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## Economic Commission for Europe

Committee on Sustainable Energy

### Expert Group on Resource Classification

Second session  
Geneva, 6-8 April 2011

## Report of the Expert Group on Resource Classification

### I. Introduction

1. The second session of the Expert Group on Resource Classification was held on 6-8 April 2011.<sup>1</sup> The list of documentation for the session is provided in the Annex.
2. This report provides a summary of the decisions reached on the work of the Expert Group at its second session. For background information, the documents and presentations of the second session are available on the United Nations Economic Commission for Europe (UNECE) website.

### II. Attendance

3. The meeting was attended by representatives of the following UNECE member countries: Canada, Czech Republic, Denmark, Germany, Kazakhstan, the Netherlands, Norway, Poland, Romania, Russian Federation, Serbia, Slovenia, Turkey, Ukraine and United States of America.
4. Representatives of Australia, Brazil, China, Colombia, India, Mexico, Mozambique, South Africa and Uganda participated under Article 11 of the Commission's Terms of Reference.
5. From the United Nations system and Specialized Agencies, representatives of the International Atomic Energy Agency (IAEA), the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Statistics Division (UNSD) attended.
6. The following international organizations were represented: Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP), the

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<sup>1</sup> Official documents of the session are available at <http://documents.un.org/>. Presentations delivered at the meeting are available on the UNECE website at: <http://www.unece.org/energy/se/docs/egrc2.html>.

Organisation for Economic Co-operation and Development (OECD)/Nuclear Energy Agency (NEA), and the International Energy Agency (IEA). A representative of Eurostat also participated.

7. Representatives of the following non-governmental organizations participated: American Association of Petroleum Geologists (AAPG), Committee for Mineral Reserves International Reporting Standards (CRIRSCO), European Association of Geoscientists and Engineers (EAGE), European Federation of Geologists, Euracoal, German Hard Coal Association, International Accounting Standards Board (IASB), Society of Petroleum Engineers (SPE), Society of Petroleum Evaluation Engineers (SPEE), Underground Coal Gas (UCG) Association, and World Petroleum Council (WPC).

8. In addition, representatives from the private sector and academia attended.

### **III. Opening of the session**

9. The session opened with a welcome address by the Director of the Sustainable Energy Division of UNECE, who highlighted UNECE's focus on sustainable energy supply. He noted sustainability has three distinct components: the first is economic, whereby investment and consumption decisions are made in a framework of sensible economic and environmental policy; the second is environmental, sustainable resource use meets human needs while preserving the environment so that the requirements of today and of future generations can be met; and the third is social/political, whereby policies and programmes are sustained over time because they are perceived as working for the welfare of society and are therefore supported by the public. In closing, he drew attention to the key goal of the meeting to discuss and receive feedback on the draft generic specifications for application of the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (UNFC) of 2009. He acknowledged the efforts of the Specifications Task Force since the first session.

### **IV. Adoption of the agenda (agenda item 1)**

10. The provisional agenda as contained in the document ECE/ENERGY/GE.3/2011/1 was adopted without amendment.

### **V. Officers (agenda item 2)**

11. A new Bureau was elected at the first session of the Expert Group hence it was *agreed* that the membership should remain unchanged.

12. The Bureau was confirmed as: Mr. Michael Lynch-Bell (United Kingdom) as Chair, and Ms. Karin Ask (Norway); Mr. Fatih Birol (IEA), Mr. Ferdinando Camisani-Calzolari (CRIRSCO), Mr. David Elliott (Canada), Ms. Mucella Ersoy (Turkey and Coordinator of the Minerals (including coal) Stakeholders), Mr. Timothy Klett (United States of America), Mr. Kjell Reidar Knudsen (Norway), Mr. Ian Lambert (Australia), Mr. David MacDonald (United Kingdom), Mr. Yuri Podturkin (Russian Federation), Mr. James Ross (United Kingdom), Mr. Tim Smith (SPEE) and Mr. Jeffrey Tenzer (SPE) as Vice-Chairs.

### **VI. Opening remarks from the chair (agenda item 3)**

13. The Chair opened the meeting by welcoming participants and, in particular, the large number of attendees taking part for the first time. He observed that the level of interest in and support of UNFC-2009 and the Expert Group appeared to be growing worldwide.

14. The Chair then provided an update on the events he had participated in since the first session to promote UNFC-2009 and the Expert Group:

(a) International Workshop “UNFC-2009 – Theory and Practice”, Warsaw, Poland, 21–22 June 2010;

(b) Joint State Commission on Mineral Resources of the Russian Federation (GKZ) and CRIRSCO Seminar “Russia and International Mineral Reserves/Resources Standards”, Moscow, Russian Federation, 27 September 2010;

(c) Eighth Annual Global Reserves Summit, London, United Kingdom, 6-8 October 2010;

(d) AAPG European Region Annual Conference, Kiev, Ukraine, 17-19 October 2010;

(e) Consultations with the Mexican National Hydrocarbon Commission (CNH), Mexico, 15 November 2010;

(f) Nineteenth Session, UNECE Committee on Sustainable Energy, Geneva, 25 November 2010; and

(g) Joint SPE and GKZ Petroleum Reserves Estimation Workshop, Moscow, Russian Federation, 28–30 March 2011.

15. A number of Vice Chairs also delivered presentations on the UNFC at events worldwide.

16. The Chair advised participants that since the first session of the Expert Group, the work of the Bureau had been conducted through two meetings, six conference calls and regular e-mail correspondence.

17. The Chair thanked the Bureau members and their alternates for their efforts. He also thanked the Specifications Task Force, and in particular its Chair, James Ross, the Communications Sub-Committee and the Task Force on the UNFC and Recipient Reservoirs for the work undertaken since April 2010.

## **VII. Introduction of participants (agenda item 4)**

18. A tour de table was conducted during which all participants introduced themselves and identified their key goal for the meeting.

## **VIII. Activities and priorities of the Committee on Sustainable Energy and matters for consideration by the Expert Group (agenda item 5)**

19. The secretariat provided a summary of the decisions taken by the Committee in relation to the Expert Group (ECE/ENERGY/84, paragraph 25).

## **IX. Review of the programme of work for 2010-2011 (agenda item 6)**

20. The Chair provided a brief overview of the programme of work for 2010–2011 as agreed at the first session and contained in the meeting report (ECE/ENERGY/GE.3/2010/2). He highlighted the key issues: the priority work of the

Specifications Task Force Phase Two; mapping of the UNFC to other classification systems; testing of the UNFC by members of the Expert Group; establishment of the Communications Sub-Committee and promotion of the UNFC through conferences, workshops, articles and technical papers; the work of the Task Force on UNFC and Recipient Reservoirs; and, ongoing support of the IASB Extractive Activities Research Project.

## **X. Specifications for the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 (agenda item 7)**

21. The Chair of the Specifications Task Force Phase Two provided an update on the work carried out by the Task Force since its establishment in June 2010. The members are Mr. Ferdinando Camisani-Calzolari, Mr. Daniel Diluzio, Mr. Roger Dixon, Mr. David Elliott, Mr. Timothy Klett, Mr. Kjell Reidar Knudsen, Mr. Ian Lambert (supported by Mr. Yanis Miezitis), Mr. David MacDonald, Mr. Yuri Podturkin (supported by the Russian Working Group), Mr. James Ross (Chair) and Mr. Daniel Trotman.

22. The UNFC-2009 specifications development process to date was summarized. The UNFC of 2004 had been revised resulting in the simplified UNFC-2009 with generic definitions only. A survey of stakeholders representing each of the four key areas of application of UNFC-2009 was undertaken requesting their views on what specifications, if any, they considered to be necessary in order that UNFC-2009 would adequately serve their needs. The focus was on users of reserve/resource data. The four areas of application are: international energy and minerals studies; Government resources management; industry business processes; and, financial reporting. The results of this survey are contained in document ECE/ENERGY/2010/8 prepared by the Task Force for the UNECE Committee on Sustainable Energy. The results of the survey demonstrated strong support for the CRIRSCO Template and the SPE/WPC/AAPG/SPEE Petroleum Resources Management System (SPE-PRMS) to provide the preferred commodity-specific basis for application of UNFC-2009, with a need to consider some form of “linkage” mechanism. Some respondents stated that a number of key stakeholder issues are not currently addressed in the CRIRSCO Template and/or SPE-PRMS and these should either be accommodated by modification/addition to the CRIRSCO Template and/or SPE-PRMS and/or addressed by developing generic specifications for UNFC-2009.

23. Clarity was provided on the difference between specifications and guidelines. Specifications set out the basic rules that are considered necessary to ensure an appropriate level of consistency in application of the UNFC. They provide additional instructions on how the generic definitions must be applied in specific circumstances including, where appropriate, commodity-specific rules. Guidelines provide the underlying detailed guidance that technical and commercial experts can refer to when undertaking resource estimates in accordance with a classification system. Guidelines are not mandatory rules, but provide guidance on appropriate interpretations of the rules (best or alternative practice) in the context of particular circumstances. Guidelines are particularly appropriate when working under functional specifications and are often usefully supplemented by the provision of actual application examples. Following the guidelines will, however not relieve the preparer from the responsibility of complying with the definitions and specifications. CRIRSCO has agreed to be responsible for developing the commodity-specific specifications for UNFC-2009 for solid minerals and SPE, via a Memorandum of Understanding with UNECE, has agreed to develop the petroleum-specific specifications. The Expert Group is responsible for conducting the due process through which the Expert Group may recommend or not the application of the specifications generally, and through

which each individual stakeholder may accept or reject the implementation of them under their authority. The Expert Group is responsible for developing and recommending generic specifications, if required.

24. It was noted that two draft documents had been prepared and circulated to the Expert Group prior to the second session as a basis for discussion only. Unofficial working document INF.1 is a draft UNFC-2009 specifications document and unofficial working document INF.2 is a draft report documenting the Task Force process. Both documents once finalized will be subject to a public comment period.

25. The Expert Group then focussed on addressing the following issues: the options for developing a linkage mechanism between UNFC-2009 and the CRIRSCO Template/SPE-PRMS; the nature of the relationship between UNFC-2009 and other classification systems; and the need for generic specifications for UNFC-2009. It was emphasized that these three issues are linked and cannot be addressed in isolation. Feedback was provided by meeting participants on these issues. There was consensus that generic specifications are needed for UNFC-2009, which should be simple albeit still detailed enough to ensure the objectives of the Classification can be met. The need for specifications that ensure consistency, coherence and comparability in the quantities reported under UNFC-2009 was emphasized. Other feedback included: to ensure the generic specifications do not duplicate or contradict what is already contained in the CRIRSCO Template and the SPE-PRMS; that generic specifications requiring professional affiliation as part of a proposed minimum standard for a Competent Person reporting quantities under UNCF-2009 may be impractical and could also be counterproductive; the preferred alignment route is through the CRIRSCO Template and the SPE-PRMS; bridging documents are needed from the CRIRSCO Template to UNFC-2009 and from the SPE-PRMS to UNFC-2009; to ensure that documents are kept simple – there was a perception that because UNFC-2009 includes 40 classes the system is complicated, however clarification was provided that not all classes are required to be used. From the feedback provided it was also apparent that confusion exists over what is a specification and what is a guideline. Discussion also focussed on the needs of national/Government reporting and financial reporting. Caution was voiced for the need to avoid disclosure issues in the specifications; reporting and disclosure issues are best dealt with by regulators. A number of countries expressed interest in potentially reporting under the UNFC in the future.

26. It was noted that the Specifications Task Force met on a number of occasions at the time of the Expert Group session. As a result of these discussions, the Task Force agreed on a provisional text regarding the relationship between UNFC-2009 and CRIRSCO/SPE, notably “In accordance with the existing agreements with CRIRSCO and SPE, they have provided the commodity-specific specifications for minerals and petroleum via the CRIRSCO Template and SPE-PRMS. Along with the Generic Specifications, these provide the foundation and keystones for consistent application of UNFC-2009. Other classification systems may be used with UNFC-2009 by mapping through the CRIRSCO Template/SPE-PRMS, or by mapping directly to UNFC-2009. In either case, the mapping must comply with all UNFC-2009 definitions and Generic Specifications to the satisfaction of the Expert Group on Resource Classification. Additionally, it must be demonstrated to the satisfaction of the Expert Group on Resource Classification that there is no material difference between estimates resulting from the application of the mapped classification system and the CRIRSCO Template/SPE-PRMS.”

27. It was *agreed* that the future work of the Task Force will focus on the following key tasks: finalizing both the generic specifications for the application of UNFC-2009 and the accompanying explanatory report; preparation of bridging documents between the CRIRSCO Template and UNFC-2009 and between SPE-PRMS and UNFC-2009; preparation of a glossary of terms for inclusion as an annex to the generic specifications

document; and issuing the specifications documents developed by the Specifications Task Force for a public consultation. Completion of these tasks will require the Task Force to assign sub-groups.

28. The Task Force and, in particular, its Chair, were thanked for their efforts and commitment in progressing this work.

## **XI. Technical Advisory Group (agenda item 8)**

29. The Chair introduced this item, noting that the Bureau discussions previously envisaged to take place after the first session had not progressed due to the work of the Specifications Task Force taking priority.

30. The Chair then outlined the key governance issues that would need to be addressed during the establishment of the Technical Advisory Group: membership, including the number of members, the need for representation from both the minerals and oil and gas sectors, the selection process for new members, and the period of membership; the selection process for the Chair and period as Chair; the mandate, the terms of reference; the frequency of meetings; the openness of meetings; the publication of meeting minutes; and the need for extrabudgetary funding.

31. It was *agreed* that establishment of the Technical Advisory Group, including preparation of any necessary documentation, should be progressed once the specifications for UNFC-2009 are finalized.

## **XII. Case studies (agenda item 9)**

32. The Chairman introduced this item, noting that testing of the UNFC was a key component of the programme of the work of the Expert Group. Only through testing and use, would areas of improvement in UNFC-2009 be identified.

33. A representative from Geoscience Australia delivered a case study from the Australian Government perspective entitled “Providing greater granularity for national reporting and correlation with UNFC-2009”. A strategic (long-term) perspective of the mineral resources likely to be available for mining is a prerequisite for formulating sound policies on resources and land access. As with most other countries with a significant mining sector, Australia maintains a national inventory of its mineral stocks. The need was highlighted to map the various classification and reporting systems for mineral and energy resources to a common base to: clarify similarities/differences between the systems; enable comparisons between countries’ inventories; and facilitate better estimates of total world stocks. The speaker noted this should be done by mapping the various national classifications/reporting systems in current use to UNFC-2009. Australia’s key national reporting category is Economic Demonstrated Resources (EDR), which is considered to provide a reasonable and objective indication of what is likely to be available for mining in the long-term (approximately 25 years). Further sub-division of EDR is currently being trialled, including to facilitate international comparisons. How these EDR sub-divisions map to UNFC-2009 was outlined.

34. The General Director of GKZ provided details of two case studies, one applying UNFC-2009 to a copper/nickel deposit in the country and the other to an oil field. Comparisons were made of the mineral quantity and the hydrocarbon quantity estimated by applying the Russian Classification and UNFC-2009.

35. A representative from the Norwegian Petroleum Directorate (NPD) delivered a presentation on the “Potential Application of UNFC-2009 in Government Resource

Management” using an example from Norway. He outlined why resource classification is an important part of NPD’s work, explained a number of the practical challenges in applying the UNFC to real data, highlighted the benefits NPD has seen from application of the UNFC, and outlined future work plans. NPD announced it has just launched a joint pilot project with Statoil that will involve classifying a few of the “difficult projects”, relating to fields and discoveries, with a view to investigating which additional accompanying information is needed for each project to arrive at the correct classification. Statoil will verify if such information already exists in its databases or if special work processes need to be established to generate the necessary information. The outcome of the pilot project will provide valuable experience on how reporting to NPD will be carried out in the future, if it is decided that the UNFC will be the mandatory classification system for reporting to the Norwegian authorities on a project by project basis, and also how quickly such a possible move to the UNFC could be achieved. An update on the pilot project will be provided at the third session of the Expert Group.

36. The Chairman of the State Commission of Ukraine on Mineral Resources provided an update on the status of implementation of the UNFC in Ukraine, including the challenges and success following 14 years of implementation. Ukraine was the first country to adapt its classification of mineral reserves and resources to the UNFC of 1997.

37. The importance of testing the UNFC through case studies was underlined. It was *agreed* that a series of case studies applying UNFC-2009 to both mineral deposits, oil and gas fields should be issued as a UNECE publication, preferably in all United Nations languages.

38. The next two presentations focused on contingent resources. The first, delivered by the representative of BP, addressed the importance of progressing contingent resources in order to deliver on sustainable production and maximize the value of oil and gas deposits. For extractive industries, sustainability means ensuring there is a continuous supply of hydrocarbons or minerals to replace current production. The implication of this for UNFC-2009 (or any other classification system) is there should be a fourth dimension, time – volumes need to be continually moved forwards. If sustainable development is to be achieved the initial definitions must include the entire resource base otherwise there is the possibility to lose potential in the future, e.g. by under sizing facilities; over-conservatism may lead to many lost opportunities. Uncertainty analysis, in this case, needs to look at all aspects, subsurface, the project itself and commerciality to ensure everything aligns with the E, F and G axes of the UNFC. It was concluded that UNFC-2009 with its focus on economic viability, technical feasibility and geologic endowment meets the needs of businesses and nations in trying to define resources and projects.

39. The Chief Petroleum Adviser of the Alberta Securities Commission (ASC) provided an overview of the reviews undertaken by ASC of the evaluations of contingent resources carried out by a number of companies and evaluators. The presentation covered: the number of companies that reported contingent resources, volumes and values during the period December 2009 to November 2010, noting that ASC has seen an increase in the number of companies reporting contingent resources; what contingent resources are; types of contingencies; other issues, including use of analogs, extrapolation, “technology under development”; and the current lack of, and need for, guidelines on contingent resources to promote consistency and improve disclosure generally.

### **XIII. Communications Sub-Committee (agenda item 10)**

40. The Chair of the Communications Sub-Committee provided an interim report (ECE/ENERGY/GE.3/2011/6), covering the mandate, membership, communications and

education strategy, current activities, events attended in 2010 and 2011, and future events and work plans.

41. The agreed Communications and Educations Strategy for the Expert Group encompasses: conferences and workshops; the relationship with other industry bodies and associations; publications, technical journals and articles; media; website; and membership of the Expert Group. A promotional poster in English and Russian and an explanatory leaflet on the UNFC and Expert Group have been prepared. Filming for promotional videos to explain the UNFC and the Expert Group took place during the meeting, the final videos will be posted to the UNECE website in May.

42. An overview was provided of the “UNFC Resource Classification for Oil, Gas and Minerals” Workshop held in London, 7–8 February 2011. The event, which was organized by AAPG-Europe in cooperation with UNECE, focussed on three key objectives: (i) to review the current state-of-the-art in petroleum resource classification; (ii) to explain and discuss the potential for UNFC-2009 to provide a global communications tool that can be applied easily without undermining or replacing SPE-PRMS or the CRIRSCO Template; and, (iii) to critically assess the application of SPE-PRMS to unconventional petroleum resources, including both shale gas and solid petroleum resources that are extracted using mining techniques, which has led to a blurring of the traditional boundary between conventional petroleum resources (produced as fluids) and mineral resources (extracted as solids).

43. Members of the Expert Group were encouraged to identify events at which a presentation on the UNFC could usefully be delivered and also to volunteer to deliver such presentations.

44. The Chair, on behalf of the Expert Group, expressed appreciation to the Communications Sub-Committee for its efforts to date.

45. Projects and planned events in 2010 and 2011 to promote and/or test the UNFC were then discussed, including:

(a) *International Workshop on “UNFC Theory and Practice”, Warsaw, Poland, 21–22 June 2010*

A representative from the Polish Geological Institute – National Research Institute (PGI-NRI) provided an overview of the Workshop organized in Warsaw, June 2010. The event, which was co-organized by PGI-NRI and UNECE in cooperation with the Department of Geology and Geological Concessions of the Polish Ministry of the Environment, successfully served to build increased capacity on UNFC-20099 in Poland. Practical application of the UNFC to selected deposits in the Polish mining sector was discussed in detail, as were the significant efforts of Poland to harmonize its terminology with that of the UNFC.

(b) *EuroGeoSource Project*

The Project Coordinator provided a status report following one year of implementation of the project.<sup>2</sup> This three-year European Commission funded project aims to provide data on energetic and non-energetic mineral resources through an internet portal to support energy and minerals planning in Europe. By 2012, data will be available on-line on occurrences of metallic ores, industrial minerals, ornamental stones, oil, gas, etcetera in at least ten European countries. The project is structured in eleven work packages, of which work package four addresses interoperability and data exchange formats to facilitate creation of the format for delivery of the key economic attributes for oil and gas and mineral resource

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<sup>2</sup> <http://www.eurogeosource.eu/>

deposits. Under this work package, the different classifications and categorizations used by the partners will be compared and mapping between the key parameters of the classifications will be undertaken. It was confirmed that UNFC-2009 will be used as the mapping tool.

(c) *34<sup>th</sup> International Geological Congress, Brisbane, Australia, 5-10 August 2012*

The Secretary General of the Congress provided an overview of the event. One of the 34 Congress themes focuses on mining and mineral resources. As part of this theme, a symposium is being organized on “Resource and reserve reporting, international codes and the valuation of mineral assets”, which will include a presentation on the UNFC. More details are available on the Congress website.<sup>3</sup>

(d) *Other workshops, projects or events incorporating a session or presentation on the UNFC*

(i) The representative of UNSD provided an overview of work being undertaken on new guidelines for energy statistics. UNSD has developed the International Recommendations for Energy Statistics (IRES), in cooperation with the Oslo Group on Energy Statistics and the Intersecretariat Working Group on International Energy Statistics (InterEnerStat), which was convened by the IEA. IRES was adopted by the Statistical Commission in February 2011 and now forms the basis for all future data collection for energy statistics.

UNSD is currently drafting the System of Environmental-Economic Accounting for Energy (SEEA-E). This work, which is expected to be completed in 2012, is being carried out in cooperation with the London Group on Environmental Accounting, the Oslo Group on Energy Statistics and InterEnerStat. The SEEA-E will provide the international statistical standard for energy and energy-related air emission accounts – it consists of agreed concepts, definitions, classifications and inter-related tables and accounts. The drafting of the SEEA-E will provide input for the revision of the SEEA and in particular will assist in solving the list of issues related to energy accounts in the research agenda that are needed to elevate the SEEA to the level of an international statistical standard. The UNFC is currently covered in Chapter 3 “Physical Asset Accounts” of the draft SEEA-E. However, with regard to the classification of energy resources, the SEEA-Energy framework focuses on assets and deposits and not on projects, but this is not felt to pose a problem with regard to the use of the project-based UNFC. The revised UNFC of 2009 is considered to be appropriate and will be incorporated, but only at a high level. Only known deposits and not potential deposits will be included in the environmental accounting. The current proposal for a UNFC-based classification in the SEEA-Energy accounting framework is to provide a distinction between commercially recoverable energy resources, potentially commercially recoverable energy resources and non-commercial and other known deposits.

An update on InterEnerStat was also provided. The key goal of InterEnerStat is to increase cooperation between international and regional organizations dealing with energy statistics so as to improve statistics. By the end of 2010, an agreement had been found for the definitions of all the products and flows. These definitions have been used in IRES and have become the basis for the Standard International Energy Product Classification (SIEC), which forms Chapter 3 of IRES. It was noted that these harmonized definitions pave the way for harmonized questionnaires among

<sup>3</sup> <http://www.34igc.org/>

organizations, decreasing the burden for countries and improving transparency and quality. The future work of InterEnerStat will focus on the harmonization of questionnaires, as well as joint training sessions.

(ii) The representative of IAEA provided an overview of the two-day consultation meeting held 4–5 April 2011 in Geneva to test and map UNFC-2009 for nuclear fuel resources. Both uranium and thorium resources were addressed. During the meeting a review of the existing nuclear fuel resource classification scheme vis-à-vis UNFC-2009 was undertaken and a preliminary mapping scheme was formulated, which will be discussed by the Joint IAEA-NEA Uranium Group. The key outcomes of the consultation meeting were: an agreement to map and test UNFC-2009 for nuclear fuel resources in national environments; a recommendation to organize regional workshops and training courses on UNFC-2009; an agreement to provide feedback to the Expert Group on improvements to UNFC-2009 and also on the formulation of generic specifications and guidelines applicable for nuclear fuel resources; and, a recommendation to publish a joint UNECE-IAEA mapping report based on the application of UNFC-2009 to nuclear fuel resources. An IAEA Technical Cooperation Inter-regional Project on uranium production, including regional workshops, training programmes, and fellowships was outlined. The project, which will include a focus on UNFC-2009, is expected to start in 2012 and will involve some 40 participating IAEA Member States.

(iii) A representative from PGI-NRI introduced the International Conference on "EU 2020 Strategy in Mineral Commodities Management" to be held in Warsaw, Poland, 19–20 September 2011. The event, which immediately precedes the 31<sup>st</sup> EuroGeoSurveys General Assembly, aims to highlight different ways and approaches to integrating the concept of responsible and sustainable use of mineral resources in accordance with Europe2020, the European Union's growth strategy for the coming decade. A presentation on UNFC-2009 is included in the Workshop programme.

(iv) The representative of Turkish Coal Enterprises (TKI) delivered an overview of the "International Workshop on the UNFC for Minerals" that will be held in Ankara, Turkey, 29–30 September 2011. The event will be jointly organized by UNECE, the General Directorate of Mining Affairs of the Ministry of Energy and Natural Resources (MIGEM), TKI and the Turkish General Directorate of Mineral Research and Exploration (MTA). Amongst the goals of the event are to extend knowledge on UNFC-2009 in Turkey and assess the possibility of applying UNFC-2009 to mineral resources in Turkey. Whilst the event will be focussed primarily on minerals, there will be at least one presentation related to the application of UNFC-2009 to petroleum.

(v) The representative of the Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) advised that its 48th annual meeting to be held in Bangkok, Thailand, 6–10 November 2011, offered a useful opportunity to organize a UNFC Workshop for participating CCOP member countries. It was *agreed* that this proposal should be explored.

(vi) The representative of the Ministry of Mines of India outlined the country's application of the UNFC of 1997 to the minerals sector and current efforts to update to UNFC-2009. He expressed interest in a national UNFC workshop and indicated he would contact the secretariat in due course.

(vii) A representative of the National Hydrocarbons Commission of Mexico expressed interest in the UNFC being applied in Mexico, for which a workshop

would be beneficial. It was *agreed* to explore the potential for organizing such an event in 2012.

(viii) The possibility to organize a UNFC Workshop for the African region was discussed. It was *agreed* that this should be explored subject to availability of resources.

(ix) The representative of UNCTAD drew attention to the first Expert Meeting on the implementation of a Natural Resources Information Exchange (NRIE) held in Benin, July 2010, at which representatives of 24 African countries discussed sharing information on natural resources. The NRIE system was originally called for by the 13th African oil, gas, mines, trade and finance conference organized by UNCTAD in Mali, 2009. The project aims to increase the positive contribution of natural resources to African populations and help raise living standards on the continent. Attention was also drawn to the 15th Africa OILGASMINE Trade and Finance Conference and Exhibition coordinated by UNCTAD in Congo, 7–11 November 2011.

(x) Participation at future meetings of the ASEAN Council on Petroleum (ASCOPE) was encouraged. It was noted the Secretary-in-Charge of ASCOPE was invited to attend the second session of the Expert Group, but that he had been unable to do so due to prior commitments.

(e) *Journal, publications or technical papers in which an article on the UNFC could be published*

46. It was proposed that an article on the UNFC could be usefully submitted to the magazine of the State Commission on Mineral Resources of the Russian Federation, GeoExPro, and the Mining Engineering Journal. The Communications Sub-Committee was *requested* to prepare and submit these articles and also identify additional journals etcetera.

#### **XIV. Use of the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 for Classifying Injection Projects (agenda item 11)**

47. The Chair of the Task Force on the UNFC and Recipient Reservoirs introduced this item, noting it had been agreed at the first session of the Expert Group that the Task Force should be established to explore if and how UNFC-2009 could be used in classifying recipient reservoirs or injection projects, such as hydrocarbon gas injection, carbon dioxide injection and disposal/storage of other waste products/gases.

48. The membership of the Task Force was noted to be: Ms. Karin Ask (Statoil and Chair), Ms. Eva Halland (Norwegian Petroleum Directorate) and Mr. Martin Hubbig (RWE Dea AG).

49. The main focus of the Task Force had been to review examples of other classifications that have been proposed by various groups and stakeholders, including the Techno-Economic Resource-Reserve pyramid proposed by the Carbon Sequestration Leadership Forum, the CO2CRC classification system for carbon capture and storage; the “New Classification System for Evaluating CO2 Storage Resource/Capacity Estimates” published at an SPE International Conference on CO2; and a proposal from the United States Department of Energy for a Geologic Storage Framework.

50. The Task Force outlined its future work plans: to identify the main stakeholder groups and clarify what their needs and expectations are; to investigate how, for example, oil and gas companies classify and evaluate the maturity of their gas injection projects

today; to review the Underground Gas Storage Study prepared by the UNECE Working Party on Gas and consider relevant elements in this study; and to propose how to adapt the UNFC-2009 for use on injection projects. It was *agreed* that the Task Force should proceed with this proposed work, including the preparation of relevant documentation.

51. The Secretary of the UNECE Working Party on Gas provided an overview of the Study on Underground Gas Storage in Europe and Central Asia, noting the chapters of most relevance for the Task Force. He advised the unique web-based database application developed for the Study was now in place and that the survey for data collection would be launched in May 2011, with the first results anticipated in the first half of 2012. It was *proposed* that the Working Party on Gas and the Task Force should seek areas of collaboration and cooperation.

## **XV. Update on the International Accounting Standards Board Extractive Activities Research Project and financial reporting (agenda item 12)**

52. The representative from the United States Securities and Exchange Commission (SEC) participated by videoconference and provided feedback on the first year of compliance with the 2009 SEC Oil and Gas Reporting Rules, for which the first disclosures began in March 2010. The major changes to the rules were outlined. In adopting the new rules, the SEC's key goals were:

- (a) Investor protection;
- (b) Comparability;
- (c) Increased transparency for investors; and

(d) Long-term application of the rules – through the concept of principles-based rules, the SEC is hoping that adequate flexibility has been incorporated such that the rules will not need regular revision e.g. due to a new technology or methodology.

53. Feedback was then provided based on the disclosures received during the previous year, including: the tabular presentation now required to summarize oil and gas reserves at the year-end; the application of “reliable technology”; the requirement to report reserves separately by continent; the option to disclose both probable and possible reserves; the preparation of reserves estimates or reserves audit, where full disclosure of the technical qualifications of the primary person or third party is needed; the requirement to disclose proved undeveloped reserves (PUDs) at year-end, including any material changes, investments and progress in converting PUDs to proved reserves, and to disclose and address any PUDs that have been on a company's books for more than five years with an explanation of why this is taking longer than five years. The SEC is considering the possibility of issuing more guidance.

54. The representative of the law firm Sullivan and Cromwell provided an overview of current issues relating to the reporting of reserves under the 2009 SEC Oil and Gas Reporting Rules. The filings of some 32 “large cap” (over US\$5 billion capitalization) SEC reporting companies were reviewed. It was noted that 2009 was the first year of reporting under the new SEC rules and during 2010 the SEC had issued comment letters to registrants on their 2009 annual reports.

55. The areas of focus of the SEC in the 2010 reviews were: (a) PUDs beyond five years — based on the amounts disclosed as converted to developed in the most recent year, the SEC questioned whether the remainder would in fact be developed in five years and was looking for acceptable justifications such as environmental considerations, drilling

programmes constrained by governmental approvals, and physical constraints or other factors beyond the company's control. Nearly all companies disclose some amount of PUDs that will be developed after five years.; (b) more disclosure about material reserve additions – the SEC was seeking more detail than is shown in the reserves movements table; (c) geographic regions – the SEC challenged some of the groupings used; (d) the same level of (but separate) disclosure for reserves held by equity accounted entities was asked for; (e) disclosure of remaining terms of leases and concessions for the disclosed acreage was also asked for; and, (f) the SEC challenged the language used in some audit reports, e.g., the concept “generally accepted engineering and evaluation principles”. On the issue of reserve changes, reasons were requested for new reserve additions. Few companies elected to provide optional disclosures: only four companies in the surveyed group disclose probable reserves, none disclose possible reserves (although one provided contingent reserves), and only three companies disclose reserves sensitivity based on different price scenarios. Questions were posed, including: whether the new SEC-based disclosures provide a better picture of oil and gas reserves when few companies are providing estimates of probable and possible reserves?; if the disclosures regarding reliable technology provide meaningful comfort as to the reliability of estimates?; why effectively is a five-year limit being placed on PUDs?; and, how meaningful for investors are some of the other required disclosures, such as wells data, acreage data, standardized measure of discounted cash flow?

56. The Director of Implementation Activities of the IASB provided an update on the IASB Extractive Activities Research Project and the Agenda Consultation process. He noted that the Discussion Paper “Extractive Activities” was issued for public comment in April 2010, with a deadline for comments of 30 July 2010. A summary of the comments received was presented to the IASB Board in October/November 2010. The Discussion Paper proposed that the scope of an extractive activities standard should include only upstream activities for minerals, oil and natural gas. This represents a change from International Financial Reporting Standard 6 (IFRS 6) *Exploration for and Evaluation of Mineral Resources*, which includes minerals, oil, natural gas and similar non-regenerative resources within its scope. The Project team decided against a broader scope because this might result in the need to develop additional definitions, accounting models and disclosures. The importance the IASB places on seeking to increase consistency and comparability for the reporting of similar transactions and issues was highlighted. It was noted the IASB Discussion Paper proposed one single IFRS for both industries (minerals and oil and gas), which might be based on one single framework, or two equivalent frameworks.

57. The feedback from constituents on the Discussion Paper showed support for the use of industry-based definitions for disclosures. Concerns were though raised with regard to incorporating “third-party” definitions (such as from SPE and CRIRSCO) into an IFRS for extractive activities and how this would be managed since in many countries IFRSs are incorporated into company law. Other concerns raised included: audit implications since anything required by an IFRS is then subject to audit by the financial statement auditor; the additional costs that would be imposed through introduction of such an IFRS; the feasibility of meeting filing deadlines; duplicate or inconsistent requirements compared to those of regulators; and, disclosure of reserve sensitivities.

58. IASB will conduct a public consultation, which is anticipated to start in June/July 2011 for a period of three to four months, on what projects it should add to its active agenda. If enough feedback is received in support of an IFRS for extractive activities then the Board will consider adding it to its agenda; such a process would take around one year. An exposure draft would then need to be prepared and issued for public comment, a process that would take at least 18 months. It was estimated that should an IFRS for extractive activities be added to the Board's agenda it would take at least three years before a standard

was issued, following which there would be 18 months lead time between issuing and mandatory application.

59. The Expert Group was strongly encouraged to provide feedback during the IASB's upcoming public consultation process on its future work and to advise whether an IFRS for extractive activities is important/needed and, if so, what its scope should be, for example, recognition, measurement and disclosure or only disclosure?

60. A representative from Ernst & Young provided an overview of the more than 140 responses received to the IASB Discussion Paper on Extractive Activities. Concerns were raised by respondents on a wide range of issues, including with regard to the proposed scope of the standard, however there was broad agreement that if a new IFRS is justified the scope should be specific to upstream activities. Respondents were also in agreement on the need for clarification as to how changes in reserves and resources definitions would be incorporated into a future IFRS. Other responses related to issues, such as, asset recognition and the potential increase in capitalized costs, however there were differing views on the appropriate model to be used reflecting differences in practice in the mining and oil and gas sectors; unit of account; asset measurement with responses focussing on historic cost basis (the majority of respondents agreed that historical cost is the preferred measurement basis) and impairment; and, disclosure – responses largely related to reserves, with the large oil and gas companies advocating optional disclosure of probable reserves, current value disclosures, differences to United States Generally Accepted Accounting Principles, cost/benefit and Publish What You Pay. The responses highlighted the differing views of the mineral and oil and gas sectors, reconciliation of which it was acknowledged would pose a challenge. A low response rate was observed from small and medium sized participants. In closing, the importance of continued engagement by stakeholders with the IASB was emphasized.

61. The Chair drew attention to the Feedback Statement “Consultation Paper on proposed amendments to the Committee of European Securities Regulators’ (CESR) recommendations for the consistent implementation of the Prospectuses Regulation regarding mineral companies”, ESMA/2011/67, published by the European Securities and Markets Authority (ESMA) on 23 March 2011.<sup>4</sup>

62. The meeting *noted* with appreciation the information provided and *agreed* to keep the issue of a potential future IFRS for extractive activities and financial reporting generally on the work programme as appropriate, including any necessary documentation for the third session.

## **XVI. Review of the programme of work for 2011-2012 (agenda item 13)**

63. After discussion and review of the draft proposed programme of work contained in document ECE/ENERGY/GE.3/2011/9, the Expert Group *agreed* on the following programme of work for 2011-2012:

### **(a) Specifications for UNFC-2009**

**Description:** Specifications (or “secondary rules”) are needed for UNFC-2009 in order to ensure an appropriate level of consistency and coherence when it is applied. They provide additional instructions on how the definitions contained in UNFC-2009 must be applied in specific circumstances including, where appropriate, commodity-specific rules. At the first

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<sup>4</sup> [http://www.esma.europa.eu/data/document/2011\\_67.pdf](http://www.esma.europa.eu/data/document/2011_67.pdf)

session of the Expert Group, the Specifications Task Force Phase Two (established by and reporting to the Bureau) was tasked to consider all issues raised by stakeholders that are not currently addressed fully in the CRIRSCO Template and/or the SPE-PRMS and as contained in the final version of the Report of the original Specifications Task Force (ECE/ENERGY/2010/8). Specifically, the Task Force was requested to consider carefully each issue in turn and either: (i) develop a generic UNFC specification to address the issue, for the eventual approval of the Expert Group, but subject to a public comment period; (ii) provide an explanation to the Expert Group to demonstrate that the issue is, or will be, adequately addressed in both the Template and SPE-PRMS based on discussions with CRIRSCO and the SPE Oil and Gas Reserves Committee (SPE OGRC); or, (iii) provide an explanation to the Expert Group to justify why a specification is not considered necessary and/or appropriate for that issue.

**Work to be undertaken:** The Specifications Task Force Phase Two is to continue its work to develop generic specifications for UNFC-2009, in close collaboration with CRIRSCO and SPE. The preliminary draft text of the generic specifications (unofficial room document INF.1 “Specifications for the application of UNFC-200 – draft report prepared by the Specifications Task Force) is to be updated to both reflect comments provided at the second session of the Expert Group and also the feedback from CRIRSCO and SPE scheduled to be received in November 2011. The specifications documents developed by the Specifications Task Force are to be issued for a public consultation. The final text of the specifications document should then be submitted to the Committee on Sustainable Energy for endorsement, following which it should be issued as a United Nations publication in all official languages of the United Nations to facilitate further implementation of United Nations Economic and Social Council (ECOSOC) Decision 2004/233. Other documentation to be prepared includes: a glossary of terms, a document outlining the basis for establishing specifications for the application of UNFC-2009, and bridging documents between the CRIRSCO Template and UNFC-2009 and between the SPE-PRMS and UNFC-2009. Where possible, the documentation prepared by the Task Force should be available for the third session.

#### (b) Technical Advisory Group

**Description:** A Technical Advisory Group is needed to provide assistance and advice on how to interpret, apply and/or map to UNFC-2009 as and when requested, as well as to compile and analyze the results of such initiatives. At the first session of the Expert Group it was agreed that the Bureau should progress establishment of a Technical Advisory Group, including development of a mandate, methodology of operation and rules of procedure, list of deliverables, membership list and potential sources of extrabudgetary funding, for consideration at the second session of the Expert Group.

**Work to be undertaken:** Progress establishment of a Technical Advisory Group once the specifications for UNFC-2009 are finalized and, in particular, identify potential sources of funding. Prepare relevant documentation for review by the Expert Group.

#### (c) Testing of UNFC-2009

**Description:** Widespread testing of UNFC-2009 is essential to ensure the classification meets the needs of its stakeholders and also to ensure it remains current. The Committee on Sustainable Energy has also directed the Expert Group to reinforce its efforts to encourage testing and application of UNFC-2009 as widely as possible and that feedback on this continue to be monitored and reviewed at least every two years.

**Work to be undertaken:** Encourage members of the Expert Group to test UNFC-2009 in their own work environments. Encourage stakeholders to carry out cross-mapping with other systems (e.g. as CRIRSCO and SPE are undertaking with the Russian Federation); ideally this would include government to government mapping, as well as commercial

systems. Results should be compiled and analysed by the Bureau of the Expert Group (until the Technical Advisory Group is established). Results of testing and case studies on the UNFC should be prepared for review by the Expert Group and then compiled in a publication and posted to the UNECE website.

**(d) Communications Sub-Committee**

**Description:** The Expert Group agreed to establish a Communications Sub-Committee at its first session, with a mandate to develop and implement a communications and education strategy to ensure that opportunities to promote UNFC-2009 globally and to deliver a consistent message are maximized, including through conferences, workshops, articles and technical papers. The Sub-Committee was also tasked to assist with identification of experts in countries and organizations not already represented in the Expert Group.

**Work to be undertaken:** The Communications Sub-Committee is to continue its work to promote the Expert Group and UNFC-2009 as per its agreed mandate, with a review of activities to be prepared for the third session of the Expert Group. Subject to resources (human and financial), attention is to be given to organizing national and regional workshops e.g., in India, Mexico, Turkey, sub-Saharan Africa, Latin America and South-East Asia in cooperation with CCOP.

**(e) Use of UNFC in classifying injection projects**

**Description:** The Expert Group commenced research on the potential use of UNFC-2009 in classifying injection projects (e.g., CO<sub>2</sub> storage, natural gas storage or other waste disposal projects). It was agreed at the first session of the Expert Group that a Task Force on UNFC and Recipient Reservoirs would be established by and report to the Bureau to continue to research and develop views on this potential use of UNFC-2009 and identify additional key stakeholders who could provide critical analysis and feedback on the practicality of applying UNFC-2009 for these types of projects.

**Work to be undertaken:** Investigate how, for example, oil and gas companies classify and evaluate the maturity of their gas injection projects today; review the Underground Gas Storage Study prepared by the UNECE Working Party on Gas and consider relevant elements in this study; and propose how to adapt the UNFC-2009 for use on injection projects. An update on any findings is to be provided to the third session of the Expert Group.

**(f) Financial reporting**

**Description:** UNFC-2009 has been designed to meet, to the extent possible, the needs of applications pertaining to financial reporting standards. The Expert Group is working closely with the IASB which has undertaken an extractive activities research project to analyse the unique financial reporting issues applicable to extractive activities and to identify a basis on which a financial reporting model might be developed to address these issues. In 2011, the IASB will carry out a public consultation on its future IFRS work programme, following which the IASB Board will make decision on whether an IFRS for extractive activities should be added to its active agenda. If the IASB decides to add such an IFRS to its agenda, the objective would be to develop an IFRS on accounting for extractive activities that would supersede IFRS 6: Exploration for and Evaluation of Mineral Resources.

**Work to be undertaken:** Continue to support the IASB Extractive Activities Research Project as appropriate. Monitor relevant developments in financial reporting generally that might have an impact on reserves and resources and prepare any necessary documentation for the third session.

(g) **Collaboration and cooperation with other bodies**

**Description:** UNFC-2009 has been designed to meet essential needs in international energy and minerals policy formulation, Government resources management, industry business processes management and capital allocation. This has required close collaboration and cooperation with stakeholders from these four areas of application.

**Work to be undertaken:** Continue to collaborate and cooperate with as wide a range of stakeholders as possible and identify new partners, particularly within non-UNECE member countries.

**XVII. Other business (agenda item 14)**

64. It was *agreed* to hold the third session of the Expert Group on Resource Classification in Geneva, 25–27 April 2012.

**XVIII. Adoption of the report of the meeting (agenda item 15)**

65. It was *agreed* that, as per standard practice, the report of the meeting would be drafted in consultation with members of the Bureau, approved by the Bureau and then circulated to the Expert Group and posted to the UNECE website.

## Annex

### List of documentation for the second session

ECE/ENERGY/GE.3/2011/1	Annotated provisional agenda for the second session
ECE/ENERGY/GE.3/2011/2	Report of the second session of the Expert Group on Resource Classification
ECE/ENERGY/GE.3/2011/3	Not issued
ECE/ENERGY/GE.3/2011/4	Not issued
ECE/ENERGY/GE.3/2011/5	Not issued
ECE/ENERGY/GE.3/2011/6	Interim report of the Communications Sub-Committee
ECE/ENERGY/GE.3/2011/7	Use of UNFC-2009 for classifying injection projects
ECE/ENERGY/GE.3/2011/8	Update on the International Accounting Standards Board extractive activities research project and financial reporting
ECE/ENERGY/GE.3/2011/9	Programme of work for 2011-2012
ECE/ENERGY/GE.3/2011/9/Corr.1	Corrigendum to Programme of work for 2011-2012

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