Statistisk sentralbyrå
Statistics Norway

Report of the first meeting of the Oslo Group on Energy Statistics

Oslo, 6-8 February 2006.

Background

The Statistical Commission at its 36th session in March 2005 reviewed the programme of energy statistics and recommended that UNSD convene an Ad-hoc expert group meeting to identify major tasks and means of implementation for the development of energy statistics. The Ad-hoc group, which was hosted by the United Nations Statistics Division in May 2005, recommended among others, the establishment of a city group on energy statistics where countries could discuss methodological issues, learn from good practices and to contribute to the methodological development of energy statistics through harmonization with which the energy statistics produced on international level could also be improved.

Five international organizations and 18 countries were represented at the meeting. The agenda proposed ten sessions on different topics.

Session 1. Opening and introduction

Mr. Øystein Olsen, Director General, Statistics Norway opened the meeting. State Secretary Anita Utseth (Norwegian Ministry of Petroleum and Energy) gave an overview of the importance of energy statistics and how energy analyses could support policy decisions. Among other things, she stressed the importance of harmonized data across the world for easy comparison of the main statistical variables. Olav Ljones, Assistant Director General, Statistics Norway, chaired the first part of the meeting, and presented the background and objective of the meeting.

Session 2. Identification of user needs (Chairperson: Olav Ljones)

This session focused on user needs for energy statistics. It is important to have a good communication between users and producers of energy statistics to ensure high quality and relevant statistics. Important users of energy statistics gave an overview of their use of energy statistics for different purposes, and their recommendations and wishes for improvements. The users that were represented in this session were the Norwegian Pollution Control Authority, Cicero (Institute for climatic research), Norwegian Water Resources and Energy Directorate, IAEA, IMF and the Research Department, Statistics Norway.
The following issues were emphasized by the participants at the session:

- ✓ Energy consumption data coupled with technology and purpose with the use. This is especially useful for estimations of emissions.
- ✓ Improved statistics for biofuels / oil consumption in households, and energy consumption in the service sector. Statistics for energy from heat pumps.
- ✓ Better knowledge about heating and cooling equipment
- ✓ Better energy statistics for non-OECD countries (training of these countries)
- ✓ Harmonized definitions for fossil fuel reserves (methods varies between countries)
- ✓ Harmonization, and more focus on the link between energy accounts and national accounts.

Session 2. Scope of official energy statistics (Chairperson: Olav Ljones)

The number of institutions involved in collection and dissemination of energy statistics varies between countries. The institutional framework for data collection and processing can affect the quality of the statistics. Some countries with different systems described advantages and challenges with their system. These countries were Russia, Germany (decentralized system) and Norway (centralized system). The distinction between official and non-official statistics is not always clear, especially not when several institutions are involved in the production of statistics. The expression "semi-official" statistics was launched during the session, and covers statistics that not really is official, but that is the best or only statistics available in the field. A recommendation from the session was to improve metadata and by this make a distinction between official and non-official statistics, because this would make it easier for the users to evaluate the quality.

Session 4 Coordination with the Inter Secretariat group (Chairperson: Olav Ljones)

In addition to the city group for the countries, an Intersecretariat Working Group was proposed by the Ad hoc Expert Group Meeting in May 2005. The objective for this group is to coordinate the work in international organizations that are involved in collection and dissemination of energy statistics. IEA hosted an International Energy Statistics meeting in November 2005. Jean-Yves Garnier of IEA gave information about the meeting that was used as a preparatory meeting for the Intersecretariat Working group on energy statistics.

Session 5. National practices. Identification of best practices and problems with methodology and data collection (Chairperson: Mr. Robert Pagnutti, Canada)

Six countries, Ireland, USA, Poland, South Africa and Norway, presented their energy statistics, compilation practices and challenges. Norway focused on gaps and inconsistencies in oil and gas statistics, based on a summary of a Norwegian report to the Statistical Commission 2006. USA stressed the importance of good practices for survey design, and gave some examples of successful data collection practices in the Energy Information Administration in USA. Data collection is the basis for statistics, and the compilation of good practices for survey design is a candidate for being included on a web site on best practices for energy statistics.

Session 6 Selected methodological and quality problems in energy statistics (Chairperson: Mr. Johan Van Vyk, South Africa)

Several problematic issues in energy statistics were discussed at this session. Torun Revdal, Norwegian Water and Resources and Energy Directorate, opened the session by presenting inconsistency problems in calculations of electricity losses in Norwegian electricity statistics. Karoly Kovacs, the United Nations, gave an overview of statistics for new and renewable energy statistics. Policy targets for promoting the use of renewable energy sources exist in many countries, but compilation of comparable international statistics for renewable energy is extremely difficult. This is among other things due to data collection problems and different product definitions. Wolfgang Bitterman, Austria, continued the discussion on renewables by presenting experiences on statistics for biomass in Austria.
Some of the recommendations from this session were the following:

- ✓ Harmonization of renewable energy definitions.
- ✓ Collecting best practices in designing and executing data collection of renewables.
- ✓ Methods for integrating new energy sources in the energy statistics.

Session 7. Important energy statistics systems, and needs for harmonization

Per Blystad, the Norwegian Petroleum Directorate, presented their work on mineral resources, which is harmonized according to the classifications United Nation Framework for Energy and Mineral Resources. He stressed that one common global code for energy and mineral resources are a clear advantage, among other things because global markets need global standards. This point was also mentioned by one of the users in session two.

Jean-Yves Garnier presented the Joint Oil Data Initiative (JODI). This is a framework that includes the most updated monthly oil statistics of crude oil and several petroleum products for more than 90 countries and it's a very useful tool for both the consumers and the producers of crude oil and petroleum products. The joint web site was opened to the public in November 2005 where data is freely available.

Karoly Kovacs presented a summary of a survey from eight countries in different continents. He concluded that countries are using international standards and they consider these manuals as very useful tools for their compilation practices even if they diverge from them. Most countries publish energy balance estimates regularly. However further (more detailed) studies should be carried out on country practices.

The countries in the survey were asked to give proposals for improvements, and among other things they recommended to update / develop the UN-manuals, harmonization of the international organizations questionnaires and to make concepts and compilation methods more unified. They also proposed to prepare an energy price manual, focusing on data collection for prices and taxes.

Mr. Kovacs continued with a presentation on classifications on energy products, and described how definitions of some energy sources vary in different classification systems, like HS, CPC and the energy manuals of IEA/Eurostat and UNSD. Its necessary to consider whether these energy product definitions need to be revised, or if correspondence tables should be produced, in order to harmonize and build bridges between the definitions. For example, there is still not agreement about the definition of crude oil, even if this is the most traded commodity in the world, and changes in the oil marked affects the world economy.

Karen Tréanton, IEA ended the session by presenting how differences in methods etc. used in countries and organizations create problems in the work with international energy statistics. Some of the elements that leads to confusion is different methods for treating non-energy use and blast furnaces, conversion factors and classifications / fuel definitions.

Session 8. Work plan for the Oslo group. (Chairperson Hans Pouwelse The Netherlands)

This session was an important part of the meeting, as plans for further work had to be decided. Mr. Ljones referred to the objectives for the group and presented some quality dimensions for energy statistics that should be followed, like international comparable standards, documentation of national practices, best scientific methods, good user contacts and contact between national agencies. Mr. Ljones also asked if there was necessary to compile and present both energy accounts and energy balances, as some countries do. These are two similar types of energy balances that differ in some principles, and can thereby lead to confusion for the users.

Ann Christin Bøeng made a short presentation of elements in energy statistics that make it difficult to compare the countries, and also on energy statistics produced by different

organizations. This is due - among other things - to different definitions / composition of energy products, different methods for treating energy producing sectors, conversion factors and units used in the presentation of energy balance. Some of the consequences are that users' of energy statistics are confused, and that analyses would depend on the international source used for making the analysis.

Jean-Yves Garnier said that claims for confidentiality caused by increased market liberalization creates a lot of problems for statisticians. Market liberalization and confidentiality problems are a big challenge for many countries, and improved methods for dealing with this could be a topic for further discussion in the Oslo group.

Johan Van Wyk mentioned that the existing manuals from 1982 were heavy to read, and also not very user friendly. If statisticians are going to use the manuals, the format has to be improved and made more easily available. IEA has made a manual for energy statistics, and the format is pleasant, but as Ms Mantcheva from IMF commented, this is a guidance for how to complete the questionnaires to IEA / UNECE / Eurostat, and it is not a real manual with recommended international standard concepts, principles, classifications and definitions to be used in the countries energy statistics.

The results from the discussion can be interpreted as if there is a need for a more updated and modern manual for energy statistics. Some of the problems are a result of unclear or unavailable definitions and standards for compiling the energy balance and uncertainty about data collection methods. Standards, conversion factors and best scientific methods should be more easily available for the countries. It’s also a challenge for the international organizations to convert national differences in energy statistics to international comparable energy balances, and they would also benefit from more standardized national energy statistics.

It was suggested that an international web site should be established for best practices. The group was advised that a web site for the Oslo Group has already been hosted by Statistics Norway (http://www.ssb.no/ocg)

Olav Ljones encouraged the participants in the Oslo group to be active and continue the discussion and work towards to draft issue papers via electronic discussion groups up to the next meeting of the Group. India offered to host the next meeting in the Oslo group.

Session 9. How to measure changes in energy efficiency. (Chairperson: Tara Billingsley, USA)

Three excellent presentations about energy indicators were held in this session. Peter Dal, Denmark and Chris Bryant, UK presented methods and results from their work on coupling of energy consumption and economic figures, while Roberto Lopez, Mexico presented their work with a set for indicators for sustainable work in Mexico (the ISED-project). Energy indicators are a very useful tool for monitoring status, trends and effectiveness of policies. Sharing of good methods for such indicators could be useful for the countries.

Session 10. Methods for improving consistency in statistics on a national level, and reducing response burden (Chairperson: Tara Billingsley, USA)

Canada has established a joint data collection system for collecting data for energy use and production and greenhouse gases in government departments, and Bob Pagnutti presented a

system, that both improves the coherence in statistics between different institutions and reduces response burden.

The next two presentations focused on the need for coordinating environmental data and economic data. Julie Hass presented results from NAMEA that is a project where emission data and national accounts are coupled with the purpose to connect environmental consequences to the economic activity. Different classifications can make it difficult to compare and integrate energy statistics with other statistical systems. Knut Sørensen, Norway, gave relevant examples from the Norwegian system and underlined the importance of building bridges between the different systems. As a conclusion, the same classifications should be used in environmental data and national accounts, and the harmonization in energy statistics could be done parallel with harmonization in national accounts.

Hans Pouwelse, the Netherlands, described a new system for collecting energy data in the Netherlands. Instead of collecting data from users of energy they have started to collect data from the energy companies on a basis of a legal act that came into force in 2004.

Conclusions and further work

The discussion in session 10 indicated that there is a need for updated international standards for energy statistics as well as for user-friendly energy statistics manuals. Participants offered to contribute to the revision of the existing UN handbooks by drafting selected chapters and modules. A collection of best practices on the Oslo group web site was also recommended.

There is a need for coordinating the work in the Oslo group and Inter Secretariat Group on energy statistics because both groups will deal with recommendations and harmonization of principles, methods and energy product definitions.

In order to improve energy statistics it can be necessary to increase the resources in this field, and some countries also needs to build a legal base for data collection. Having a good, mutual communication with policy makers and administrators in the countries, and making efforts to increase status and priority of this important area, is therefore recommended.

The Oslo group will focus on working towards to provide drafts before the second meeting of the Group on the following topics:

- Review of the definitions and make proposal for common definitions for energy products with special focus on the new and renewable energy types;
- Make proposals and issue papers for updating the UN manual, Energy statistics: Definitions, unit of measure and conversion factors (1986);
- Collect country practices and use them for the elaboration of the definitions/manual;
- Collect best practices of energy statistics, energy balance compilation.

The group will work through electronic discussion forums, in addition to traditional meetings, where the drafts and all the correspondence are to be available for the participants of the discussion forum.

The proposed topics will be circulated between the members of the Oslo Group for the purpose of inviting countries to participate in the forum (with some concrete proposals and offers) and also to seek final commitments to contribute to the suggested topics.

India offered to host the next meeting of the Oslo group is November / December 2006.