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COMMITTEE ON SUSTAINABLE ENERGY

Seventeenth session
Geneva, 19-21 November 2008

**REPORT OF THE COMMITTEE ON SUSTAINABLE ENERGY
ON ITS SEVENTEENTH SESSION**

Executive Summary

At its seventeenth session, the Committee on Sustainable Energy focused its energy security dialogue on “Strategic Alliances for Energy Security”, in particular on the cooperation and relationship between international oil companies (IOCs) and national oil companies (NOCs) on energy security strategies. The Committee also reviewed the cooperation and coordination with other bodies, the regional advisory services programme in the field of energy, the cooperation and coordination with other sectoral committees of the Commission, the programme of work in the field of energy for 2009-2010 and the assessment of the programme performance of the sustainable energy subprogramme.

The Committee endorsed the requests by the Ad Hoc Group of Experts on Financing Energy Efficiency Investments for Climate Change Mitigation, the Ad Hoc Group of Experts on Cleaner Electricity Production from Coal and Other Fossil Fuels, and the Ad Hoc Group of Experts on Coal Mine Methane for the renewal of their mandates for a further two years. The mandate of the Ad Hoc Group of Experts on the Supply and Use of Gas was renewed for one year.

The work of the Committee was also presented on 21 November 2008 by the Chairman and Vice-Chairs to the Executive Committee on implementation of the sustainable energy programme of work for the past twelve months and major planned activities for the forthcoming twelve months. Decisions on matters related to the Committee on Sustainable Energy will be presented for endorsement to the Executive Committee on 27 February 2009 (ECE/EX/2009/L.3).

CONTENTS

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance	1-6	3
II. Adoption of the agenda (Agenda item 1)	7	4
III. Election of Officers (Agenda item 2)	8	4
IV. Energy Security Dialogue: Strategic alliances for energy security (Agenda items 3 and 5(a))	9-13	4
V. Cooperation and coordination with other intergovernmental and non-governmental organizations (Agenda item 4)	14	6
VI. Review of activities of the subsidiary bodies of the Committee (Agenda item 5)	15-20	7
A. Steering Committee of the Energy Efficiency 21 Project	16	7
B. Working Party on Gas, Ad Hoc Group of Experts on the Supply and Use of Gas, and Gas Centre	17	8
C. Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology	18	9
D. Ad Hoc Group of Experts on Coal Mine Methane	19	10
E. Ad Hoc Group of Experts on Cleaner Electricity Production from Coal and Other Fossil Fuels	20	10
VII. UNECE regional advisory services programme in the field of energy (Agenda item 6)	21-22	11
VIII. Cooperation and coordination with other sectoral committees of the Commission (Agenda item 7)	23-25	11
IX. Programme of work in the field of energy for 2009-10 (Agenda item 8)	26-29	13
X. Other business (Agenda item 9)	30	13
XI. Adoption of the report of the meeting (Agenda item 10)	31	13

Annexes

I. Overview and Programme Activities (reviewed)	14
II. Revised calendar of meetings of the Committee on Sustainable Energy and its implementing bodies in 2009	21

I. ATTENDANCE

1. The seventeenth session of the Committee on Sustainable Energy was held from 19 to 21 November 2008 with the participation of 214 representatives from the following 36 ECE member States: Albania, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Czech Republic, Estonia, France, Georgia, Germany, Greece, Hungary, Iceland, Israel, Italy, Kazakhstan, Kyrgyzstan, Malta, Netherlands, Norway, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, and United States of America. Representatives of Algeria, China, Guatemala, Iran (Islamic Republic of), Mexico, Qatar and Yemen also participated.
2. Representatives of the United Nations Department of Economic and Social Affairs (UNDESA), United Nations Environment Programme (UNEP), United Nations Framework Convention on Climate Change (UNFCCC), United Nations Industrial Development Organization (UNIDO), International Atomic Energy Agency (IAEA), International Labour Organization (ILO), International Sustainable Energy Organization (ISEO) and Organization for Security and Cooperation in Europe (OSCE) took part. Representatives of the European Commission also participated.
3. The following intergovernmental and non-governmental organizations were in attendance: Central European Initiative (CEI), Centre European Recherche Nucleaire (CERN), Clean Air Foundation, Energy Charter Secretariat, European Environmental Agency, International Center for Research on Biofuels and Patents, International Committee for Coal and Organic Petrology, International Union for Conservation of Nature (IUCN), Regional Cooperation Council (RCC), United Nations Foundation, World Energy Council (WEC) and World Trade Institute (WTI).
4. The Chairperson of the Committee on Sustainable Energy opened the meeting, outlining the format and speakers for the Special Session.
5. The Deputy Executive Secretary, Mr. Paolo Garonna, introduced the first day session on strategic alliances for energy security paying special attention to industry and government roles, on how the cooperation between national oil companies and international oil companies, with government participation, could help to mobilize the capital needed for hydrocarbon investments to enhance global energy security. He also provided comments on the overall session and the work planned for the following three years.
6. The Deputy Executive Secretary outlined the correlation between energy security and sustainable energy policies that had emerged so prominently in the dialogue promoted by ECE during the last year. He also anticipated the afternoon presentations on progress made on two studies. One study is examining how sustainable energy policies can mitigate energy security risks and the role of financial markets on energy security. The second study is focused on perceptions of energy security risk.

II. ADOPTION OF THE AGENDA (Agenda item 1)

Documentation: ECE/ENERGY/77

7. The agenda was adopted without change.

III. ELECTION OF OFFICERS (Agenda item 2)

8. The elected officers were as follows: Chairperson: Mr. Jean-Christophe Füg (Switzerland); Vice-Chairpersons: Mr. Renaud Abord-de-Chatillon (France), Mr. Sigurd Heiberg (Norway), Ms. Barbara McKee (United States of America), Mr. Sergei Mikhailov (Russian Federation), Mr. Laszlo Molnar (Hungary) and Mr. Nick Otter (United Kingdom).

IV. ENERGY SECURITY DIALOGUE: STRATEGIC ALLIANCES FOR ENERGY SECURITY (Agenda items 3 and item 5(a))

Documentation: ECE/ENERGY/2008/1 and ECE/ENERGY/2008/2

9. A special session on “Strategic alliances for energy security” examined how cooperation between national oil companies (NOCs) and international oil companies (IOCs) could help to enhance hydrocarbon investments for global energy security.
10. The session brought together key expert from Governments, energy industries, the financial community and relevant international organizations. Executives from major energy companies, such as Gazprom, E.On Ruhrgas AG, GdF-Suez, Socar and Total, actively participated in the dialogue.
11. The discussants stressed the relevance of the role of Governments in achieving a fiscal and regulatory environment to support the multiple sources of finance investments needed in the hydrocarbon sector.
12. The Committee concluded that:
 - (a) The energy security concerns that have re-emerged over the last few years have spread to the strategic security and foreign policy agenda of countries;
 - (b) These concerns have been aggravated by the global financial crisis, volatility of oil prices, their impact on oil demand and implications for energy efficiency, energy supply and infrastructure investments;
 - (c) Despite the global financial crisis, government leaders remain committed to addressing other critical challenges such as energy security and climate according to the Declaration of the G-20 Summit on the Financial Crisis and the World Economy;
 - (d) Energy security and climate change are increasingly linked to one another in public discourse, long-range planning and policy options for decision-makers largely because of the important impact energy efficiency can have on future energy supply needs;

- (e) There is very significant potential for cost-effective energy efficiency improvements in the ECE region and capital requirements that are so large that only commercial sector investments on a significant scale can actually deliver meaningful results;
- (f) In order to accomplish this level of investments, significant policy, regulatory, financial and institutional barriers remain to be adequately addressed in all member States;
- (g) In the high commodity price environment, many energy investments appeared to be attractive including alternative energy sources;
- (h) At the same time, high prices caused important shifts in consumer behaviour such as sharp reductions in petrol consumption in the transport sector;
- (i) While energy prices are expected to rise in the medium term, crucial questions remain unresolved about the investment cycle and consumer behaviour under lower energy prices in the short term;
- (j) Continued large energy supply and infrastructure investments will be needed just to maintain current levels of hydrocarbon production and to avoid supply shortages when the global economy begins to recover;
- (k) The danger is that under-investment in key energy producing countries could reduce availabilities leading to strong renewed price pressures
- (l) There is a significant energy industry concern that the financial crisis will have a detrimental effect on the volume and timing of energy supply and infrastructure investments particularly on postponing planned projects by two years or more;
- (m) As NOCs in some countries come to dominate both reserves and production and production shifts to emerging markets, IOCs and governments will have to adapt to the new energy environment;
- (n) Clearly new forms of cooperation are needed between Governments in importing and exporting countries to facilitate partnerships between IOCs and NOCs to enhance the future security of energy supplies;
- (o) New forms of industrial and intergovernmental cooperation are also needed because project finance is structured in an increasingly complex environment with new players, active government and industry partners along the value chain;
- (p) One compelling form of industrial cooperation between IOCs and NOCs was the joint-venture announced by energy efficiency companies between major European natural gas companies from energy importing and energy exporting countries;
- (q) Governments in energy importing countries and exporting countries alike can make an important contribution in supporting international cooperation to increase energy efficiency in energy exporting countries;

(r) Significant progress had been achieved on the study on Sustainable energy policies to mitigate energy security risks, warranting the active involvement of Committee participants in the implementation of the study.

13. Based on the discussions, the Committee:

(a) Requested that international organizations dealing with energy security be invited to organize a joint working session on international cooperation for mitigating energy security risks during the Committee's eighteenth session in 2009 and asked the secretariat to prepare a note for that session;

(b) Requested that government departments, energy industries, financial institutions and international organizations appoint experts to participate in the Delphi Study on the assessment of perceptions of energy security risks;

(c) Requested that government departments, energy industries, financial institutions and international organizations appoint experts to participate in the analysis of how sustainable energy policies can enhance energy security and asked the secretariat to prepare a note thereon;

(d) Asked the secretariat to conclude an agreement with the World Energy Council to generate indicators of energy vulnerability for UNECE member States by the WEC for presentation each year at the Committee's annual energy security dialogue and to prepare a note on the use of the indicators;

(e) Asked interested Governments, energy industries, financial institutions and international organizations to participate in the Study on Gas saving to reduce natural gas demand and enhance energy security and the project on increasing energy efficiency for secure energy supplies.

V. COOPERATION AND COORDINATION WITH OTHER INTERGOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATIONS (Agenda item 4)

Documentation: ECE/ENERGY/2008/4

14. The Committee was briefed on the activities of common interest on cooperation with other intergovernmental and non-governmental organizations, industry associations and the business community.

VI. REVIEW OF ACTIVITIES OF THE SUBSIDIARY BODIES OF THE COMMITTEE (Agenda item 5)

Documentation: ECE/ENERGY/2007/3, ECE/ENERGY/2008/1, ECE/ENERGY/2008/3, ECE/ENERGY/2008/4, ECE/ENERGY/2008/5, ECE/ENERGY/WP3/2008/2, ECE/ENERGY/WP4/2008/4, ECE/ENERGY/GE.3/2008.2, ECE/ENERGY/GE.4/2008/2, ECE/ENERGY/GE.5/2007/5 and ECE/ENERGY/GE.5/2008/2

15. The Committee received a succinct briefing on the activities and future programme of work of each of its subsidiary bodies:

A. Steering Committee of the Energy Efficiency 21 Project (Agenda item 5(b))

16. The Committee:

(a) Welcomed the progress achieved in the implementation of the Energy Efficiency 21 project (EE21) and its sub-projects;

(b) Endorsed the decisions of the nineteenth session of the Energy Efficiency 21 Steering Committee, in particular the attribution of an executive decision-making role to the Ad Hoc Group of Experts on Energy Efficiency Investments for Climate Change Mitigation;

(c) Welcomed the results of the competitive bid-tendering process on the selection of the three major contractors for the project on financing energy efficiency investments for climate change mitigation, namely Investment Fund Designer, Regional Analysis of Policy Reforms and Website, and Internet Communications;

(d) Noted with appreciation the results of the first year of operations of the sub-project on Financing energy efficiency investments for climate change mitigation and, in particular, the results of the assessment missions to the participating countries;

(e) Welcomed the results and recommendations of the Conference on International Cooperation on Energy Efficiency: Working Together for a Low Carbon Economy, organized jointly with the Energy Charter secretariat and the International Energy Agency (IEA);

(f) Took note of the results and progress in the operation of the European Clean Energy Fund in relation to the Energy Efficiency 21 Project;

(g) Welcomed the decision of the Steering Committee to implement the three projects supported by the Russian Federation (Increasing energy efficiency for secure energy supplies; Development of the renewable energy sector in the Russian Federation and Commonwealth of Independent States; and Global Energy Efficiency 21) as subregional projects of EE21;

(h) Expressed appreciation to the National Participating Institutions and National Coordinators for their support in the implementation of project activities, in particular for the organization of the assessment missions to the participating countries;

(i) Noted with gratitude the financial support of the United Nations Foundation and United Nations Fund for International Partnerships; French Ministry of Foreign and European Affairs and French Global Environment Facility; United Nations Environment Programme and Global Environment Facility; and the European Business Congress e.V;

(j) Endorsed the request by the Ad Hoc Group of Experts for the renewal of its mandate for a further two years.

B. Working Party on Gas, Ad Hoc Group of Experts on the Supply and Use of Gas, and the Gas Centre (Agenda item 5(c))

17. The Committee:

(a) Agreed to include in the programme of work of the Working Party on Gas the studies on Underground gas storage in Europe and Central Asia and on the Current state and prospects of liquefied natural gas in the ECE region;

(b) Requested the Working Party on Gas to continue its work on increasing energy efficiency for secure energy supplies;

(c) Expressed gratitude to the Government of Spain and the Spanish Company Enargas for leading the work on liquefied natural gas (LNG) study;

(d) Expressed gratitude to GdF-Suez, the Government of Hungary, ROMGAZ and the Dutch Company Gas-Terra for leading the work on the underground gas storage (UGS) study in 2008

(e) Noted with appreciation the high level of international cooperation on natural gas issues undertaken within the framework of ECE through the Working Party on Gas, the Ad Hoc Group of Experts on the Supply and Use of Gas, and the Gas Centre;

(f) Noted with appreciation the launching of a new Study on Gas saving to reduce natural gas demand and enhance energy security, and invited the secretariat to report on the progress achieved in the implementation of this project at the next session of the Committee;

(g) Encouraged the Working Party on Gas to further develop, in cooperation with the UNECE Inland Transport Committee, the Blue Corridor project – an intersectoral activity, aimed at establishing transport corridors in Europe for heavy-duty vehicles using natural gas as fuel, instead of diesel;

(h) Encouraged further cooperation in the ECE region on the issues of energy savings and energy security;

(i) Endorsed the request by the Ad Hoc Group of Experts for the renewal of its mandate for one year.

(j) Requested the Working Party on Gas to investigate the strengthening of the activities of the Ad Hoc Group of Experts on Supply and Use of Gas or the transfer of its work to the Working Party on Gas as of 2009.

C. Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology (Agenda item 5(d))

18. The Committee:

(a) Expressed appreciation to the Bureau and the members of the Ad Hoc Group of Experts for their continuing efforts to further develop a harmonized terminology for fossil energy and mineral reserves/resources (United Nations Framework Classification for Fossil Energy and Mineral Resources - UNFC);

(b) Noted that progress had continued to be made in relation to ECOSOC Resolution 2004/233, which encourages Member States of the United Nations, the United Nations regional commissions and international organizations to consider taking appropriate measures for ensuring worldwide application of the UNFC;

(c) Expressed appreciation for the Report of the Task Force on Mapping of the UNFC, which served to usefully reduce a number of the gaps existing between the key petroleum and minerals classifications, the classifications of the Russian Federation and the UNFC;

(d) Welcomed the ongoing cooperation and collaboration of UNECE and non-UNECE member countries, other United Nations agencies and international organizations, intergovernmental bodies, and professional associations including IAEA, IEA, International Energy Forum Secretariat, Organisation for Economic Co-operation and Development Nuclear Energy Agency, Organization of the Petroleum Exporting Countries, American Association of Petroleum Geologists; European Federation of Geologists; Committee for Mineral Reserves International Reporting Standards, International Accounting Standards Board, International Valuation Standards Committee, Society of Petroleum Engineers, Society of Petroleum Evaluation Engineers, WEC, World Petroleum Council and the private sector;

(e) Endorsed the programme of work of the Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology for 2008/2009;

(f) Requested the Ad Hoc Group of Experts to consider options for the future governance of the UNFC following expiry of the Ad Hoc Group of Experts' current mandate in 2009;

(g) Requested the Ad Hoc Group of Experts to continue its efforts to develop a revised and simplified UNFC;

(h) Requested the Ad Hoc Group of Experts to submit any revised UNFC for consideration by the extended Bureau of the Committee on Sustainable Energy and to use its best efforts to submit this as soon as possible in 2009;

(i) Requested that appropriate documentation be prepared to support the programme of work for 2009 that could include: (i) a revised and simplified UNFC; (ii) a report or discussion paper on options and requirements for Specifications and Guidelines to the UNFC; (iii) Specifications and Guidelines for the UNFC following the decision of the Ad Hoc Group of

Experts on appropriate options; and (iv) case studies analysing the application of the revised UNFC.

**D. Ad Hoc Group of Experts on Coal Mine Methane
(Agenda item 5(e))**

19. The Committee:

(a) Expressed appreciation to the Bureau and the members of the Ad Hoc Group of Experts on Coal Mine Methane for their work to promote the recovery and use of methane gas from coal mines in line with the sustainable development pillars;

(b) Welcomed the activities undertaken by the Ad Hoc Group of Experts concerning the Mine Degasification Best Practices Guidance with the goal of developing a focused strategy for promoting the economic benefits of mine safety improvements and preparing a specific paper;

(c) Reiterated the decision of the Ad Hoc Group of Experts to further investigate the technical options for using low-quality coal mine methane because of its health and safety hazards, and also because of its energy resource potential in many ECE countries;

(d) Reiterated the decision of the third session of the Ad Hoc Group of Experts to assess whether regulatory requirements are inhibiting innovation in methane capture and utilization with the goal of preparing a briefing paper on possible problems with the existing regulatory requirements;

(e) Expressed appreciation to the United States Environmental Protection Agency for the multi-year grant to the UNECE to facilitate development of the project for the development of coal mine methane projects in Central Europe and the Commonwealth of Independent States, completed in 2008;

(f) Endorsed the request by the Ad Hoc Group of Experts for the renewal of its mandate for a further two years.

**E. Ad Hoc Group of Experts on Cleaner Electricity Production
from Coal and Other Fossil Fuels (Agenda item 5(f))**

20. The Committee:

(a) Took note of the decision of the Ad Hoc Group of Experts to establish a United Nations Trust Fund on fostering investments in cleaner electricity production from coal and other fossil fuels;

(b) Approved the programme of work of the Ad Hoc Group of Experts for 2009-2010 with a focus on fostering investments in cleaner electricity production from coal and other fossil fuels;

(c) Noted the conclusions and recommendations of the Forum on Carbon Capture and Storage as contained in the report of the second session of the Ad Hoc Group of Experts;

(d) Endorsed the request by the Ad Hoc Group of Experts for the renewal of its mandate for a further two years.

VII. ECE REGIONAL ADVISORY SERVICES PROGRAMME IN THE FIELD OF ENERGY (Agenda item 6)

Documentation: ECE/ENERGY/2008/3

21. The Director of the Division and the secretariat provided an update on the Regional Advisory Services, including subregional activities, in the field of energy.

22. The Committee:

(a) Thanked the Regional Advisor for the report provided on the UNECE Regional Advisory Services Programme in the field of energy during 2008;

(b) Took note with appreciation of the Regional Advisory services provided to Energy Efficiency 21 under the project Financing energy efficiency investments for climate change mitigation (assessment missions to Bosnia and Herzegovina, Kazakhstan and Russian Federation);

(c) Welcomed the contribution of the Regional Advisor to the preparation of the ECE/ Energy Charter Secretariat (ECS)/ International Energy Agency (IEA) joint conference on energy efficiency, May 2008 in Geneva;

(d) Welcomed the provision of Regional Advisory services to national project coordinators, local authorities and central government ministries in support of energy efficiency related programmes in Bosnia and Herzegovina, Kazakhstan and Ukraine;

(e) Welcomed the support provided in launching the National Energy Conservation and Energy Efficiency Centre in June 2008 in Almaty;

(f) Welcomed the contribution of Regional Advisory services to the programme of ECE participation at the United Nations Climate Change Conference in Poznań;

(g) Expressed appreciation for the work on the joint ECE/ Regional Cooperation Council (RCC) Network of Associations of Local Authorities of South-East Europe (NALAS), and for the Regional Network for the Efficient Use of Energy and Water Resources (RENEUER) project proposal on energy efficiency market formation in South-East Europe.

VIII. COOPERATION AND COORDINATION WITH OTHER SECTORAL COMMITTEES OF THE COMMISSION (Agenda item 7)

23. The Committee was briefed on the activities of common interest of other Sectoral Committees and on cooperation with other intergovernmental and non-governmental organizations, industry associations and the business community.

24. The Committee welcomed its cooperation with the:

(a) Timber Committee

(i) on the use of wood as a source of renewable energy with particular reference to the cooperation between the Timber Committee/ Food and Agriculture Organization of the United Nations and the Committee on Sustainable Energy on the European Forest Week (20-24 October 2008), in particular on the policy dialogue on “Forests, energy and climate change”.

(ii) within the framework of the Energy Efficiency 21 Programme and the Financing energy efficiency investments for climate change mitigation project.

(b) Committee on Housing and Land Management

(i) in the preparation of the concept note by the Committee on Housing and Land Management on energy efficiency in housing;

(ii) in contributing to specific workshops in particular on energy efficiency in buildings, also within the framework of the Financing energy efficiency investments for climate change mitigation project.

(c) Inland Transport Committee

(i) in developing a possible strategy for the transport sector to mitigate climate change;

(ii) in support of the challenge for the automotive industry to mitigate climate change which could result, for the transport sector, in a considerable decoupling from fossil fuels, a switch from fossil fuel to electricity and an increased demand of electricity.

(d) Committee on Economic Cooperation and Integration

(i) in promoting capacity building for successful public-private partnerships (PPP) through cooperation in the implementation of the Financing energy efficiency investments for climate change mitigation project;

(ii) in developing PPP training for best results, also within the framework of the programme on PPPs of the Committee on Economic Cooperation and Integration.

25. With regard to cooperation with international governmental and non-governmental organizations, the representative of IEA provided an overview of the World Energy Outlook 2008. The Director for Energy Efficiency and Investment of the Energy Charter Secretariat presented its work and the results of the cooperation with the UNECE, in particular referring to the joint Conference on International Cooperation on Energy Efficiency: working together for a low-carbon economy held in Geneva in May 2008. The OSCE Special Adviser made a presentation on Strengthening the international energy security dialogue in Europe. The representatives of RCC, CEI and WEC outlined the activities of their organizations in relation to the work of the Committee. IAEA emphasized the cooperation on key sustainable energy issues.

**IX. PROGRAMME OF WORK IN THE FIELD OF ENERGY
FOR 2009-2010 (Agenda item 8)**

Documentation: ECE/ENERGY/2008/4 and ECE/ENERGY/2008/5

26. The Committee reviewed and adopted its programme of work for 2009-2010.

27. Within the context of the preparation of the United Nations programme budget cycle, the programme narrative 2010-2011 and assessment of the programme performance of the sustainable energy subprogramme were also considered;

28. A questionnaire for the Programme Performance Assessment 2008-2009 was distributed during the session. The questionnaire will be also posted on the ECE website during 2009.

29. The Committee approved the provisional calendar of meetings for 2009.

X. OTHER BUSINESS (Agenda item 9)

30. No issues were tabled for discussion under this item.

**XI. ADOPTION OF THE REPORT OF THE MEETING
(Agenda item 10)**

31. The Committee agreed that the report be drafted in consultation with members of the Bureau, approved by the Bureau and then circulated to countries.

ANNEX I

OVERVIEW AND PROGRAMME ACTIVITIES

Related programme elements and implementing bodies

(C: Committee on Sustainable Energy; **WP.G**: Working Party on Gas; **EE21**: Steering Committee of the Energy Efficiency 21 Project; **G.C**: Gas Centre; **GE.CE**: Ad Hoc Group of Experts on Cleaner Electricity Production from Coal and Other Fossil Fuels; **GE.CMM**: Ad Hoc Group of Experts on Coal Mine Methane; **GE.EE**: Ad Hoc Group of Experts on Energy Efficiency Investments for Climate Change Mitigation; **GE.FE**: Ad Hoc Group of Experts on the Harmonization of Fossil Energy and Mineral Resources Terminology; **GE.G**: Ad Hoc Group of Experts on the Supply and Use of Gas)

1. NORMATIVE ACTIVITIES IN THE ENERGY FIELD INCLUDING LABELLING AND CLASSIFICATION SYSTEMS AND RELATED LEGAL AND POLICY FRAMEWORK

Work to be undertaken: To develop and implement norms and standards and to harmonize legislation, regulations and policies in the field of energy in order to promote sustainable energy development, such as:

- (a) follow-up on the implementation of the United Nations Framework Classification for Fossil Energy and Mineral Resources (UNFC), as per ECOSOC Resolution 2004/233 which invites the Member States of the United Nations, international organizations and regional commissions to consider taking appropriate measures for ensuring worldwide application of the UNFC, and the development of Guidelines, Specifications and Case Studies for its implementation (C, GE.FE);
- (b) ongoing harmonization of terminologies and classification systems for the evaluation and assessment of reserves/resources of energy commodities – petroleum, natural gas, solid fuels and uranium (C, GE.FE);
- (c) development of standards for carbon emissions trading (C, EE21, GE.CMM);
- (d) development of UNECE guidelines for measuring capacity adequacy in electricity generation and transmission, as well as on enhancing transparency of cross border transmission, in the UNECE region (GE.CE);
- (e) harmonization/convergence of norms, practices and policies (C, WP.G, EE21, GE.CMM, GE.FE, GE.G,);
- (f) assisting member States to develop norms and standards to integrate new electricity production technologies (e.g. carbon capture and storage (CSS) into regulatory structures, including environmental regulations (GE.CE);
- (g) assessing the relationship between electricity industry regulation and the choice of fuel mix with special focus on cleaner electricity production methods (GE.CE); and

(h) provision of technical assistance to countries with economies in transition in the energy regulatory and policy fields (C, EE21).

Work methods: To be carried out at annual sessions of the Committee and through Ad Hoc Groups of Experts, Task Forces, conferences, seminars, workshops, special studies and through the Regional Advisory Services.

2. OPENING AND LIBERALIZATION OF ENERGY MARKETS; SERVICE TARIFF SYSTEMS AND SECURITY OF SUPPLY

Work to be undertaken: To assess the major developments and trends in the ongoing restructuring and liberalization of energy markets, inherent challenges and opportunities associated with the opening up of energy markets, and to address issues related to the implementation of the regulatory, trading and technical aspects of market liberalization, such as:

(a) assessment, monitoring and exchange of experiences regarding the implementation of the European Union (EU) Gas Directives in EU Member States and, in particular, their extension to other UNECE member countries (G.C, WP.G);

(b) dialogue with the private sector on the implementation of market liberalization principles and practices (C, G.C, WP.G);

(c) assessment of overall energy security risks and potential policy responses (C);

(d) assessment of the security of natural gas supplies (G.C, WP.G);

(e) institutional capacity development and training for the benefit of countries with economies in transition regarding industry restructuring, privatization, price and tariff systems (C, G.C);

(f) exchange of views as well as policy-related studies on implications of market liberalization for government objectives, such as energy security and protection of the environment (C); and

(g) technical advisory missions relating to regulatory matters, industry restructuring and market liberalization (C, G.C, WP.G).

Work methods: Exchange of information and experiences among member countries at annual sessions of the Committee and its subsidiary bodies, and through Task Forces, seminars, workshops, technical missions and Regional Advisory Services, including preparation of analyses.

3. SUSTAINABLE ENERGY STRATEGIES FOR THE TWENTY-FIRST CENTURY

Work to be undertaken: To promote the development and implementation of strategies and policies to facilitate the transition to a more sustainable and secure energy future and to contribute a regional perspective to global events at which issues related to energy sustainability and security are addressed, such as:

- (a) regional input to the work and activities of the Commission on Sustainable Development (C);
- (b) promotion and facilitation of implementation of the UNECE Guidelines on Reforming Energy Pricing and Subsidies to policymakers in countries with economies in transition, including through collaborative activities with other United Nations agencies and relevant international organizations (C);
- (c) dialogue with the private sector and non-governmental organizations to facilitate the transition to a sustainable energy future within the UNECE region (C);
- (d) dissemination of information and provision of technical assistance to countries with economies in transition on sustainable energy issues (C);
- (e) undertaking a broadly shared intergovernmental expert dialogue on energy security specifically in the area of energy infrastructure investment and financing. In the future this dialogue to be extended to cover any/all of the following areas: (i) data and information sharing and increased transparency; (ii) legal, regulatory and policy framework; (iii) harmonization of standards; (iv) research, development and deployment of new technologies; and (v) investment/transit safeguards and burden sharing in situations of crisis (C);
- (f) implementing the energy security dialogue within its programme of work through the following activities: (i). organizing a joint working session on international cooperation for mitigating energy security risks during the Committee's eighteenth session; (ii) preparing Delphi Study on the assessment of perceptions of energy security risks with participation of experts appointed by Committee on Sustainable Energy government delegations, energy industry, financial sector and international organisation participants; (iii) analyzing how sustainable energy policies can enhance energy security with contributions from Committee on Sustainable Energy government delegations, energy industry, financial sector and international organisation participants; (iv) developing indicators of energy vulnerability for UNECE member States in cooperation with the World Energy Council for presentation each year at the Committee's annual energy security dialogue; and (v) studying on Gas Saving to Reduce Natural Gas Demand and Enhance Energy Security and implementing a project on Increasing Energy Efficiency for Secure Energy Supplies, with assistance for implementing these projects. (C, EE21, GE.CE, GE.EE);
- (g) periodic exchange of views on energy security risks and their interactions with the global financial community, including internet-based information exchanges on the subject and a continued assessment of energy security, corporate governance and energy efficiency undertaken in cooperation with other relevant international organizations (C, EE21); and
- (h) assessment of how UNECE can contribute to enhancing the stability of the global energy market and energy security risk mitigation (C).

Work methods: Exchange of experiences at the annual session of the Committee, through Ad Hoc Groups of Experts, Task Forces, conferences, seminars, workshops, special studies and through the Regional Advisory Services.

4. RATIONAL USE OF ENERGY, ENERGY EFFICIENCY AND CONSERVATION

Work to be undertaken: To harmonize and develop guidelines and strategies to enhance energy efficiency and energy conservation, as well as to enhance regional cooperation on energy efficiency market formation and investment project development to reduce greenhouse gas (GHG) emissions in countries with economies in transition, such as:

- (a) development of guidelines for improving energy conservation and efficiency, in particular in Central and Eastern Europe, the Caucasus and Central Asia (C, EE21);
- (b) regional networking between national participating institutions and international partners through enhanced internet communications for value added information transfers on financing energy efficiency projects and training (EE21, GE.EE);
- (c) development and harmonization of regional policies and standards to both introduce economic, institutional and regulatory reforms and remove the barriers needed to support energy efficiency investments to reduce GHG emissions (C, EE21, GE.EE, GE.CE);
- (d) promotion of municipal level projects to enable local and concrete energy efficiency development, as well as strengthening the reforms, skills and capacities needed for investment projects that meet international environmental treaty obligations under the United Nations Framework Convention on Climate Change and UNECE (EE21, GE.EE);
- (e) assistance in securing financing for energy efficiency projects, including through the provision of support for the creation of a dedicated investment fund for selected East European, Central Asian and South-East European countries, as well as providing support for cooperation with existing financial mechanisms operating in countries participating in the EE21 Project (EE21, GE.EE);
- (f) assistance with the preparation of investment project proposals for submission to the SwissRe/Conning and Company European Clean Energy Investment Fund (EE21, GE.EE);
- (g) promotion of sustainable development of municipalities and regions through rational use of energy and water resources in cooperation with the Regional Network for Efficient Use of Energy and Water Resources for Southeastern Europe (RENEUER) (EE21);
- (h) support for biomass energy projects and the capacity of customers to finance and implement them, thereby addressing reduction of GHG emissions and diversification of energy sources (EE21, GE.EE);
- (i) increase the use of energy labels in the procurement process in public authorities (EE21);
- (j) ensure the continued development of trade and international cooperation in the promotion of energy efficiency, including in sustainable energy technologies and renewable energy, in other regional commissions and within the UN-Energy context (C, EE21, GE.EE);

(k) implement the three projects supported by the Russian Federation as sub-regional projects of EE21, namely: (i) Increasing Energy Efficiency for Secure Energy Supplies; (ii) Development of Renewable Energy Sector in the Russian Federation and CIS: Prospects for Interregional Cooperation, and (iii) Global Energy Efficiency 21: Cooperation between United Nations regional commissions on Energy Efficiency for Climate Change Mitigation (C, EE21, GE.EE);

(l) development and study of coal mine methane (CMM) and coal bed methane (CBM) projects and raising the awareness of the benefits that CMM and CBM have in economic, social and environmental terms, including investigation on technical options for using of low-quality coal mine methane (GE.CMM, EE21, GE.G);

(m) assessment of trends and development of market for vehicles using alternative (gaseous) fuels (WP.G); and

(n) study of new and emerging methods for detection of gas leakages during gas industry operations (GE.G).

Work methods: Implemented through national participating institutions, private sector companies, international financial institutions, commercial banks, international organizations, other multi- and bilateral technical assistance programmes, Ad Hoc Groups of Experts and Regional Advisory Services, as well as through meetings, training sessions, workshops, seminars and special studies.

5. ENERGY INFRASTRUCTURE, INCLUDING ELECTRIC POWER AND GAS NETWORKS

Work to be undertaken: To encourage the modernization, extension and transboundary interconnection of the energy infrastructure of member countries in order to promote energy trade, economic efficiency, security of supply of electricity and the fuller integration of energy systems in the UNECE region, through activities such as:

(a) reviews of the situation and prospects for European interconnections in the field of natural gas (C, WP.G);

(b) evaluation and dissemination of information to promote and facilitate the security of supply of electricity, particularly in countries with economies in transition, in order to achieve reliable generation, transmission, distribution and delivery of electricity to the end-consumer, and all at economic levels over a continuous period (C);

(c) facilitating an intergovernmental dialogue on investment and regulation for the promotion of cleaner electricity production in the region (GE.CE);

(d) updates of studies on Underground Gas Storage and Gas Grids for both natural gas and liquefied petroleum gas (WP.G); and

(e) ongoing development of an international programme, known as the Blue Corridor Project, to establish a transboundary corridor in the UNECE region for freight and public transportation by natural gas vehicles (WP.G).

Work methods: Exchange of information and views during annual sessions of the Committee, coordination of activities and joint meetings with subregional organizations, and through Ad Hoc Groups of Experts composed of representatives of interested governments, companies, other regional commissions and international organizations as well as through seminars and workshops, including special studies.

6. CLEANER ELECTRICITY PRODUCTION AND SUSTAINABLE ENERGY DEVELOPMENT

Work to be undertaken: To provide an overview of the policies and programmes carried out in member States related to the promotion of cleaner electricity production from coal and other fossil fuels in the context of sustainable energy development. Particular emphasis is placed on promoting the environmental sustainability of the “coal – and other fossil fuels – to electricity production chain”, and also promotion of technical cooperation among member States in applying cleaner electricity production technologies and practices, including CSS and other technical innovations to reduce emissions arising from the use of coal and other fossil fuels, such as:

(a) dissemination of information on technological innovations that will result in a reduced environmental impact from coal use, including in the area of (i) CCS through an assessment of the current status of research, development and deployment, promising technologies and key barriers to implementation, and (ii) other technological and operational developments including coal gasification and liquefaction and zero emissions technologies (C, GE.CE, GE.G);

(b) appraising the development of a regulatory framework conducive to promoting investment in cleaner electricity production, including continuing support for the CCS Regulators' Network in cooperation with the International Energy Agency and the Carbon Sequestration Leadership Forum (GE.CE);

(c) assessing the relationship between electricity industry regulation and the choice of fuel mix with a special emphasis on cleaner electricity production methods (GE.CE);

(d) evaluating policies and measures to reduce the electricity efficiency gap between developed market and emerging market economies in the UNECE region (C, GE.CE);

(e) fostering the creation of a UNECE-wide consensus on enhancing investments in thermal generation and transmission, in particular in relation to cross border transfer capacities and procedures (GE.CE);

(f) dissemination of information on improving the thermal efficiency of large coal-fired power plants and the reduction of environmentally harmful emissions, particularly for the benefit of member countries with economies in transition (GE.CE); and

(g) facilitating capacity building for air quality management and the application of clean coal combustion technologies in Central Asia (C, GE.CE).

Work methods: Exchange of information and views at the annual session of the Committee and through Ad Hoc Group of Experts, dedicated Task Forces, seminars, workshops and study tours; and preparation of studies, as well as presentation of case studies on successful projects.

7. COAL MINE METHANE AND SUSTAINABLE ENERGY DEVELOPMENT

Work to be undertaken: To encourage the development and profitable recovery and use of CMM and abandoned mine methane (AMM) in the UNECE region. The use of CMM mitigates climate change, improves mine safety and productivity, and generates revenues and cost savings. Particular emphasis is placed on promoting the environmental sustainability of the CMM industry, as well as technical cooperation among member States through activities such as:

(a) working closely with member States and the mining industry to establish a clear link between the economic benefits gained through the safe drainage and use of CMM and to encourage implementation of best practices through dialogue with the relevant technical, business and regulatory communities (C, GE.CMM, GE.G);

(b) facilitating financing of CMM projects in Central and Eastern Europe, the Caucasus and Central Asia, including through active engagement with the international finance community (GE.CMM);

(c) reviewing current legal and regulatory frameworks to assess whether existing requirements are inhibiting investment and innovation in more effective CMM degasification programmes (GE.CMM); and

(d) identifying opportunities for the CMM sector, in particular in UNECE member States with economies in transition, to participate in and benefit from the various public and private GHG emissions markets in operation (GE.CMM).

Work methods: Exchange of information and views at the annual session of the Committee and through Ad Hoc Group of Experts, dedicated Task Forces, seminars, workshops and study tours; and through the preparation of studies, as well as presentation of case studies on successful projects.

ANNEX II

CALENDAR OF MEETINGS OF THE COMMITTEE ON SUSTAINABLE ENERGY AND ITS IMPLEMENTING BODIES IN 2009

The Committee on Sustainable Energy requests that it be provided at each session with a provisional calendar of meetings for the ensuing calendar year.

COMMITTEE ON SUSTAINABLE ENERGY

- Committee on Sustainable Energy, eighteenth session, 18-20 November, Geneva (including meetings related to Energy Security)
- Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology, sixth session, 25-27 March, Geneva
- Ad Hoc Group of Experts on Cleaner Electricity Production from Coal and Other Fossil Fuels, third session, 14-15 May, Geneva
- Ad Hoc Group of Experts on Coal Mine Methane, fifth session, 12-13 October, Geneva
- Ad Hoc Group of Experts on Cleaner Electricity Production from Coal and other Fossil Fuels, fourth session, 16-17 November, Geneva

STEERING COMMITTEE OF THE ENERGY EFFICIENCY 21 PROJECT

- Ad Hoc Group of Experts on Energy Efficiency Investments for Climate Change Mitigation, thirteenth session, 2-3 March, Geneva
- Steering Committee of the Energy Efficiency 21 Project (EE21), twentieth session, 3-5 June, Geneva
- Ad Hoc Group of Experts on Energy Efficiency Investments for Climate Change Mitigation, fourteenth session, 7-9 October, Geneva

WORKING PARTY ON GAS

- Working Party on Gas, nineteenth session, 20-21 January, Geneva
- Ad Hoc Group of Experts on Supply and Use of Gas, tenth session, 22 January, Geneva

GAS CENTRE

- Executive Board of the Gas Centre, fourteenth session, 19 January, Geneva
- Task Force on Implementation of EU Gas Directives, eighteenth session, 24-25 March, Zagreb
- Task Force on Supply, Infrastructure and Markets, first session, 11-15 May, Amsterdam
- Gas Centre High Level Conference on “LNG Supply and New Projects”, fourteenth session, 3-5 June, Fos-sur-Mer (France)
- Gas Centre Database Technical Committee, twentieth session, 18-19 June, Geneva
- Gas Centre Bureau Meeting, September/ October, Geneva
- Gas Centre Database Technical Committee, twentieth-one session, November, Geneva
- Task Force on the Implementation of the EU Gas Directives, nineteenth session, 11-12 November, Vienna
- Task Force on Supply, Infrastructure and Markets, second session, 2-3 December, Romgaz (Romania)
