



UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION

Expert Group on Energy Statistics
Second meeting
New York, 2-5 November 2010

Energy Statistics Compilers Manual

UNSD Report

United Nations, New York
October 2010

Energy Statistics Compilers Manual

The *Energy Statistics Compilers Manual* (ESCM) was considered an integral part of the preparation process of the *International Recommendations for Energy Statistics* (IRES): while IRES provides recommendations on basic concepts, definitions and classifications as well as data sources, data compilation strategies, energy balances, data quality and statistical dissemination, the ESCM is expected to provide additional guidance to assist countries in the implementation of IRES.

A draft outline of the Energy Statistics Compilers Manual has been discussed by the Oslo Group at its 4th meeting in 2009 together with a timeline for its preparation, which envisages the review of provisional drafts of the ESCM during the sixth Oslo Group Meeting (May 2011) and seventh Oslo Group Meeting (2012). It is expected that the ESCM will be finalized in 2012.

This report includes the annotated outline of the ESCM that was discussed at the fourth Oslo Group Meeting. The Expert Group on Energy Statistics is invited to: (i) provide comments on this outline; (ii) indicate priorities; and (iii) identify additional issues that should be covered by such a manual.

Annotated outline of the Energy Statistics Compilers Manual

I. Purpose

The *Energy Statistics Compilers Manual* (ESCM) is intended to assist energy statistics compilers in the implementation of the *International Recommendations for Energy Statistics* (IRES), the forthcoming *System of Environmental-Economic Accounting for Energy* (SEEA-E), and with other uses within the context of national accounts. The focus of the manual is on compilation and reporting of energy statistics both nationally and internationally. It will contain descriptions of best practices and additional technical information relevant to all tasks that energy statistics managers and compilers normally perform – from the legal and institutional settings and data collection from various sources to data compilation, assessment of quality and dissemination. ESCM is planned as a forward looking document with respect to the development and implementation of the integrated approach to compilation of basic statistics enabling countries to collect data once and use them many times for various purposes.

The practice on compilation of energy statistics is constantly evolving, therefore, future updates of the ESCM are envisaged in electronic format and will be periodically updated to reflect the new methodological developments, keep the compilers abreast with the country practices and channel to them any new technical information.

II. Content of the ESCM

Chapter 1 Conceptual framework

The purpose of this chapter is to present to the compiler a brief summary of the conceptual framework for energy statistics established by IRES and to explain the relationships of energy statistics with economic, environment and other relevant statistics.

Chapter 2 Legal foundations and institutional arrangements

This chapter will provide details on the existing national systems of energy statistics including the legal framework and appropriate institutional arrangements. The advantages and disadvantages of various systems will be discussed and best practices will be identified. Ways to improve the national systems of energy statistics will be elaborated based on principles guiding effective institutional arrangements promoted by IRES. The chapter will contain examples of the national systems of energy statistics of several countries and describe their plans on how to move forward.

Chapter 3 Data compilation – general issues

Starting with the recommendations on data sources and data compilation strategies provided in IRES this chapter will elaborate technical details and provide examples of practices in the various stages of the data compilation process. This will include further discussion and guidance on what kinds of data sources can be used and how to make improvements in this area. The issue of how to better reflect energy statistics requirements in economic censuses, in regular programmes of enterprise/establishment surveys,

in household surveys and mixed household-enterprise surveys will be discussed. A separate section is envisaged for the description of country practices in the designing and organization of statistical surveys dedicated to collection of energy data. The issue of frequency of surveys will be illustrated by country examples. The methods used in data validation and editing, imputation and estimation and their specificity in energy statistics will be described and necessary examples provided. The Chapter will also contain examples of an integrated approach to energy statistics compilation in several countries. Country practices in the use of administrative data sources and merging such data with data received via statistical surveys will be described.

This chapter may be too long and might be broken into several chapters or some material might be moved to annexes of the ESCM.

Chapter 4 Compilation of data on stocks and flows of selected energy products

This Chapter is intended to provide information and guidance on issues specific to data compilation on stocks and flows of particular energy products.

Chapter 5 Compilation of data on activities of the energy sector

The definition of the scope of the energy sector and the recommendations on the data items about its activities will be the basis for this chapter. The chapter will contain guidance on how to compile such data items from various sources including reuse of previously compiled data (e.g., as a part of general economic statistics) and modification of specialized energy statistics surveys.

Chapter 6 Compilation of energy balances

This chapter will provide details on country practices in the compilation of various types of energy balances focusing on the reconciliation of data obtained from different sources and other technical issues. Examples of energy balances compiled by several countries will be included. Also, the balance formats used by UNSD, IEA and Eurostat will be presented together with a correspondence between them and the rationale for use of these formats.

Chapter 7 Compilation of energy accounts

Details on the structure of energy accounts and the required data will be given. Guidance on how to compile the energy accounts from the basic energy statistics will be provided as well as an explanation of what additional data estimations might be needed (and how to generate them). The practice of compilation and use of the bridge tables between energy balances and energy accounts will be described. Examples of energy accounts and bridge tables compiled by selected countries will be provided.

Chapter 8 Compilation of energy indicators

This chapter will provide details on country practices in the compilation of various energy indicators including energy efficiency indicators and indicators for sustainable energy development.

Chapter 9 Energy statistics and calculation of Greenhouse gas emission inventories

This chapter will provide details on the calculation of GHG emission inventories using energy statistics and promote best practices in this area.

Chapter 10 Compilation of metadata

Taking the IRES recommendations on metadata as the starting point the chapter will provide details on country practices in the compilation of various elements of metadata.

Chapter 11 Quality assurance programmes

The application of quality assurance programmes in energy statistics will be explained and examples of practices be given.

Chapter 12 Data and metadata dissemination

The chapter is intended to describe country practices in the organization of data and metadata dissemination. The use of SDMX for international reporting will be discussed.

Bibliography

Annexes

Index