demand and outstanding technical issues.

### **1. Existing guidance on energy accounts**

#### **SEEA-CF and SEEA-Energy**

SEEA-Energy, a SEEA 'sub-system', is under development to provide compilers and analysts with agreed concepts, definitions, classifications, tables, and accounts for energy and energy-related air emission accounts. SEEA-Energy elaborates and expands the guidance on accounting included in the International Recommendations for Energy Statistics (IRES) and is fully coherent with the broader SEEA.

#### **International Recommendations for Energy Statistics (IRES)**

provides a basis for high quality energy statistics by recommending data items to be collected and their concepts and definitions, and classifications for energy statistics and balances. Basic energy statistics collected using the recommendations of IRES can be used as a data source for the compilation of the physical supply and use tables in SEEA-Energy.

#### **ESCM**

The Energy Statistics Compilers Manual (ESCM) is an integral part of the implementation process of the International Recommendations for Energy Statistics (IRES) and the physical flow part of System of Environmental-Economic Accounting for Energy (SEEA-Energy). While IRES provides internationally agreed recommendations, the ESCM is expected to provide practical guidance to assist countries in the implementation of IRES. As such, the ESCM will cover the conceptual framework, the institutional arrangements and the statistical production process for energy statistics.

Chapter 6 will provide practical guidance on the compilation of the energy accounts of the System of Environmental-Economic Accounting for Energy (SEEA-E) based on the data items in chapter 4. This chapter will also describe the use of secondary sources, such as the energy balances. This chapter is also intended to provide guidance on the compilation of bridge tables between energy balances and energy accounts in order to reconcile and understand the differences between the two tabulations of energy statistics.

#### **Eurostat manual for Physical energy flow accounts**

In January 2012 a draft *Manual for Physical Energy Flow Accounts (PEFA)* was provided by Eurostat. The manual is not quit finished, although it is expected that conceptually there will not be much

changes. It is expected that the manual will be finalised once the PEFA builder is finished and be made available on the Eurostat website (probably 2014).

Important is the development by Eurostat of the so called PEFA builder. This will allow countries 'relatively easy' to compile energy flow accounts on the basis of the IEA questionnaires and some additional national data sources.

### **Training material**

A European Statistical Training Programme (ESTP) course on energy flow accounts took place in Vienna in February 2012. Training material is available on the European Commission's Communication and Information Resource Centre for Administrations, Businesses and Citizens (CIRCABC) at :  
[https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp?FormPrincipal:\\_idcl=FormPrincipal:\\_id3&FormPrincipal\\_SUBMIT=1&id=e7cfbc99-86c0-4355-9898-67b67f7cb8d3&javax.faces.ViewState=rO0ABXVyABNbTGphdmEubGFuZy5PYmplY3Q7kM5YnxBzKWwCAAB4cAAAAAN0AAE2cHQAKy9qc3AvZXh0ZW5zaW9uL3dhaS9uYXZpZ2F0aW9uL2NvbnRhaW51ci5qc3A](https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp?FormPrincipal:_idcl=FormPrincipal:_id3&FormPrincipal_SUBMIT=1&id=e7cfbc99-86c0-4355-9898-67b67f7cb8d3&javax.faces.ViewState=rO0ABXVyABNbTGphdmEubGFuZy5PYmplY3Q7kM5YnxBzKWwCAAB4cAAAAAN0AAE2cHQAKy9qc3AvZXh0ZW5zaW9uL3dhaS9uYXZpZ2F0aW9uL2NvbnRhaW51ci5qc3A)

### **2. Current work in countries**

Countries regularly producing energy flow accounts include Australia, Canada, Denmark, Germany, the Netherlands, Norway, the United Kingdom.

Countries regularly producing energy asset accounts include Statistics Canada, Denmark (?), United Kingdom and the Netherlands

Several countries have undertaken studies and pilot work in the area of energy flow accounts. A set of over 14 pilot studies undertaken within the EU can be found here: [http://epp.eurostat.ec.europa.eu/portal/page/portal/environmental\\_accounts/documents/Catalogue\\_of\\_pilot\\_study\\_reports.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/environmental_accounts/documents/Catalogue_of_pilot_study_reports.pdf).

### **3. Policy uses and data demands**

[From SEEA-energy] : SEEA-Energy informs policy decisions related to the supply and use of energy. First, summary information in SEEA-Energy can provide broad guidance on issues and areas of concern that should be the focus of decision makers and provide indicators of progress towards policy objectives. Second, the detailed information in SEEA-Energy can support a richer understanding of the issues including potentially identifying the key drivers of change. Third, the SEEA-Energy framework supports the development of models and scenarios that can be used to assess the impact of possible policies both within a country and between countries.

Key policy areas that can be served with data from the energy accounts:

- Energy saving (efficient energy use)
- Renewable energy production
- Energy security (dependency on imports)
- Natural capital accounting

The European Commission has proposed to the European Council and Parliament to amend the existing Regulation EU 691/2011 on European environmental economic accounts by adding 3 more modules, including one on energy flow accounting. That module would require Member States to provide data on the supply and use of energy for natural inputs, energy products and energy residuals in a breakdown by 64 industry groupings. It is expected that EU countries in 2017 will have to report for the first time according to the legal base for the years 2015 and 2014.

*Carbon and energy productivity* is on the list of OECD green growth indicators. Also Natural resource accounts (including energy) is on the list of key indicators for green growth.

#### **4. Outstanding issues**

- Some conceptual issues: E.g. how to record the flow of natural gas? Is it booked directly from the extracting industry to the end user (because no transformation into another product happens) or via the distributor?
- In Europe, we have to find a compromise on the level of detail for the PEFA-columns (industries) and PEFA-rows (natural inputs, products, residuals).
- What are the key indicators to be derived from the energy accounts ?
- Core tables. The OECD core tables have natural resource stocks which may also be used for energy. THE PEFA tables developed by Eurostat are a useful starting point for developing core tables for energy flow accounts.

#### **5. References and links**