Energy Statistics Working Group Meeting

International Energy Agency, Paris 16-17 November 2004

Meeting Report

The joint IEA/Eurostat/UNECE Energy Statistics Working Group (ESWG) meeting was attended by 144 people from 40 countries and 7 international organizations. The main purpose of the meeting was to agree on changes to the five annual joint energy statistics questionnaires.

Setting the Scene

The meeting was opened by Ambassador William Ramsay (Deputy Executive Director of the IEA). The IEA has made energy statistics a priority in its programme of work with several actions to raise the level of statistics within the IEA and in its Member Countries. At the October Governing Board meeting, the Secretariat gave a presentation highlighting some issues faced by many Member Countries. The IEA received strong support from the Governing Board which asked the IEA to inform the respective Governing Board members of each country of the problems encountered. The Governing Board also asked each country to make the necessary efforts to improve the level of their statistics.

Mr. Ovidio Crocicchi (Head of Energy and Transport Unit of Eurostat) pointed out that the increasing number of countries participating in the ESWG is a measure of the success of this event and proves the importance of energy statistics. Energy statisticians face more and more problems because of the variety of sources and players in the energy sector. At the same time energy policy requires more statistics for environmental purposes, energy efficiency and concerns about security of energy supply. The five joint IEA-EUROSTAT-UNECE annual energy questionnaires must take account of the changes in the future of the energy sector. Main concerns of energy statisticians should be to meet the needs of data users. Eurostat is preparing a legal framework for the purpose of energy data collection.

Mr. Jan Karlsson (Chief of the Economic Statistics Methodology Section of the UNECE Statistical Division) explained that IEA, EUROSTAT and UNECE have a long history of cooperation which avoided duplication and reduced burden on countries, as well as set international standards.

Mr. Jean-Yves Garnier (Energy Statistics Division/IEA) presented the background, meeting objectives and agenda. The energy market is a fast evolving market: liberalization leads to more players, mergers lead to larger and more international companies, high oil prices facilitate the development of renewables as well as energy saving policies, and last but not least the Kyoto Protocol leads to a need for more detailed and accurate data. The main objective of the meeting was for statisticians to take into account these developments in their work and to adapt the current questionnaires to the new situation. Energy statisticians have been facing severe cuts in their resources over the recent years, and there was a growing gap between resources and the work they were requested to do. The consequence has been a certain decline in data quality and timeliness. Mr. Garnier said that the IEA and other organisations had a key role to play in reversing these trends and were committed to doing so. A second objective was, therefore, to discuss ways and means to reverse the trends. The third objective of the meeting dealt with the importance for organisations to better know statisticians of their Member Countries and for participants to meet with their homologues in other Member Countries. Mr. Garnier ended by saying that he hoped that the agenda, the speakers and the discussion in and around the meeting would allow participants and organizers to gain as much as possible out of the meeting.

Resources for energy statistics within national statistical offices is a critical issue and Mr. Michael Janes (the United Kingdom) and Mr. Peter Dal (Denmark) made presentations on how their countries were dealing with evolving data collection needs and budget constraints. Both speakers highlighted that the decline in data quality was not inevitable and much could be done through commitment and creativity.

The importance of collecting **good-quality and timely statistics** was underscored by presentations from Mr. James Grabert of the UNFCCC and Ms. Laura Cozzi of the IEA's Economic Analysis Division. Mr. Garnier noted that the *World Energy Outlook* needs additional data that needs to be collected outside the Statistics Division since the Statistics Division doesn't collect those data and wants to limit the additional reporting burden on countries.

Two presentations were made on **hydrogen** to illustrate that although potentially this energy carrier could make a significant contribution to solving environmental concerns of energy use, for the moment, it is premature to add hydrogen use into the annual questionnaires. Mr. Simbolotti (Energy Technology Office/IEA) and Mr. Antonio Di Cecca (Energy Statistics Division/IEA) explained to the meeting that we do not yet need statistics on hydrogen energy use; information on hydrogen production would be sufficient. This issue should be revisited at the next ESWG meeting.

Two cross-cutting issues were discussed in this session since they affected all of the questionnaires.

Public vs autoproducers

Mr. Pekka Losonen (Eurostat) presented several options on how to deal with the public/autoproducer split for electricity and heat generation, recognizing that there is no perfect solution. In the discussion that followed, the United Kingdom noted that companies have taken an interest in how their production and fuel consumption are allocated for emissions trading/national allocation plan purposes. While in the past they could only be allocated on a "main activity of company" basis (subject to confidentiality constraints), in the future they might be able to allocate the production and fuel consumption on a plant by plant basis because the companies might be willing to provide the data at that level if it were in their financial interest. Italy felt there was no need to change the current definitions and just pointed out that due to market liberalization, there may be movement between the two categories which could cause breaks in time series.

Decision: Since there is no agreement on a better method to define the production of electricity and heat, the definitions will remain unchanged. However, in the interest of clarity, the term "public" (which is often wrongly perceived as publicly owned) will be renamed "main activity producer". Note from the Secretariats: for the first year, both terms (i.e. public/main activity producer) will be included in the questionnaires to facilitate the change. Autoproducer (which is more self explanatory) will remain unchanged.

Transfers between fuels

Mr. Pierpaolo Cazzola (Energy Technology Office/IEA) presented several proposals as to how to deal with liquefaction of natural gas, regasification of LNG, coal liquefaction, gas-to-liquids, gas works gas and blended natural gas.

Japan fully supported the introduction of blended natural gas in the joint questionnaires.

Decision: The proposals made by the Secretariats were approved by the meeting. The specific changes are explained in Special Issue Paper 3 and included below under each of the questionnaires.

Electricity and Heat

Mr. Ulrik Stridbaek (Energy Diversification Division/IEA) gave a presentation on the liberalisation and regionalisation of the electricity market. In the ensuing discussion, the Netherlands said that they measure the imports and exports at the border and then have international statistics. The two do not match. It is hard to know the origin of the electricity and additional information would be necessary.

Mr. Stridbaek agreed, but stressed that it was important to distinguish between the contracts and the physical flows. Mr. Mertens remarked that this issue needs further reflection.

Mr. Seung-Jin Kang (Korea) gave a presentation on district cooling and the impact on energy statistics. For the moment, this form of energy is fairly small and we do not yet need to take this into account in the joint questionnaires.

Mr. Pekka Lösönen (Eurostat) presented the issue of combined heat and power (CHP) plants, and the methodology used in the European Union to assess the "real" (high efficiency) CHP contribution. EU legislation requires data collection with specific efficiency criteria by cycle type. To harmonise reporting obligations of the EU Member States, the inclusion of two tables in line with the CHP methodology in the relevant EC Directive were proposed to be included in the electricity and heat questionnaire.

Mr. Nikolaos Roubanis (Eurostat) presented a proposal on how to deal with waste heat generated from chemical processes, the supply of which is currently not covered in the joint questionnaires. A specific proposal on how to account for process heat was presented. The issue of accounting for ambient heat was also briefly presented. In the discussions that followed Austria requested that the contribution from ambient heat be included in the final consumption of other sectors (e.g. households). Germany explained that they also account for ambient heat in a similar way at national level. This issue may be further discussed between Eurostat and the IEA, recognizing that the contribution of the missing ambient heat from other sectors is small.

Following these presentations, Mr. Vladimir Kubecek (Energy Statistics Division/IEA) presented several proposals for discussion:

Proposal 1: heat from chemical processes

The joint *electricity and heat questionnaire* currently does not account for recuperated heat resulting from a chemical process. The current definition only focuses on secondary heat production (public CHP and heat plants, plus heat sold from autoproducer CHP and heat plants), and therefore ignores primary heat generation from chemical processes.

Decision: A row for heat from chemical processes will be added to Tables 1 and 2. A row will be added to Table 3 for heat used for electricity production. Capacity in Table 7a will be reported as part of "other energy sources".

Proposal 2: statistical differences

Countries sometimes have differences between calculated and observed consumption. Since there is currently no statistical difference row in the *electricity and heat questionnaire*, this sometimes leads to misreporting of transmission and distribution losses or non-specified consumption.

Decision: Add a row for statistical differences to Table 3.

Proposal 3: aviation/navigation/fishing and military

See Proposal 4 for the oil questionnaire.

Decision: New definitions will be used.

Proposal 4: blast furnaces

Currently, any electricity used in blast furnaces is reported in energy sector not elsewhere specified.

Decision: Add a row for blast furnaces in the energy sector in Table 4, Table 5 and Table 9.

Proposal 5: fuel inputs to electricity and heat generation

A one-to-one mapping for fuel inputs to electricity and heat generation between questionnaires would improve the transparency of the data and allow better checking.

During the discussion the United Kingdom indicated that they were not in favour of extending the fuels from 11 to 38, not because the data are not available, but because when the data are broken down into six columns as well as the 38 rows confidentiality resulting from the small number of companies per cell will prevent them from reporting the data on the questionnaires and in the end there will be less information (gathered at greater effort and resource cost) than before. Note from the Secretariats: since these data are already reported separately in the fuel questionnaires, for Table 6 this should not unduly increase the reporting burden of the countries. Table 9 may be more problematic, but the issue already exists in the current questionnaires.

The United States indicated that they have problems splitting the renewable and non-renewable portion of municipal solid waste. Denmark responded that no country has exact figures, but they must try to calculate it for their emissions inventories. Each country must find its own solution.

Decision: Expand Table 6 and Table 9 to include 15 coal categories, 14 oil categories and 8 renewables and wastes categories in addition to natural gas. See the paper on Proposed Changes to the Electricity and Heat Questionnaires for the detailed fuel lists.

Proposal 6: autoproducer tables

Harmonizing the flows in the autoproducer tables across the questionnaires for the energy and transport sectors will improve the transparency of the data.

Decision: The tables for inputs to autoproducers will be expanded to include the same flows across questionnaires. Specifically, this means that for coal (Tables 9a, b and c), rows will be added for liquefaction in the energy sector, total transport, rail and not elsewhere specified. For renewables and waste (Tables 9h, i and j) rows will be added for coal mines, patent fuel plants, coke ovens, oil refineries, gas works and BKB plants in the energy sector, total transport, rail and not elsewhere specified. Table 4 will add rows for blast furnaces, liquefaction plants, gasification plants and charcoal production plants in the energy sector. Table 5 will add rows for liquefaction plants, gasification plants, charcoal production plants in the energy sector and rail.

Proposal 7: combined heat and power (CHP)

The current reporting system excludes the energy flow of the heat portion not being sold by autoproducers and therefore does not provide for an accurate assessment of CHP compared with separate heat and electricity generation.

Also, the EU member countries have new reporting obligations as a result of the new EU directive on the reporting of CHP statistics.

Decision: No change will be made to the current definitions or reporting in the joint questionnaires at this point. However, IEA/Eurostat/UNECE will work towards a long-term solution to provide an accurate and complete reporting of CHP.

Meanwhile, two new tables will be added on CHP input and output in order to allow the EU member countries to fulfill their reporting obligations. Non-EU countries do not need to report these tables.

Renewables and Waste

Mr. Rick Sellers (Renewable Energy Unit/IEA) made a presentation on renewables in tomorrow's energy supply and Mr. Paul Hodson (DG TREN) made a presentation on whether statistics can track the fast growing development of renewables.

Mr. Nikolaos Roubanis (Eurostat) presented a proposal on obtaining more detailed information on liquid biofuel, in particular biogasoline, biodiesel and other liquid biofuels. The main issue in this proposal was to allow Member States to report biofuels used as such or as additives to petroleum products in a coherent way in both the *renewables and wastes questionnaire* as well as in the *oil questionnaire*, keeping the reporting requirement to a minimum.

In the ensuing discussion, Austria asked about passive solar. Mr. Sellers replied that it was an important factor to reducing energy consumption, but that there is not an easy way to quantify and

account for this. India indicated that they have problems with ethanol data and they don't know how much is available. They had a program to make 5% blending compulsory, but due to shortages and the price of ethanol they could not carry out the program. They asked how best to collect information on biofuels. Ireland was also interested in discussing data collection of biofuels. The Czech Republic indicated that IEA/Eurostat/UNECE should also ask what methodologies were used for the biofuels – it was not enough to just collect the data. The Czech Republic also raised the issue of trade in biofuels. It is currently being counted as trade in chemicals. Mr. Mertens agreed that there was a problem with trade at the European level and said that a solution should be found.

Following this presentation, Mr. Olivier Lavagne d'Ortigue (Energy Statistics Division/IEA) presented several proposals for discussion:

Proposal 1: liquid biofuels

Biofuels is becoming increasingly important in energy policy since they have the potential to displace a substantial amount of refined petroleum products.

Decision: Split liquid biofuels into three categories: biogasoline, biodiesels and other liquid biofuels in Table 2 and Table 3. In addition, liquid biofuels will be taken out of Table 5 since they are not used for electricity and heat generation.

Proposal 2: blended natural gas and gas works gas

A new method for reporting blended natural gas and gas works gas was set out in Special Issue Paper 3.

Decision: Rows will be added to the transformation sector of Table 2 for gas works gas and for blended natural gas to conform to the suggested reporting methodology.

Proposal 3: aviation/navigation/fishing and military

See Proposal 4 for the *oil questionnaire*.

Decision: New definitions will be used.

Proposal 4: transformation processes

Currently, any renewables or wastes that are used in patent fuel plants or in BKB plants are reported in not elsewhere specified in the transformation and energy sectors. Although likely limited, this change is to allow the reporting of potential use of renewable solids as binding agents in the production of patent fuel and BKB.

Decision: In Table 2 and Table 5, rows will be added to the transformation sector for patent fuel plants and BKB plants and a row for BKB plants will be added to the energy sector.

Proposal 5: order of magnitude change

The current units requested for some items in the *renewables and waste questionnaire* are too large to accurately track the small amounts of these energies.

Decision: The order of magnitude of electricity generation for solar photovoltaic, wind and tide/wave/ocean will be changed from GWh to MWh. These changes will not affect the *electricity* and heat questionnaire which will continue to request the data in the same units as previously. The three new categories of liquid biofuels will be requested in tonnes in the *renewables and waste questionnaire* and in 1000 tonnes on the *oil questionnaire*.

Proposal 6: autoproducer tables

See Proposal 6 for the *electricity and heat questionnaire*.

Decision The tables for inputs to autoproducers will be expanded to include the new products and flows to match the revised list in the *electricity and heat questionnaire*. Specifically, this means adding the three new liquid biofuel categories as products. In addition, rows would be added to the energy sector for coal mines, patent fuel plants, coke ovens, oil refineries, gas works gas, blast

furnaces and BKB plants. Rows for rail and not elsewhere specified would be added to the transport sector.

Oil

Mr. Lawrence Eagles (Oil Industry and Markets Division/IEA) made a presentation on the changing dynamics of oil fundamentals. He felt that the oil market is in a permanent state of flux and that there is no use waiting for a situation like this year to repeat itself before action is taken to collect better statistics. He suggested that information is needed on API gravities, sulphur content, capacity, stocks and refinery data, as well as on non-OECD countries.

Ms. Mieke Reece (Energy Statistics Division/IEA) made a presentation on the densities of oil products. The IEA and Eurostat use these values to convert data from the annual questionnaires to barrels. Densities do not remain constant over time and the IEA values were last reviewed about 10 years ago. Ms. Reece proposed to recalculate the weighted average densities by region based on the survey results. She asked that those countries, including the UNECE countries, who have not yet supplied their information, do so.

Mr. Michael Janes (the United Kingdom) made a presentation on the treatment of recycled oils as inputs to power production. In the United Kingdom, about 35% of lubricants are recycled – most of this oil is used for lighting up purposes as opposed to a generating fuel. Three solutions were presented: a) increasing the oil use at power stations – would need to increase supply (possibly using the recycled row), b) excluding the recycled oil from electricity generation (this would understate the fuel used), or c) treating recycled oil as a waste and include it in the *renewables and waste questionnaire*.

Germany has the same problem and only includes recycled fuel that is cleaned and then reprocessed in cleaning facilities. However the power plants are sometimes mixing this oil with waste oil. Since the waste oil is not included in the *oil questionnaire*, the consumption might exceed production. These oils are reported mainly as lubricants but sometimes as fuel oil since they are mixed with fuel oil. Denmark uses recycled oil in district heating and stressed that for CO2 emissions, it is important that it be accounted for. Mexico uses recycled oil in the cement industry and includes it in waste in their energy balance. Korea shows this as backflows. It is then included with fuel oil and consumed in the manufacturing industry. Korea asked for a common practise recommendation. Austria, which uses recycled oil in non-metallic minerals, includes these amounts in industrial waste.

Ms. Reece recommended using the line for recycled oil and encouraged countries to include reprocessing plants in their surveys, noting that the IEA understands the difficulties connected with surveying these plants.

Following these presentations, Ms. Cintia Gavay (Energy Statistics Division/IEA) presented several proposals for discussion:

Proposal 1: biofuels

Biofuels is becoming increasingly important in energy policy since they have the potential to displace a substantial amount of refined petroleum products.

Norway indicated that for the moment they do not have a lot of biofuel use, but that they are starting to collect the data so they should be able to report what they have.

Decision: A column for biofuels will be added to Table 1 and columns will be added to Table 2 and Table 3 for biogasoline and biodiesels.

Proposal 2: transfers

Currently, it is sometimes difficult to follow fuels that are transferred from one questionnaire to another. The current row used to report other sources may include information related to several different processes.

Decision: Three rows will be added at the bottom of the supply table to show separately the "from other sources" that are from coal, from gas and from renewables/wastes.

Proposal 3: blended natural gas and gas works gas

A new method for reporting blended natural gas and gas works gas was set out in Special Issue Paper 3.

Decision: A row will be added to the transformation sector for inputs to blended natural gas to conform to the suggested reporting methodology.

Proposal 4: aviation/navigation/fishing and military

Ms. Karen Treanton (Energy Statistics Division/IEA) made a presentation on the reporting of fuels used for international aviation and marine bunkers (including the fuels used by military forces). The current definitions are complex and not always consistently reported by countries, partly due to the fact that the definitions are not always clear. Moreover, the definitions on the joint questionnaires are different than those used in the *IPCC Guidelines* and by the UNFCCC.

During the discussion, France indicated that military consumption could be a problem and that it would take time to initiate a formal process to obtain the information since they would need authorization from the Ministry of Defense. The Secretariat pointed out that this was already an issue for the emissions inventories so attempts to obtain the data may already be started. Denmark and the United Kingdom welcomed the harmonization, but raised the issue of the split between international and domestic aviation since oil companies have no way of knowing the split since they only know the amount of fuel delivered. The United Kingdom also noted that to get information on road use of agriculture vehicles and vehicles used in aviation will be difficult and probably impossible. They also noted that the split between domestic and international bunkers holds the same problems as a split in aviation. Eurostat informed the meeting of the initiative of the EU to use flight information from Eurocontrol and hope that this will allow them to show the data separately (currently Eurostat adds the two together due to data quality problems). New Zealand has the same problems with the international/domestic split for aviation due to reporting only from the oil companies. To ensure the quality of the split they are trying to collect information from the airline companies. The ICAO definition would cause them problems.

The Secretariats also recommended that countries coordinate their efforts between the energy statisticians and those organizations participating in the climate change process so that estimates made by both groups for the international/domestic split and for military be based on the same assumptions. The UNFCCC and Ms. Treanton emphasized the importance of having consistent time series (at least back to 1990) to support the Convention process now that Russia has decided to ratify the Kyoto Protocol and informed the meeting that the *IPCC Good Practice Guidance* sets out methods for backcasting activity data. Ms. Treanton also informed the meeting that ICAO thinks that in the differentiation between domestic and international aviation the place of departure and place of arrival are not enough for accounting but the stages of the flights should be taken into consideration.

Decision: While recognizing that reporting these figures may still be difficult, the Secretariats are proposing to create a reporting framework that countries could work towards. The meeting agreed that the definitions should be harmonized with those used by the IPCC and the UNFCCC. As a result, military fuel use will be moved out of international marine bunkers and out of domestic aviation and will be included in other – not elsewhere specified. Inland waterways and coastal shipping will be renamed domestic navigation. Fishing will be shown separately from agriculture/forestry. The decision on whether to specify whether the international/domestic split should be made on the basis of departure and landing locations *for each stage* will be postponed pending the outcome of discussions on the 2006 IPCC Guidelines which should occur by January 2005. The exact wording of the proposed definitions for international marine bunkers, domestic navigation, international aviation, domestic aviation, road, transport – not elsewhere specified, fishing and other sector – not elsewhere specified are included in Special Issue Paper 7.

Proposal 5: leaded/unleaded gasoline

Very few OECD countries are still using large amounts of leaded gasoline.

Decision: The joint questionnaires will no longer request that leaded and unleaded gasoline be reported separately.

Proposal 6: net calorific values (NCVs) for secondary oil products

Ms. Karen Treanton (Energy Statistics Division/IEA) made a presentation on the net calorific values of secondary oil products. Currently, the IEA and Eurostat are using the same NCVs for all countries (although the values used by Eurostat and the IEA are not the same). Based on the methods currently used by the Secretariats, these factors can cause refinery gains in the IEA data and problems in the NCVs calculated for crude oil in the Eurostat data. In addition, the CO₂ emissions estimated by the two Secretariats can be very different to those calculated by the countries.

During the discussion, Austria explained that the Ministry of Economic Affairs collects the NCVs directly from enterprises for the transformation sector and end-users every two years. The differences between the transformation sector and the end-users are small, as is the variation over time. Austria also reported the same NCVs on the IEA survey that they report to the UNFCCC. Denmark and Norway concurred that it would be desirable for the Secretariats to use country-specific NCVs. France pointed out that it may be costly for companies to obtain the information and that it probably was done by sampling. France was not confident in the results and would like feedback from the Secretariats that they could use in discussions with the companies. France also pointed out that recent changes to the European specifications for gasoline and diesel must certainly have affected the NCVs.

Decision: Add a line at the bottom of Tables 2A1 and 2A2 of the *oil questionnaire* to request the average NCV for each secondary product. Based on the responses, the IEA and Eurostat will then evaluate to what extent these values can be used for the energy balances and CO₂ emissions calculations. The Secretariats may decide to recalculate some or all of the standard NCVs (harmonizing those used by Eurostat and the IEA) or they may decide to vary the NCVs by country and possibly over time.

Proposal 7: autoproducer tables

See Proposal 6 for the *electricity and heat questionnaire*.

Decision The tables for inputs to autoproducers will be expanded to include the same products and flows to match the revised list in the *electricity and heat questionnaire*. Specifically, this means adding five new products to Table 6: crude oil, NGL, kerosene type jet fuel, other kerosene and bitumen.

Natural Gas

Ms. Sylvie Cornot-Gandolphe (Energy Diversification Division/IEA) made a presentation on the growing trade of natural gas and LNG. She mentioned problems related to inter-regional trade and the importance of knowing the origin and ultimate destination of the natural gas, citing the problem of the interconnector between the United Kingdom and Belgium.

In the discussion that followed, the Netherlands raised the problem of discrepancies between the contractual and physical flows of natural gas between countries and proposed that the IEA should continue to ask for physical flows. Germany is facing problems in collecting information about imports and exports of natural gas due to the extensive amount of natural gas transiting Germany from Russia and Norway. The problem is connected with EU integration where there are no borders and quality of trade statistics is bad. The United Kingdom is aware of the problem concerning the interconnector with Belgium, but since the custom statistics are bad they have no idea from where Belgium obtained the natural gas and therefore they report it as imports from Belgium. Austria is collecting information about the import and export of natural gas in physical terms through the Regulatory office.

Following this presentation, Mr. Justin Howat (Energy Statistics Division/IEA) presented several proposals for discussion:

Proposal 1: aviation/navigation/fishing and military

See Proposal 4 for the *oil questionnaire*.

Decision: New definitions will be used.

Proposal 2: transfers

A new method for reporting blended natural gas and gas works gas was set out in Special Issue Paper 3.

Decision: A row will be added to Table 1 "from other sources" to allow the reporting of gases that are mixed with the blended natural gas and three rows will be added at the bottom of the supply table to show separately the "from other sources" that are from oil, from coal and from renewables/wastes.. The definition of natural gas will be modified to include substitute natural gas (see Special Issue Paper 3).

Proposal 3: regasification of LNG

The proposed method for reporting regasification was set out in Special Issue Paper 3.

Decision: The definition of imports will be changed to include amounts before regasification. Any liquids (e.g. LPG) recovered or extracted during the regasification process should be included as input from other sources in the *oil questionnaire*. See Special Issue Paper 3.

Proposal 4: gas to liquids

The proposed method for reporting gas to liquids was set out in Special Issue Paper 3.

Decision: In Table 2A, an addition row will be added for energy sector gas-to-liquid plants to capture the energy used during the GTL process. Moreover, the row in the transformation sector "conversion to liquids" will be renamed to "gas to liquids" to avoid confusion with the LNG process.

Proposal 5: regasification

The proposed method for reporting regasification was set out in Special Issue Paper 3. Currently, the energy used in regasification plants is reported in energy sector not elsewhere specified.

During the discussion, Japan indicated that they may have problems reporting this information in the new row.

Decision: In Table 2A, the row in the energy sector for gas liquefaction plants will be renamed to be liquefaction (LNG)/regasification.

Proposal 6: blast furnaces

Currently, any gas used in blast furnaces is reported in energy sector not elsewhere specified.

During the discussion, Japan indicated that they may have problems reporting this information in the new row.

Decision: Add a row for blast furnaces in the energy sector in Table 2A.

Proposal 7: trade origins

Over the past few years, natural gas trade, particularly LNG trade, has been increasing very rapidly due to growing demand. Not only are there new consuming countries, but also many new sources of natural gas and LNG, necessitating a regular review of the origins and destinations.

Decision: Trade origins will be modified to include new exporters. Specifically, this means adding a line for Egypt in the import origin table. The Secretariats will check if any more rows need to be added.

Proposal 8: autoproducer tables

See Proposal 6 for the electricity and heat questionnaire.

Decision The tables for inputs to autoproducers will be expanded to match the flows in the revised list in the *electricity and heat questionnaire*. Specifically, this means adding blast furnaces to the energy sector and separate fishing from agriculture/forestry.

Proposal 9: gas storage capacity

Gas security is becoming an increasingly important energy policy issue in gas-consuming countries. For this reason, it is important that the gas storage capacity and the peak output is known.

During the discussion, Japan indicated that there is no regular survey of gas storage capacities in Japan. Ms. Reece responded that gas storage capacities at LNG terminals are already available and the IEA is receiving them outside the *natural gas questionnaire* but inclusion in the questionnaire would simplify their reporting.

Decision: The joint questionnaires will ask for information on gas storage capacity and peak output data.

Additional issue

Mexico raised the issue of using natural gas for extraction of secondary crude oil via reinjection. This natural gas is later on 100% recovered on marine platforms and in fact is recycled in the system. The amount of this gas is reported as own use in the *natural gas questionnaire*. Norway is using the same technology and facing the same problem with reporting. The IEA recommended bilateral discussions to deal with this problem.

Coal

In an introduction, Mr. Garnier pointed out that coal could be seen as the energy of the past, especially considering the environmental constraints and the Kyoto Protocol requirements. However, coal is widespread around the world, is cheap and new technologies are in place for a "cleaner" coal. The coal share of TPES in 1973 was 25% and in 2002 it was 24%; while for oil, the share in 1973 was 45% and in 2002 it went down to 35%. The opening presentation by Mr. Stephane Lemoine (Chief Operating Officer, ATIC Services) emphasized that coal is a key fuel in the energy market. Coal players decide to purchase coal in line with other fuels (e.g. oil) and, for this reason, a spot market for coal was created. There are still a lot of coal reserves equally distributed around the world. New technologies for liquefaction and "clean" coal use have been developed and are being used around the world. For these reasons, coal use will not be disappearing any time soon, and consequently the coal age is not over.

Following this presentation, Mr. Olivier Lavagne d'Ortigue (Energy Statistics Division/IEA) presented several proposals for discussion:

Proposal 1: anthracite

To harmonize with the IPCC methodology and so that product-specific NCVs can be used, anthracite will be shown separately in the questionnaire.

Decision: A column for anthracite will be added before coking coal.

Proposal 2: coal tar

To harmonize with the IPCC methodology and so that product-specific NCVs can be used, coal tar will be shown separately in the questionnaire.

Decision: A column for coal tar will be added after coke oven coke.

Proposal 3: transfers

Currently, it is sometimes difficult to follow fuels across questionnaires, e.g. for gas works gas. The current row used to report recovered slurries will be expanded to include amounts of other fuel inputs to coal-based products.

Decision: The row "of which recovery" will be renamed "from other sources" and the detailed split from oil, from renewables/wastes and from gas will be requested. The definition of gas works gas will be modified to exclude substitute natural gas (see Special Issue Paper 3).

Proposal 4: liquefaction

Currently, any coal that is used to supply the energy for coal liquefaction is reported in non-specified energy sector.

Decision: A row will be added to the energy sector for liquefaction plants.

Proposal 5: aviation/navigation/fishing and military

See Proposal 4 for the oil questionnaire.

Decision: New definitions will be used.

Proposal 6: autoproducer tables

See Proposal 6 for the *electricity and heat questionnaire*.

Decision The tables for inputs to autoproducers will be expanded to include the new products and flows to match the revised list in the *electricity and heat questionnaire*. Specifically, this means adding anthracite and coal tar as products, liquefaction and blast furnaces to the energy sector and rail and not elsewhere specified to other sectors.

Synthesis and Conclusions

A general discussion occurred at the end of the meeting where countries could raise issues that were of concern to them. Mr. Garnier specifically asked if the participants had any comments on the mix of technical/general presentations, the energy statistics manual, the annual questionnaires or the support that is provided to them by the Secretariats. The discussions have been compiled below by subject.

General format of the meeting

Quite a few countries (including Canada, Denmark, France, New Zealand, the United Kingdom and the United States) indicated that they liked the format of the ESWG. They found that the addition of analytical presentations set the context prior to going into the technical issues and specific questionnaire changes.

Coverage of the questionnaires

Canada brought up the issue of confidentiality and cautioned against adding too much detail to the questionnaires. The United Kingdom asked if there were any items that could be removed from the questionnaires. New Zealand thought that the data should be prioritized and only information that is important should be requested. For instance, they asked if the number of workers in coal mines was still needed. Denmark and Mexico asked that the Secretariats continue their efforts to harmonize the questionnaires with other organizations (Mexico mentioned OLADE and APEC). Japan noted that there is a difference in data requested by the IEA (consumption as deliveries) and what is requested by the UNFCCC (observed consumption). Mr. Garnier answered that increasing harmonization was a key objective of the organisations.

Electronic questionnaires

Austria and the United Kingdom requested that the electronic questionnaires be better tested before being sent out to the countries. The United Kingdom also wanted to be able to print out the questionnaires and asked that all of them include the name of the questionnaire and the table number on each page. New Zealand asked to have more links in the electronic questionnaires (as in the *SLT questionnaire*) so that the lines that were the same would automatically be filled in. Austria indicated that they particularly liked the time series.

Denmark also requested that the Secretariats introduce some tolerance for the errors that are of no importance and insignificant, because correcting them means a lot of work with no real improvement in the data quality. *Note from the Secretariats: unfortunately it is important that rounding errors be resolved in the questionnaires.*

Timing of the changes to the questionnaires

The changes to the questionnaires will be made by the Secretariats and will be sent out in the new questionnaires in July 2005.

Hungary indicated that they will need time to adapt the software they use to extract data for the questionnaires. They will probably not be ready for the changes by the next questionnaire cycle.

The United Kingdom indicated that their surveys for 2004 data are about to be sent out and it is not possible to change them to accommodate all the changes to the questionnaires.

Mr. Garnier reminded participants that the changes proposed were kept to the minimum and that most of them were minor.

Resources in national statistical offices

Canada, France, New Zealand and the United States indicated that the changes to the questionnaires will have budgetary implications and that the people above them were not giving priority to energy statistics. They asked for the IEA's support to raise the level of awareness of the policy makers who control the budgets. Mr. Garnier informed the meeting of the recent decisions of the IEA Governing Board and had these decisions circulated to the entire meeting. The relevant points are reproduced below:

The Governing Board:

- asked IEA Member countries to make energy statistics a priority in their own countries in terms of policy and resources in order to improve the timeliness, coverage and quality of their statistics in line with the call for more transparency,
- asked the Secretariat to inform the Governing Board representatives of particular problems encountered on data quality in their respective countries so that the Governing Board representatives could take the issue up with the appropriate departments.

Mr. Garnier urged the meeting participants to take back this message to their departments.

Legal framework

Mr. Roeland Mertens informed the meeting that Eurostat is in the process of drafting a legal document for EU statistics that will be presented to the Commission. This legal footing should help the national statistical offices to get more resources for energy statistics.

Energy statistics manual

Several countries indicated that they thought the new energy statistics manual was very useful and thought that it would help to improve the understanding of staff filling in the questionnaires.

Denmark would have liked for energy prices to be included in the manual. They felt that prices were difficult to collect and would have liked to have a section on "good practice" for collecting prices.

Austria wanted to have an electronic copy of the manual. Mr. Garnier explained that only a PDF version was available and that it was included on the CD that was distributed to the meeting and is available on the IEA website.

United Kingdom pointed out the manual would need to be revised to take into account the changes being made as a result of the ESWG.

Mr. Garnier added that the manual is currently being translated into French and German by Eurostat. Russia requested that it also be translated into Russian. *Note from the Secretariats: for the moment, there is no budget for a Russian translation.*

Requests for follow-up meetings

Russia and the United Kingdom would like the IEA/Eurostat/UNECE to have another training workshop on how to fill in the questionnaires.

The Czech Republic wanted to know how other countries collect their data and thought that a workshop on best practice in energy statistics collection would be very helpful.

Other general comments

Denmark indicated that not only were they a data provider to the IEA and Eurostat, they were also a user. They expressed their appreciation for the on-line data access that is provided to member countries.

The United Kingdom wanted more information to be available on the IEA internet. They suggested that the release dates for the various publications be posted. Mr. Garnier also indicated that he would consider starting again to do a statistics newsletter if countries thought that this would be helpful.

The United Kingdom also asked that all IEA data to be made available for free as is the case of the Eurostat data. Mr. Garnier explained that this issue has been and will continue to be discussed, but that for the moment it was not possible to make all the data free of charge since part of the publication revenues financed the IEA budget and the Statistics Division contributed a large part of the revenues. The IEA has, however, made progress on this issue and a lot more data are now available on the IEA website free of charge.

Russia felt that five years was too long an interval between ESWG meetings. Mr. Garnier explained that this was a compromise between changing data needs and resource implications coming from questionnaire changes.

Mr. Garnier thanked all the participants for their inputs and strong involvement in the discussion. He reminded them that if the organisations needed reliable statistics, it was an answer to the need for such statistics in order to conduct the analysis of the energy situation in their Member Countries and worldwide. When preparing the agenda, the organisations tried to link as much as possible data use and the need for data. He hoped that this will help Member Countries when filling out questionnaires. Mr. Garnier thanked once again all the participants for their support and wished them a safe journey back to their countries.