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Report on the results of the second stage of the worldwide consultation on IRES

UNSD report

New York, October 2010

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1. Introduction

The *International Recommendations for Energy Statistics* (IRES) are being developed in accordance with the decisions of the United Nations Statistical Commission at its 36th and 37th sessions which, inter alia, recognized the significance of energy statistics, recommended their development as part of official statistics and called for the revision and further development of the relevant international standards (see the Reports on the thirty-sixth session[1] and on the thirty-seventh session[2] of the Commission). The United Nations Statistical Commission at its 40th session (24-27 February 2009) endorsed the strategy of the United Nations Statistics Division (UNSD) to prepare the international recommendations for energy statistics, and suggested that the preparation of the recommendations be considered a matter of high priority[3].

The key element of the revision strategy is a worldwide consultation with national and international agencies active in the collection and compilation of energy statistics. The consultation has been conducted in two stages: (i) initial consultation on the scope and content of the future recommendations (May - June 2008) and (ii) consultation on the full text of the provisional draft of the revised recommendations (July – August 2010).

In addition, given the importance of the development of a standard international classification of energy products as part of the IRES preparation, UNSD consulted with the UN Expert Group on International Economic and Social Classifications (referred to as Expert Group on Classifications). In particular, the Expert Group on Classifications was informed of the development of the classification during its meeting in New York, 1-4 September 2009 and in July 2010 a formal consultation took place on chapter 3 of the provisional draft of IRES. A summary of the comments received by the Expert Group on Classifications is available in a separate document (ESA/STAT/AC.221/7) and thus it is not covered in this report.

This report presents the results of the second round of worldwide consultation on the provisional draft of IRES which was announced in the letter sent to countries and international organizations on 2 July 2010. To facilitate the review of the provisional draft of IRES, a questionnaire was prepared and made available on the UNSD website[4]. A total of 95 responses were received: 83 from countries and 12 from international/regional organizations. Of the responses from countries 63 were from National Statistical Offices and 21 from other institutions such as Ministry/Institutes/Agencies active in energy statistics (a number of these responses were coordinated with the National Statistical Office). The responses contained about 700 (!) individual and often very detailed comments on specific issues.

UNSD is very grateful to all respondents. The comments provide an excellent basis for the review of the provisional draft by UNSD and the Expert Group on Energy Statistics which is assisting UNSD in the finalization of the draft before its submission to the UN Statistical Commission for adoption. In addition, the comments will provide an important input for the preparation of the *Energy Statistics Compilers Manual* (ESCM). This report will be discussed at the second meeting of the United Nations Expert Group on Energy Statistics which takes place from 3 to 6 November 2010 in New York.

Section 2 of this report contains a brief summary of the quantitative results; Section3 provides a summary of the general comments while Section 4 contains a summary of the comments provided by the

[1] See *Official Records of the Economic and Social Council*, 2005, Supplement No. 4 (E/2005/24), chap. III, para. 7.
[2] See *Official Records of the Economic and Social Council*, 2006, Supplement No. 4 (E/2006/24), chap. I, para. 3, item 37/108.
[3] See *Official Records of the Economic and Social Council*, 2009, Supplement No. 4 (E/2009/24), chap. I, para. 2, item 40/103 (b).
[4] The Questionnaire is available online at http://unstats.un.org/unsd/energy/ires/consultation.htm

respondents with respect to specific chapters. The list of respondents to the questionnaire can be found at the end of this report.

2. Summary of the responses

Overall there was a very strong support to the provisional draft of IRES. The quantitative results of the consultation and the comments of the respondents show that there is an overall agreement and support for the content of the individual chapters and annexes. Table 1 shows the summary statistics by questions: For most of the chapters the rate of agreement is well above 90 per cent ranging from 80 per cent (questions 11.1 and 11.2) to 99 per cent (question 1.1). For ease of reference the list of questions asked during the worldwide consultation are presented in Box 1. In addition, respondents were encouraged to provide any other comments they deemed useful to the review.

Box 1: Questions

Question 1.1: Do you overall agree with the content of this chapter?
Question 1.2: Do you agree with the purpose of IRES as described in section B of this chapter?
Question 2.1: Do you overall agree with the content of this chapter?
Question 2.2: Do you agree with the stated scope of energy statistics in IRES?
Question 2.3: Do you overall agree with the description of the basic concepts and boundary issues?
Question 2.4: Do you agree with the recommendations contained in chapter 2?
Question 3.1: Do you overall agree with the content of this chapter?
Question 3.2: Do you overall agree with the stated purpose and scope of SIEC?
Question 3.3: Do you overall agree with the structure of SIEC?
Question 3.4: Do you overall agree with the definitions of energy products provided in section D of the chapter?
Question 4.1: Do you overall agree with the contents of this chapter?
Question 4.2: Do you overall agree with the recommendations provided in this chapter?
Question 5.1: Do you overall agree with the contents of this chapter?
Question 5.2: Do you agree with the description of the main energy flows?
Question 5.3: Do you agree with the description of the energy industries?
Question 5.4: Do you overall agree with the description of the energy consumers and energy consumption?
Question 6.1: Do you overall agree with the contents of this chapter?
Question 6.2: Do you agree with the description of statistical units and related recommendations?
Question 6.3: Do you overall agree with the list of data items provided in this chapter?
Question 7.1: Do you overall agree with the content of this chapter and its recommendations?
Question 7.2: Do you overall agree with the recommendations on institutional arrangements as provided in section B of the chapter?
Question 8.1: Do you overall agree with the content of this chapter and its recommendations?
Question 8.2: Do you overall agree with the templates of energy balances presented in tables 8.1 and 8.2?
Question 9.1: Do you overall agree with the content of this chapter and its recommendations?
Question 9.2: Do you overall agree with the set of quality indicators presented in Table 9.2?
Question 9.4: Do you overall agree with the template for accompanying metadata presented in para. 9.27?
Question 10.1: Do you overall agree with the content of this chapter and its recommendations?
Question 10.2: Do you overall agree with the recommendations on handling confidentiality issues and the application of confidentiality rules presented in this chapter?
Question 10.3: Do you overall agree with the recommendations on reference periods and dissemination timetables presented in this chapter?
Question 11.1: Do you overall agree with the content of this chapter?
Question 11.2: Do you overall agree that the differences in concepts, terminology and presentation between energy balances and the energy accounts are made sufficiently clear.
Question 12.1: Do you agree that the proposed Annexes are useful?
Question 12.2: Do you overall agree with the lists of primary/secondary and renewable/non-renewable energy products presented in Annex A?
Question 12.3: Do you overall agree with the recommendations on commodity balances provided in Annex D?

Table 1: Summary of responses by questions

	Yes (%)	No (%)	No Opinion (%)
Chapter 1			
Q 1.1	92 (99)	0 (0)	1 (1)
Q 1.2	89 (97)	1 (1)	2 (2)
Chapter 2		(0)	(0)
Q. 2.1	87 (95)	2 (2)	3 (3)
Q 2.2	90 (97)	1 (1)	2 (2)
Q 2.3	84 (92)	4 (4)	3 (3)
Q 2.4	84 (92)	2 (2)	5 (5)
Chapter 3			
Q 3.1	84 (92)	4 (4)	3 (3)
Q 3.2	88 (97)	0 (0)	3 (3)
Q 3.3	83 (90)	4 (4)	5 (5)
Q 3.4	80 (89)	4 (4)	6 (7)
Chapter 4			
Q 4.1	84 (91)	4 (4)	4 (4)
Q 4.2	83 (90)	6 (7)	3 (3)
Chapter 5			
Q 5.1	83 (92)	3 (3)	4 (4)
Q 5.2	85 (92)	1 (1)	6 (7)
Q 5.3	80 (90)	4 (4)	5 (6)
Q 5.4	86 (93)	3 (3)	3 (3)
Chapter 6			
Q 6.1	86 (93)	2 (2)	4 (4)
Q 6.2	84 (92)	4 (4)	3 (3)
Q 6.3	80 (89)	4 (4)	6 (7)
Chapter 7			
Q 7.1	86 (96)	0 (0)	4 (4)
Q 7.2	83 (92)	1 (1)	6 (7)
Chapter 8			
Q 8.1	82 (91)	2 (2)	6 (7)
Q 8.2	80 (88)	4 (4)	7 (8)
Chapter 9			
Q 9.1	88 (98)	0 (0)	2 (2)
Q 9.2	84 (92)	2 (2)	5 (5)
Q 9.3	83 (93)	0 (0)	6 (7)
Chapter 10			
Q 10.1	85 (94)	2 (2)	3 (3)
Q 10.2	88 (97)	0 (0)	3 (3)
Q 10.3	80 (91)	5 (6)	3 (3)
Chapter 11			
Q 11.1	72 (80)	4 (4)	14 (16)
Q 11.2	73 (80)	3 (3)	15 (16)
Annexes			
Q 12.1	86 (96)	1 (1)	3 (3)
Q 12.2	85 (94)	2 (2)	3 (3)
Q 12.3	82 (91)	2 (2)	6 (7)

3. Summary of general comments

A total of 57 countries and international organizations provided general comments pertaining to IRES as a whole. Overall the general comments expressed their explicit support for the IRES contents and goals. It was indicated that these recommendations were expected to promote and support the collection of useful, quality, comparable energy data at the international level. Also, some respondents indicated that IRES would be used to improve their own energy statistics programmes. Specific ideas contained within IRES, such as the multipurpose nature of energy statistics, were also emphasized as good and important.

Some respondents noted that the style of the different chapters is not always consistent and suggested to review the style of whole document. Also the presentation of the recommendations (at times at the end of a chapter, other times embedded in the chapter) is not done consistently throughout the chapters.

Some specific comments to improve the current draft were also suggested, in terms of modifications, additions and formatting issues. Specific comments are presented in the relevant chapters.

Regarding future implementation, a number of respondents expressed the need for translation of IRES into other languages, as well as the need for international assistance in energy statistics. Some comments also contained suggestions regarding the content of the upcoming Energy Statistics Compiler's Manual (ESCM).

It was noted that the target audience of the document should be better identified in chapter 1 as this would provide the reader with the general context of the objectives and purposes of IRES. It was noted that the format of the document follows very closely the format of similar documents approved by the Statistical Commission, however further presentational improvements to make the document more effective could be implemented. In particular, efforts to improve the user-friendliness of IRES and especially of ESCM were encouraged.

IRES was clearly seen by most countries and organizations as a means for international harmonization of energy statistics. It was stressed that double reporting should be avoided and that it would be recommendable to harmonize questionnaires into a common format. Many respondents stressed the importance of IRES to maintain, to the extent possible, consistency with existing concepts, methods and data collection practices. The role of IRES as a reference document was supported and its use by countries in establishing and strengthening national programmes should be recognized and promoted.

4. Comments by Chapters

Chapter 1: Introduction

Question 1.1: Do you overall agree with the content of this chapter?

Countries and organizations overall agreed with the content of this chapter (99 per cent of the responses). A number of comments were provided by the respondents and the majority of them provided explicit support to the content of the chapter also in reference to the efforts of some of the countries in establishing an energy statistics programme. Some countries suggested that the text should emphasize more the link between energy and poverty and the importance of energy for poverty reductions. Some also mentioned that the text needs to clarify how the international recommendations relate to existing legal frameworks in energy statistics (such as the EU legislation)

Some additional suggestions were: to include academic and research institutions as part of the users of energy statistics; and to mention that not only the use of fossil fuels has an environmental impact, but all energy use, transformation and extraction.

It was also noted that para 1.10 incorrectly describes the preparation processes of the IRES and the SEEA-E and should be reverted to the description provided in the previous drafts of IRES.

Question 1.2: Do you agree with the purpose of IRES as described in section B of this chapter?

Countries and organizations overall agreed with the purpose of IRES as described in section B of chapter 1 (97 per cent). Most of the comments received emphasized the importance of having comparable statistics at national and international level. It was noted that the use of common definitions and standards by the various institutions responsible for energy in the country would facilitate the collection and compilation of these statistics and that IRES would be an important reference to guide the establishment and the maintenance of an energy statistics programme. While recognizing the importance of IRES, one comment expressed concerns regarding its applicability in those countries where legal international regulations are already in place.

Only one response did not agree with purpose of IRES as described in section B: it was felt by the respondent that IRES should provide clear reference to which agencies/institutions have to report official statistics. Some detailed editorial comments were provided.

Chapter 2 Scope of energy statistics

Question 2.1: Do you overall agree with the content of this chapter?

There was an overall agreement on the content of chapter 2 (95 per cent). In general, most of the comments explicitly reported in the IRES Questionnaire reinforced their agreement for content of the chapter. Some comments expressed the need to clarify the scope of renewable and renewable energy and include more explanation of the distinction between the two.

Two responses expressed disagreement with the current content of the chapter: in particular one expressed the concern on the feasibility of the recommendation in para 2.17 which encourage countries, whenever feasible, to collect or estimate data on energy consumption by resident and non-resident in order to support the compilation of the accounts; the other expressed the need of further explaining the difference between basic energy statistics, energy balances and energy accounts.

Question 2.2: Do you agree with the stated scope of energy statistics in IRES?

With regard to the scope of energy statistics described in chapter 2, 97 per cent of the respondents agreed with the scope as described in the provisional draft of IRES. Some suggested to link the scope of IRES more closely to the main energy policies such as import dependency, energy price fluctuation, etc. Some mentioned to emphasize in the text the importance of monitoring the non-energy production within the energy industries in addition to the production of energy outside the energy industries. It was also suggested to further clarify the scope of energy statistics indicating that it should not be limited to activities taking place in the national territory (given for example, the growing importance of international bunkering).

One comment highlighted the importance of making more clear the relationship with industrial statistics as some energy statistics are already collected as part of the industrial statistics programmes (for example production from mining and quarrying; electricity and gas supply, etc.).

Only one response did not agree with the scope of energy statistics in chapter 2 because of the lack of explicit reference to energy efficiency statistics and indicators.

Question 2.3: Do you overall agree with the description of the basic concepts and boundary issues?

There was major support also to the description of the basic concepts and boundary issues: 92 per cent of the respondents agree with the current description. Some suggested to further describe the boundary issues, including specific mention to issues related to the attribution of emissions from fuel combustion in a life cycle context; as well as mentioning current trends towards life cycle assessment of energy systems. In regard to the notion of 'Reference Territory', it was noted that statistics of territorial semi-autonomous regions of national governments should be allocated separately for trade and resource measurement

purposes in addition to inclusion in national economic accounts. A number of editorial suggestions were provided also provided.

Question 2.4: Do you agree with the recommendations contained in chapter 2?

There was major support for the recommendations described in chapter 2: 92 per cent of the respondents were in favor of the recommendations. A number of comments explicitly emphasized their support for the current text, including the definition of the energy industries. Some suggested to include reference to the energy consumption statistics for transport and to further clarify the text on "energy industries" and "other energy industries" especially for those countries which use units of homogeneous production. Some suggested to move the recommendation in paragraph 2.17 – encouraging countries to collect/estimate statistics on the consumption of resident abroad etc. – away from this chapter.

Some also suggested to make reference in the text on how energy statistics is related to other statistical programme such as business statistics where statistics on production are already collected and compiled.

Chapter 3: Standard International Energy Classification

The summary presented in this report covers only the responses received as part of the second stage of the worldwide consultation. A summary of the comments received from the Expert Group on Classifications is presented in a separate document (ESA/STAT/AC.221/7).

Question 3.1: Do you overall agree with the content of this chapter?

The majority of the respondents indicated their general agreement with the content of the chapter (92 per cent). Most of the comments received were very specific focusing on: specific changes such as the formatting of the product definitions or inclusion or elaboration on some products (e.g. shale gas, biogas, electrical batteries, anodes). On the other hand, one respondent raised concern that the chapter should be modified to better address the situation of the developing world. It was also suggested to change the title of the classification from SIEC to ISEC (in line with, e.g., ISIC).

A couple of respondents were noted that 'solar energy', 'tidal energy' etc. were not part of the classification. This may indicate a need to more clearly explain the underlying unit of the classification (energy product vs. energy form).

Question 3.2: Do you overall agree with the stated purpose and scope of SIEC?

Countries and organizations were in general agreement with the stated purpose and scope of SIEC (97 per cent), with several comments expressing direct support. There was no disagreement with the stated purpose and scope of the classification. One respondent suggested that para. 3.18, which states that energy is ultimately consumed as electricity or heat, is not technically precise as it does not mention the consumption of energy in the form of *work* and as *process energy*. It was also pointed out that peat should neither be considered fossil or renewable, but rather be considered as a separate category.

Question 3.3: Do you overall agree with the structure of SIEC?

90 per cent of the respondents expressed their overall agreement with the structure of SIEC. The comments identified a number of issues that need further clarification and expressed suggestions for improvements.

Regarding the overall approach, some respondents made reference to the comments separately provided by the Expert Group on Classifications, where a main issue was that the underlying concepts are not sufficiently clear.

Respondents expressed various opinions on the levels and detail of SIEC, and some alternative structures were proposed. It was suggested that a fifth level may be too detailed for reliable information. Inconsistencies in naming of some sections and divisions were also pointed out. One respondent expressed concern that the current groupings of primary and secondary products at the same level might

not lead to useful aggregates. Some respondents also suggested that certain product categories, such as oxygenates and LPG, were misplaced.

There were several suggestions for introducing additional detail to the SIEC structure, including distinctions between treated and untreated versions of some products, a breakdown of 'other hydrocarbons' into main source groups, and breakdown of the 'fuelwood' category, which was also thought to be important for developing countries.

Regarding relationships with other classification systems, several respondents noted the current inadequacy of existing product classifications to deal with energy products, and some suggested that SIEC could have a positive impact in this regard. Also, explicit identification of some product categories with SITC, HS and PRODCOM was requested.

Question 3.4: Do you overall agree with the definitions of energy products provided in section D of the chapter?

Overall 89 per cent of the respondents expressed general agreement with the definitions of energy products. A number of respondents explicitly welcomed the list of definitions of energy products. Nevertheless, a significant number of concerns or suggestions were provided in the comments.

Many respondents stressed the importance of not deviating too much from existing international practices, classifications and/or regulations, in particular: the European regulations, the Harmonized System and IEA concepts and definitions. It was pointed out that some product definitions (brown coal, lignite, sub-bituminous coal, kerosene) could be improved in this regard.

Certain product definitions (e.g. coal categories, lubricants, nuclear fuels, biogasoline, industrial waste) were seen as inadequate or confusing by some respondents. It was also noted that some terms (such as residual fuel oil, biomass, and heavy oils) used in the definitions need to be defined or explained.

A number of suggestions were also proposed such as: to add a reference to shale gas, and to explain the fact that biogas of sufficient quality can be fed into natural gas pipelines. It was also suggested to provide applications of each kind of product, and in some cases provide examples of products for certain categories. One respondent suggested more detail for the electricity category, while another respondent raised the concern that the current breakdown of agrofuels does not cover the full scope of the parent class. It was also suggested that peat should be considered neither a fossil fuel nor a renewable fuel.

Chapter 4: Measurement units and conversion factors

Question 4.1: Do you overall agree with the contents of this chapter?

Overall there was a major support (91 per cent) for the content of this chapter. In general, the comments expressed explicit support for the content of this chapter and the use of the 2006 IPCC Guidelines as a source for the default calorific values.

Some expressed the need to have a complete list of default calorific values and use additional sources for those products not explicitly identified in the 2006 IPCC guideline. A number of respondents highlighted the need to express the calorific values for Natural Gas in terms of Tj per volume, such as metric tons, rather than weight as it is currently in the text. Some noted that the calorific values for biogasoline or biodiesel are identical and that would be advisable to provide more specific values.

It was suggested to include more detail on the measurement of renewable energy such as solar, wind, and hydro and on other renewables such as fuelwood as well as update tables and references for biomass.

It was also suggested that data should be reported in original units rather than common units, and indicated that "for most purposes, it is much more meaningful to use tons of oil equivalent".

Question 4.2: Do you overall agree with the recommendations provided in this chapter?

Overall, 90 per cent of the respondents agreed with the recommendations provided in this chapter. Most of the comments provided explicit support. A number of suggestions were received. For example, it was

proposed that the recommendation in para. 4.40 explicitly mention that the energy producers and industries should provide information on the conversion factors used and that the encouragement expressed in para 4.49 be considered as a recommendation instead.

Some indicated that Btu should be listed among the acceptable alternative of energy units. It was suggested to include in the text either a table which shows the difference between Gross and Net calorific value (similar to table 4 in the annex) or a list with Gross Calorific values. Some respondents also noted that the use of Net Calorific values is for natural gas differs from the EU regulation to use Gross Calorific Values. It was also mentioned in one of the comments that table 4.6 seems 'eurocentric' and not in line with industry practice outside Europe and a global review and endorsement were considered necessary.

Chapter 5: Energy flows

Question 5.1: Do you overall agree with the contents of this chapter?

Overall, 92 per cent of the respondents agreed with the content of this chapter. Most of the comments reiterated their support to the content of the chapters. Some suggested certain structural changes such as merging chapter 5 and the list of data items of chapter 6 and move some discussion (e.g. para 3.13 to 3.15) to chapter 8 on balances. Some respondents felt that the link between ISIC and NACE should be mentioned in the text especially for those countries which uses NACE.

It was suggested that the text should make reference to "product transferred" and "inter-product transfers" and that further explanation should be provided with regard to the breakdown of the energy industries which would seems to exclude transport and commercial activities.

Question 5.2: Do you agree with the description of the main energy flows?

Overall 92 per cent of the respondents agreed with the content of this chapter. Most of the comments reiterated their support to the content of the chapters, however a number of comments expressed the need for additional explanation/clarification in different part of the text. They include the following:

Clarify the treatment of transport in table 5.3;

para 5.47 should either restrict to primary production of include thermal electricity;

Look into the consistency between para 5.10 with para. 2.9 Especially in regard to the primary production for renewable energy;

Improve the description of transfers;

Relate the concepts of secondary production with transformation and clarify the definition of transformation if it includes the generation of heat in self producers (and provide examples);

Add more explanation to Figure 5.1;

Mention in para 5.6 and 5.16 that the stocks are measured at a specific instant in time and that important attention should be given in reporting the stock changes.

It was also mentioned that the definition of flows should be reviewed as for some of the flows the definitions refer to the quantities of fuels included in the flow rather than the description of the flow itself. It was also suggested to include the definition of country of origin, country destination and country of dispatch in addition to that of imports/exports.

Question 5.3: Do you agree with the description of the energy industries?

Overall 90 per cent of the respondents agreed with the description of the energy industries. Most of the comments reiterated their support to the content of the chapters.

A number of specific comments were made in reference to different part of the description of the energy industries. For example, the correspondence to ISIC perceived as incorrect in the case of brown coal briquettes plants. Moreover, the definitions of main activity producers and autoproducers which do not stipulate if the data provider is the plant operator or plant owner; the definition of hydro-electricity, which

should be broader than only covering devices driven by fresh and flowing water; the breakdown of electricity generation processes in paras. 5.47 to 5.57 which should include the processes by thermal power plants (a definition was suggested).

There was an overall agreement with the definition of energy industries; however, there was a suggestion to include the distribution of energy by wholesalers.

More explanation of the transformation was considered important especially to clearly indicate whether specific cases are considered as being transformation processes: such as the shredding of woodfuel into wood chips with special technological equipment or simply the blending of different fuels (for example, blending of peat and sawdust) for sale to the consumers. In most cases, these are seondary activities of an enterprise. Also, one respondent indicated that "blast furnace" is not considered a transformation process in his country.

Some respondents highlighted the importance, for analytical purposes and for decision making, to collect statistics on the production of electricity and heat disaggreagated by the technology.

Once comment opposed the data requirements described in table 5.2 which state that the "electricity produced" should be reported for the autoproducers (instead of the "electricity sold"). Even though it was noted that this is in line with the definitions at international level (e.g. IEA, EU regulation), this is not the practice in the specific country where only the electricity sold is reported.

It was noted by one respondent that, in general, the proposed breakdown of the energy industries is very much oriented towards the extraction and transformation of fossil fuels and it should be more geared towards renewable sources.

Question 5.4: Do you overall agree with the description of the energy consumers and energy consumption?

There was a major support (93 per cent) for the description of the energy consumers and energy consumption. A number of comments highlighted the different classification of urban rail between IRES and the methodology of the IEA/Eurostat/ECE Questionnaire: while in IRES urban rail is classified under Rail transport, in the questionnaire it falls under transport not elsewhere specified.

The following suggestions were made: use of the notion of "gross final consumption" (as in the EU directive) instead of "final consumption"; focus chapter 5 to those flows relevant to basic energy statistics and move to chapter 8 those that are relevant for the energy balances; explain the ordering of presentation of the energy consumers; add more explanation to Figure 5.2 and table 5.3 especially with regard to transport. One respondent also indicated the need to have more clarification with respect to "pipeline transport" especially in connection with ISIC Rev.4.

Chapter 6: Statistical Units and Data items

Question 6.1: Do you overall agree with the contents of this chapter?

Overall 93 per cent of the respondents agreed with the contents of this chapter. Some comments mentioned that the text should describe how the current recommendations on the statistical units in IRES relate to the Eurostat's recommendation to use the plant as basic statistical unit. Some restructuring of the chapter was suggested such as, for example, merging the presentation of data items with chapter 5 and deal only with statistical units in chapter 6. It was also suggested to make reference to the informal sector in this chapter. Other specific comments relate to the list of data items and thus they are presented under question 6.3

Question 6.2: Do you agree with the description of statistical units and related recommendations?

Overall 92 per cent of the respondents agreed with the description of statistical units and related recommendations. Most of the comments gave explicit support to section B of chapter 8 and welcomed the clarity of the information provided.

Some suggested to include more explanation on the difference between 'economic units', 'economic entity' and 'institutional units'. It was also suggested to expand on the discussion of paragraph 6.6 – 6.12, in order to explain how to deal with government companies that are coordinated by a specific ministry.

One respondent mentioned that the statistical unit used in the country is the Kind of Activity unit rather the establishment as recommended in IRES. It was also noted by a respondent that for electricity surveys, the generator rather than the plant/power company should be the unit of analysis.

Question 6.3: Do you overall agree with the list of data items provided in this chapter?

Overall 89 per cent of the respondents agreed with the overall contents of this chapter. Most of the comments expressed the need to include additional data items: in group (ii) data items on stocks and flows; in group (iii) data item on production and storage facilities (no specific suggestion was provided); in group (iv) data items for the assessment of the economic performance (to include, for example, intermediate consumption, wages and capital expenditures).

It was suggested to make explicit reference in the text to the (measurement/reporting) units used for the data items and which statistical units relate to which data item. Some suggested to include data items on the use of appliances, light bulbs etc. in order to provide information on energy efficiency. It was also suggested to give more guidance on how to calculate average price and average number of person employed. Also one respondent noted that, as it is written now, the text seems to mainly cover the needs of economic statistics (for energy industries, etc): data items for basic energy statistics should also cover a discussion and clarifications about quantity reporting (m3, ton, etc) as compared to data items in energy quantities (Joule, kWh, toe, etc.).

Some specific concerns were raised linked to the availability of the information: imports by origin and exports by destination are sometime not clear especially in the gas market; data items on the gas storage capacity are often confidential; and data on subsidies are often very difficult to be provided by the industries.

Chapter 7: Data Collection and Compilation

Question 7.1: Do you overall agree with the content of this chapter and its recommendations?

There was a major support (96 per cent) for the content of this chapter and its recommendations. A number of comments emphasized the importance of a legal framework and some suggested the development of practical guidelines for the establishment of a legal framework. It was pointed out that the recommendation stated in para 7.11 that the interagency coordination mechanism […] have the authority to implement its own recommendations for improvement to the national system of energy statistics may not be consistent with legal systems in countries where the energy statistics are collected by an agency that, by law, is independent. Some also noted that the collection of data on fuelwood is often difficult and more guidance should be provided either in IRES or in the ESCM.

Question 7.2: Do you overall agree with the recommendations on institutional arrangements as provided in section B of the chapter?

Overall 92 per cent of the respondents expressed their support with the recommendations on institutional arrangements provided in section B of chapter 7. A number of comments emphasized the importance of an institutional arrangement and mentioned different key elements such as the importance of the legal foundation for the collection of data, and the clear identification of responsibilities between the involved institutions. It was suggested to include a paragraph on the system improvements such as the establishment of upload function. In order to reduce response burden in the countries, it was also suggested to develop data sharing agreement between international institutions.

Chapter 8: Energy Balances

Question 8.1: Do you overall agree with the content of this chapter and its recommendations?

Overall 91 per cent of the respondents expressed their support the content of this chapter and its recommendations. A number of suggestions were provided:

Further explanation of how to calculate the energy input of solar and hydro to generate electricity is needed;

Include in this chapter the relevant definitions of flows which were defined in chapter 5;

Restate the standards on the recommended use of imputation for mutli-year or out of scope survey data from Chapter 7 in this chapter;

Clarify the distinction between balance for final energy and useful energy;

Include a quantitative indication of large statistical difference in para 8.45;

Consider using terms such as "Gross inland consumption" instead of "Total energy supply" (in para. 8.18) and the terms "available for final consumption' and "final energy consumption" to distinguish for the non-energy uses;

Possibly move the losses in distribution between production/transformation and consumption;

Possibly move the international bunkering away from the top block on the ground that international bunkering is a competing use within the country;

Adding a diagram illustrating the flows of energy from supply to demand;

Include a reference to a lag of 'x weeks' in the discussion of reference period (para 8.9a);

Reconsider the use of sign for stock changes;

Move international bunkering from the supply to the demand side of the balance.

Two respondents objected to the recommendations provided in this chapter. In particular, one respondent preferred the current national practice to use the partial substitution method instead of the recommended physical energy content.. The other respondent suggested using an ISIC-based presentation of the energy industries in order to enable the integration of the statistics produced with other domain (and therefore facilitate database linkages).

Question 8.2: Do you overall agree with the templates of energy balances presented in tables 8.1 and 8.2?

Overall 88 per cent of the respondents expressed their support the content of this chapter and its recommendations. The comments expressed a general support for the tables and in particular for the aggregated energy balance acknowledging that country may use different structures depending, among other things, on their policy concern and energy planning. Some comments brought up some difference in the country practices such as the treatment of blast furnace (as a primary production when it generates electricity).

Some suggested to explicitly include the flaring and venting as a memo item in the energy balances; to move "Agriculture" out from under the category "other" and make it a category in its own right as this would be especially relevant for countries which heavily rely on agriculture; and to add more detail on primary production. In general it was felt that more explanation on the structure of the balances should be provided in this chapter on the structure of the balances (for example, regarding the column 'of which renewable').

Some concerns were expressed regarding the balance format, in particular, some respondents argued that the consumption of the energy industries should be ISIC based (in which case , for example, "construction" would not be part of "Industries"); household should be separately identified and not

included under the category "other"; there should be a distinction between input and output of transformation processes; the term "final energy consumption" should be introduced to distinguish from the "non-energy use"; countries that do not collect or publish sub-sector data ware not able to compile balances and there should be a recommendation to developed time series templates with main aggregates in addition to the energy balances.

One respondent expressed concern regarding the split between domestic and international aviation, as this would, in the view of the respondent, distort the balance

Chapter 9: Data Quality Assurance and Metadata

Question 9.1: Do you overall agree with the content of this chapter and its recommendations?

There was major support for the content and recommendations of this chapter: 98 per cent of the responses were in favor and no objection was expressed. Overall the comments supported the content of the chapter and welcomed the presentation on data quality assurance in light of the efforts of some of the countries to develop and implement a data quality framework at national level. A number of editorial suggestions were provided.

Question 9.2: Do you overall agree with the set of quality indicators presented in Table 9.2?

Overall 92 per cent of the respondents agreed with the set of quality indicators presented in Table 9.2. In general, the comments welcomed the suggested list of quality indicators. A number of suggestions were made such as possibly including uncertainty measures.

Two respondents did not agree with the list of indicators. One indicated that because an indicator list is currently being developed within the country, at this stage they cannot endorse the proposed list.

Question 9.3: Do you overall agree with the template for accompanying metadata presented in para. 9.27?

Overall 93 per cent of the respondents agreed with the template for accompanying metadata presented in para. 9.27 and no disagreement was expressed. In general, the comments stressed the importance of metadata. The recommendation to use SDMX was also considered very important and it was suggested to review table 9.3 based on the SDMX cross domain concepts.

Chapter 10: Dissemination

Question 10.1: Do you overall agree with the content of this chapter and its recommendations?

Overall 94 per cent of the responses agree with the content and recommendations presented in chapter 10. In general, the comments received provided explicit support with the content and recommendations in the chapter.

Two respondents did not agree mainly because it was felt that the recommended timeline for the release of data was too short (in this regard, it should also be mentioned that one comment indicated that the recommended timeline would provide timely data and it should be shorten).

Question 10.2: Do you overall agree with the recommendations on handling confidentiality issues and the application of confidentiality rules presented in this chapter?

Overall 97 per cent of the respondents agreed agree with the recommendations on handling confidentiality issues and the application of confidentiality rules presented in this chapter and no disagreement was expressed. One respondent asked for some elaboration on the international dimension of confidentiality. In general, the comments reiterated the importance of confidentiality and welcomed its presentation in IRES.

Question 10.3: Do you overall agree with the recommendations on reference periods and dissemination timetables presented in this chapter?

91 per cent of the respondents agreed with the recommendations on reference periods and dissemination timetables presented in this chapter. In general, the comments explicitly supported the recommendation on the use of the Gregorian calendar as the reference period. Some country noted that they use the fiscal year and adjustments are needed to produce statistics on a different reference period. Also some countries noted that the release calendar may not always be respected as the data providers often do not report data on a timely manner.

Five respondents did not agree with the recommendations on the reference period and release timetables. While some felt that the release calendar is too ambitious because of the short time between the data release and the reference period, others objected that a shorter time lag should be recommended.

Chapter 11: Use of energy statistics and balances for the compilation of energy accounts and other statistics

Question 11.1: Do you overall agree with the content of this chapter?

Overall, 80 per cent of the respondents agreed with the content of this chapter. A large number of respondents (16 per cent) did not express an opinion mainly because of the lack of expertise. Four respondents did not agree with the content of this chapter. Some of concerns expressed were:

The text should indicate that energy balances are not the only possible data source for the compilation of the accounts, as ad-hoc data collection can also be used.

The section on indicators should be moved to the Energy Statistics Compilers Manual

Although it was considered important to show the link between energy use and greenhouse gas emissions, it was considered very ambitious to provide information about additional data items needed to calculated greenhouse gas emissions in IRES (as suggested in para 11.1 and part D). It was suggested that Section D should describe in general terms the use of energy statistics as input in the calculations of emission-related energy use.

Regarding indicators, it was suggested to focus on the most important energy indicators such as primary energy supply and share of renewables. Some concerns were expressed on indicators based on taxes and subsidies because of lack of adequate definitions of the latter.

Question 11.2: Do you overall agree that the differences in concepts, terminology and presentation between energy balances and the energy accounts are made sufficiently clear.

Overall, 80 per cent of the respondents agreed with the clarity in the presentation of the differences in concepts, terminology and presentation between energy balances and the energy accounts. Also for this question a large number of respondents (12 per cent) did not express an opinion.

Suggestions received in order to improve the text were: the inclusion of, for example, a more explicit correspondence between final consumption in energy statistics and the concept of intermediate and final consumption in the accounts; more explanation on the reasons for compiling environmental accounts; specific examples to understand the differences between balances and accounts. It was also noted that the description of the adjustments between energy balances and accounts with respect to imports/exports need to be reviewed.

Annexes

Question 12.1: Do you agree that the proposed Annexes are useful?

Overall, 96 per cent of the respondents found the proposed Annexes useful. Overall, the comments received explicitly mentioned the importance and usefulness of the Annexes. The one respondent that did not agree expressed concern about a specific correspondence between SIEC and CPC in the case of

lubricants. One respondent suggested an annex containing a review of methods and techniques for obtaining information on flows of non-commercial energy products, such as fuelwood

Question 12.2: Do you overall agree with the lists of primary/secondary and renewable/non-renewable energy products presented in Annex A?

Overall, 94 per cent of the respondents agreed with the lists of primary/secondary and renewable/non-renewable energy products presented in Annex A. Overall the comments received welcomed the proposed list. It was noted that the text needs to be reviewed for internal consistency. One respondent did not agree with the proposed list: the concern was on the treatment of refinery feedstock as secondary product (instead of primary) and synthetic gasoline produced from natural gas. One respondent suggested to add descriptions to Annex A regarding renewable and non-renewable products, parallel to the already existing descriptions on primary and secondary energy products

Question 12.3: Do you overall agree with the recommendations on commodity balances provided in Annex D?

Overall, 91 per cent of the respondents agreed with the recommendations on commodity balances provided in Annex D. Few comments were received and in general they expressed their support for the recommendation in Annex D and provided some suggestions for improvements.

List of countries and organizations that have participated in the 2nd stage of the worldwide consultation

1. Afghanistan – Central Statistics Organization	49. Morocco – Direction de la Statistique
2. Armenia – National Statistical Service of the Republic of Armenia	50. Netherlands – Statistics Netherlands
3. Australia – Australian Bureau of Statistics	51. New Zealand – Statistics New Zealand
4. Austria – Statistics Austria	52. New Zealand – Ministry of Economic Development
5. Azerbaijan – State Statistical Committee	53. Niger – Ministère des Mines et de l'Energie
6. Bahrain – National Oil and Gas Authority*	54. Norway – Statistics Norway
7. Bangladesh – Bangladesh Bureau of Statistics	55. Paraguay – Direccion De Recursos Energeticos. Viceministerio De Minas Y Energia. Ministerio De Obras Publicas Y Comunicaciones
8. Belarus – National Statistical Committee of the Republic of Belarus	56. Poland – Central Statistical Office
9. Bosnia and Herzegovina – Agency for Statistics of Bosnia and Herzegovina	57. Poland – Agencja Rynku Energii*
10. Botswana – Central Statistics Office	58. Portugal – Direcção Geral de Energia e Geologia/MEID (General Directorate for Energie and Geologie/Ministrie of Economy, Innovation and Development)*
11. Brazil – Ministry of Mines and Energy - Secretariat of Energy Planning and Development	59. Republic of Serbia –Statistical Office
12. Cameroon – SCTTIE-CEMAC	60. Romania – National Institute of Statistics
13. Canada – Statistics Canada	61. Russian Federation – Federal State Statistics Service
14. Central African Republic – Institut Centrafricain des Statistiques et des Etudes Economiques et Sociales (ICASEES)	62. Rwanda – National Institute of Statistics of Rwanda (NISR)
15. Chile – Instituto Nacional de Estadisticas	63. Saint Helena and Dependencies – St. Helena Electricity Authority*
16. Colombia – Departamento Administrativo Nacional de Estadística (DANE)	64. Sierra Leone – Statistics Sierra Leone
17. Croatia – Central Bureau of Statistics	65. Singapore - Energy Market Authority*
18. Cyprus – Statistical Service of Cyprus	66. Slovakia – Statistical Office of the Slovak Republic
19. Czech Republic – Czech Statistical Office	67. Spain – Instituto Nacional de Estadistica
20. Denmark – Statistics Denmark	68. Sri Lanka – Department of Census and Statistics
21. Dominican Republic – Comisión Nacional de Energía (National Energy Comission)*	69. Suriname – General Bureau of Statistics
22. Ecuador – Instituto Nacional De Estadistica Y Censos (INEC)	70. Swaziland – Ministry of Natural Resources and Energy
23. Egypt – Central Agency for Public Mobilisation and Statistics (CAPMAS)	71. Sweden – Statistics Sweden
24. Estonia – Statistics Estonia	72. Sweden – Swedish Energy Agency
25. Georgia – National Statistics Office of Georgia	73. Switzerland – Swiss Federal Office for Energy*
26. Germany – Federal Statistical Office / Federal Ministry of Economics and Technology (BMWi)	74. Thailand — Department of Alternative Energy Development and Efficiency (DEDE)*
27. Ghana – Ghana Statistical Service	75. Thailand – Electricity Generating Authority Of Thailand*
28. Hungary – Energy Centre Hungary*	76. Tunisia – National Institute of Statistics
29. India – Central statistics Office	77. Turkey – Turkish Statistical Institute (TurkStat)
30. Israel – Israel Central Bureau of Statistics	78. Uganda – Uganda Bureau of Statistics
31. Italy – National Institute of Statistics (Istat)	79. Ukraine – State Statistics Committee of Ukraine
32. Japan – Ministry of Internal Affairs and Communications	80. United Arab Emirates – National Bureau of Statistics
33. Jordan – Department of Statistics	81. United Kingdom – Department of Energy and Climate Change (DECC)
34. Kenya – Kenya National Bureau of Statistics	82. United States – Department of Energy*
35. Korea, Republic of – Korea Energy Economics Institute*	83. Viet Nam – General Statistics Office of Vietnam

36. Kyrgyzstan – The National Statistical Committee	84. APEC
37. Latvia – Central Statistical Bureau of Latvia	85. ECLAC
38. Lebanon – Central Administration of Statistics	86. ECOWAS
39. Lithuania – Statistics Lithuania	87. ESCWA
40. Luxembourg – Service Central de la Statistique et des Etudes Economiques (STATEC)	88. Eurelectric
41. Libyan Arab Jamahiriya - General Information Authority	89. Eurogas
42. Madagascar – Institut National de la Statistique	90. EUROSTAT
43. Malaysia – Department of Statistics	91. FAO
44. Malaysia – Malaysian Green Technology Corporation*	92. IAEA
45. Malta – National Statistics Office	93. UNFCCC
46. Mauritius – Central Statistics Office	94. UNIDO
47. Mexico – Instituto Nacional de Estadística y Geografía (INEGI) / Ministry of Energy*	95. WEC
48. Moldova (Rep. of) – National Bureau of Statistics	

* Coordinated with the NSO and Ministry/Institution/agencies active in energy statistics in the country.