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**ECONOMIC COMMISSION FOR EUROPE**

COMMITTEE ON SUSTAINABLE ENERGY  
Thirteenth session, 19-21 November 2003

**REPORT**

**I. ATTENDANCE**

1. The thirteenth session of the Committee on Sustainable Energy was held from 19 to 21 November 2003 with the participation of representatives from the following member States: Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Finland, France, Germany, Hungary, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Malta, Norway, Poland, Republic of Moldova, Romania, Russian Federation, Serbia and Montenegro, Slovakia, Slovenia, Spain, Switzerland, Tajikistan, The Former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America and Uzbekistan. Representatives of the European Community also participated.
2. The United Nations Conference on Trade and Development (UNCTAD), International Labour Organisation (ILO), International Atomic Energy Agency (IAEA), and were also represented.
3. The following intergovernmental and non-governmental organizations were in attendance: Council of Europe, Energy Charter, European Bank for Reconstruction and Development (EBRD), EURELECTRIC, Commonwealth of Independent States (CIS) Interstate Euro-Asia Coal and Metal Community, International Committee for Coal and Organic Petrology (ICCP), International Energy Agency (IEA/OECD), International Network for Sustainable Energy (INFORSE), International Sustainable Energy Organisation (ISEO), Organisation of Oil Exporting Countries (OPEC), Stability Pact, Vernadsky Ecological Foundation, and World Energy Council (WEC).

## **II. OPENING OF THE SESSION**

4. The Acting Deputy Executive Secretary of the Economic Commission for Europe opened the session by describing key economic issues facing UNECE member States in the sustainable energy field. He noted rising investment needs and pointed out emerging bottlenecks such as the investments required for the electric power sector in economies in transition. He explained the potential of renewable energy sources, observing that the Committee needed to consider carefully its potential role in this area. The Acting Deputy Executive Secretary described some of the resurgent energy security risks that had emerged during the last year. He noted that a distinguished group of panellists would review Energy Security Risks and Global Financial Markets seeking to address the persistent instability and vulnerability on energy markets. This dialogue would contribute to the work of the Committee on Sustainable Energy as the Energy Security Forum while providing input to the United Nations Global Compact. He invited the Committee to consider its programme of work and special activities in the field of sustainable energy during its session.

## **III. ADOPTION OF THE AGENDA** (Agenda item 1)

Documentation: ECE/ENERGY/52

5. The agenda was adopted.

## **IV. BUREAU OF THE MEETING** (Agenda item 2)

6. The elected officers were as follows: Chairman: Mr. Miles Greenbaum (United States of America); Mr. Michel Hors (France); Mr. Laszlo Molnar (Hungary); Mr. Sergei Mikhailov, represented by alternate Mr. Victor Shakhin (Russian Federation); Mr. Jean-Christophe Füeg (Switzerland) (not present during the session); Mr. Trajce Cerepnalkovski (The former Yugoslav Republic of Macedonia).

## **V. MATTERS ARISING FROM THE FIFTY-EIGHTH SESSION OF THE COMMISSION RELATED TO ENERGY ACTIVITIES** (Agenda item 3)

Documentation: E/2003/37; E/ECE/1406; ENERGY/2003/4

7. This agenda item was introduced by the secretariat with a summary of three issues recently considered by the Economic Commission for Europe: sustainable development in the UNECE region, strengthening the Organization – review of the intergovernmental structure, and technical cooperation.

## **VI. FACILITATING INVESTMENT IN THE ELECTRICITY SECTOR IN THE TRANSITION ECONOMIES (Agenda item 4)**

Documentation: ENERGY/GE.2/2003/3; ENERGY/GE.2/2003/4

8. With a number of UNECE economies in transition facing a range of specific investment problems, the lack of investment in the electricity generation sector is of particular concern to the Committee. It has been estimated that some US\$10 billion investment is needed by this sector by 2012, in particular for rehabilitation of existing power plants. In order to assess this issue, the Committee and the Ad Hoc Group of Experts on Electric Power jointly held a Roundtable on Facilitating Investment in the Electricity Sector in the Transition Economies. The Roundtable highlighted the challenges and barriers to investment in the electricity sector in the transition economies and provided for a debate on how to promote an appropriate investment climate. Further details on the roundtable are available on [www.unece.org/ie/](http://www.unece.org/ie/).

9. The Committee:

- (i) Took note, with appreciation, of the presentations and discussions on facilitating investment in the electricity sector of transition economies;
- (ii) Recognized that the electricity sector dominates the investments required by the energy sector and that financing such investments in the economies in transition is a significant and pressing challenge;
- (iii) Noted that financial risks are introduced during the transition to competitive markets and that investment risks are a significant barrier to inward investment in these economies. Economic and political instability, uncertain legal and regulatory regimes and exchange rate fluctuations also serve to impede the required investments;
- (iv) Further noted that the recent power failures in North America and parts of Europe have highlighted the importance of transmission and distribution reliability and hence the importance of not allowing obstacles, such as public opposition to expansions in transmission networks, to lag behind investments in generation capacity.

## **VII. RENEWABLE ENERGY SOURCES AND SUSTAINABLE ENERGY DEVELOPMENT IN THE UNECE REGION (Agenda item 5)**

Documentation: ENERGY/2003/1

10. In the UNECE region, renewable energy sources have considerable potential and could make an increasingly significant contribution to energy supply diversification, emission reductions, security of supplies and sustainability of the energy sector in the long run. While wind, small hydro, solar and biomass energies can be successfully deployed in specific areas, under favourable conditions, their widespread use will continue to be constrained by economic and, to some extent, environmental factors. Under present market conditions renewables are, on the whole, not competitive and their widespread use cannot be accelerated without the provision of direct or indirect subsidies. In order to examine these issues and to consider its possible role in this field, the Committee held a Roundtable on Promoting Renewable Energy to Support Sustainable Development in the UNECE Region. Further details are available from [www.unece.org/ie/](http://www.unece.org/ie/).

11. The Committee:
- (i) Expressed appreciation to the secretariat for the discussion paper and draft Terms of Reference on Renewable Energy Sources;
  - (ii) Decided that the initial step in this field should be to develop technical assistance activities for UNECE economies in transition;
  - (iii) Requested the Steering Committee of the Energy Efficiency 21 Project to consider, in relation to its forthcoming session in May 2004, a draft programme of work for technical assistance on renewable sources of energy to UNECE economies in transition, similar in nature to the activities on energy efficiency.

**VIII. ENERGY SECURITY FORUM: THE INTERACTION OF ENERGY SECURITY RISKS WITH GLOBAL FINANCIAL MARKETS AND INVESTMENTS IN THE ENERGY SECTOR** (Agenda item 6)

Documentation: ENERGY/2003/2 and ENERGY/2003/2/Add.1

12. Some of the most pressing political concerns debated at the Security Council have direct implications for the energy security and the economies of UNECE member States. These issues have been addressed by the Committee on Sustainable Energy through roundtable discussions held in 2001 and 2002. During its annual session in 2003, the Committee launched the Energy Security Forum, an activity in its programme of work to address the persistent world energy market instability and its interaction with global financial markets. Continuing tensions in the Middle East, sabotage and terrorist acts in major producing countries have contributed to a heightened sense of vulnerability for UNECE member States. These concerns have been aggravated by company and policy failures such as the Enron bankruptcy, the California energy crisis and the recent electric power blackouts in North America.

13. The greatest contribution of the United Nations to resolving these issues lies in a policy dialogue as envisaged in the Global Compact launched by the Secretary-General of the United Nations with private sector leaders. The Energy Security Forum is designed to bring together a unique gathering of energy companies, OPEC, key consuming countries, major non-OPEC members hydrocarbon exporters and leading financial institutions to determine how energy security risks are perceived by different Forum members and how such risks can be mitigated through dialogue.

14. The Committee:
- (i) Concluded that energy security was a key element of sustainable energy policy which deserved the attention the Energy Security Forum could devote to it within the framework of the United Nations system;
  - (ii) Expressed its appreciation to the participants in the initial session of the Energy Security Forum for the excellent presentations and debate on energy security risks and their interaction with global financial markets;
  - (iii) Took note with appreciation of the statement signed by all participants of the initial session of the Energy Security Forum (see Annex I);

- (iv) Requested the secretariat to convene the first meeting of the Executive Board of the Energy Security Forum based on the companies and institutions nominated by the Chairman of the initial session: Organization of Oil Exporting Countries (OPEC), Energy and Communications Solutions, Lukoil, Swiss Re, Shell International, American Petroleum Institute, Credit Suisse First Boston, Core Ratings, Fitch Ratings, ITERA Group, Aon Energy Group, Gazprom, Ruhrgas, United Energy System of Russia RAO UESR and Moscow International Petroleum Club;
- (v) Recommended that at its first session the Executive Board elect its officers, determine its terms of reference, work methods, outputs and extra budgetary resource requirements on the basis of the note prepared by the secretariat concerning the Energy Security Forum (ENERGY/2003/2 and ENERGY/2003/2/Add. 1).

## **IX. SPECIAL INITIATIVES AND CAPACITY BUILDING IN SUPPORT OF SUSTAINABLE ENERGY DEVELOPMENT** (Agenda item 7)

- (a) Guidelines on Reforming Energy Prices and Subsidies

Documentation: ECE/ENERGY/54

- 15. This agenda item was introduced by the secretariat. After discussion the Committee:
  - (i) Expressed its appreciation to the Task Force for successful development of the Guidelines;
  - (ii) Took note that the Guidelines had been endorsed by the Kiev Ministerial Conference on the Environment for Europe (Kiev, Ukraine, May 2003);
  - (iii) Recommended that Governments of UNECE transition economies implement the Guidelines in accordance with the Ministerial Declaration of the Environment for Europe Conference held in 2003 in Kiev (Ukraine);
  - (iv) Requested the Task Force to assess the implementation of the Guidelines (through meetings in 2005 and 2006) and report to the next Ministerial Conference of Environment for Europe to be held in Belgrade (Serbia and Montenegro) in 2007.

- (b) United Nations International Framework Classification for Energy Reserves/Resources

Documentation: ENERGY/GE.3/2003/3/Add.1

- 16. This agenda item was introduced by Mr. Sigurd Heiberg (Norway), Chairman of the Ad Hoc Group of Experts on the Harmonization of Energy Reserves Resources Terminology with a report on activities during 2002 and 2003. After discussion the Committee:
  - (i) Expressed appreciation for the substantive progress that had been achieved to extend the UNFC Classification to oil, natural gas and uranium commodities;
  - (ii) Noted the importance and benefits of harmonizing the existing differences in definitions and methodologies of assessing energy reserves/resources;
  - (iii) Took note of the substantive contribution of WPC/SPE/ AAPG; OPEC; IAEA; WEC and EFG to this achievement;

- (iv) Expressed appreciation to the Bureau of the Ad Hoc Group and respective sub-group coordinators for organising a number of telephone conferences in refining the UNFC; and the Russian Ministry of Natural Resources, OPEC secretariat and IAEA for holding seminars on UNFC application in 2003 (Moscow, April; and OPEC Headquarters, Vienna, May, IAEA, Vienna, June, OECD, Paris, October);
- (v) Recommended the promotion of UNFC application to countries endowed with energy reserves/resources worldwide, bearing in mind the fact that most of the energy deposits are located outside the UNECE region. For this purpose, the Committee invited the Commission to submit a proposal for an ECOSOC decision to be considered by the next ECOSOC annual session in 2004;
- (vi) Recommended that the UNECE and OPEC secretariats take the initial steps for UNFC implementation to hydrocarbon resources, and to this end to organise a regional seminar for OPEC Middle East member countries, in the first half of 2004. It was further recommended that the event be organised in cooperation with UNESCWA;
- (vii) Welcomed the decision of the Ad Hoc Group of Experts to further strengthen its support of the Committee by providing an improved basis for considering more efficient and benign extraction of energy resources from the earth. This includes support of the development of strategies for the exploitation of fossil fuels in line with the need for sustainable energy supplies;
- (viii) Requested that the Ad Hoc Group continue its work under the expanded mandate for a period of two years, and report achievements and plans yearly;
- (ix) Requested that the name of the Ad Hoc Group be changed to Ad Hoc Group Experts on the Supply of Fossil Fuels to better reflect the nature of its work;
- (x) Approved the Ad Hoc Group's approach to cooperate with the International Accounting Standard Board (IASB), SPE Oil & Gas Reserves Committee, World Petroleum Congresses (WPC) and American Association of Petroleum Geologists, to adapt the UN Framework Classification to the needs of international financial reporting standards, including the determination of suitable standard commercial conditions for determining reported reserves and standard measures of their value;
- (xi) Recommended close cooperation with the secretariats of IAEA, IEA, International Energy Forum (IEF), OPEC, World Energy Council and WPC, with a view to introducing the UNFC principles in surveys of fossil energy resources, and in considerations related to their supply;
- (xii) Recommended to develop, within the Ad Hoc Group programme, international expertise for providing assistance to countries and regions on resource assessment, valuation and classification;
- (xiii) Encouraged the creation of national teams for adapting national classifications to the UNFC.

(c) Blue Corridor: Use of Natural Gas as a Motor Fuel for International Trans-boundary Goods Traffic

Documentation: ENERGY/2003/8

17. After discussion the Committee:

- (i) Took note, with appreciation, of the intensive and efficient work carried out by the Inter-sector Task Force since the last session of the Committee;

- (ii) Expressed appreciation and thanks to the hosts of the three meetings held by the Task Force in Poland, Netherlands and Germany;
- (iii) Endorsed the main conclusions and recommendations contained in the Report of the Task Force;
- (iv) Encouraged the Task Force to develop, through the Working Party on Gas and the Inland Transport Committee, future steps for practical implementation of the pilot stage of the project;
- (v) Requested the secretariat to provide assistance in obtaining the participation of international financial institutions in the establishment of the International Consortium and the implementation of the pilot project;
- (vi) Requested the secretariat to report on progress in the implementation of the project at its next session.

## **X. REVIEW OF ACTIVITIES OF SUBSIDIARY BODIES (Agenda item 8)**

### **(a) Steering Committee of the Energy Efficiency 21 Project**

Documentation: ENERGY/WP.4/2003/8, ENERGY/WP.4/2003/9, ENERGY/WP.4/2003/10 and ENERGY/WP.4/2003/11

18. This agenda item was introduced by the secretariat. After discussion the Committee:
- (i) Noted with satisfaction that the Energy Efficiency 21 Project had been successfully implemented in accordance with the Project Plan 2000-2003;
  - (ii) Expressed appreciation to the National Coordinators from economies in transition and supporting institutions for their willingness to provide financing, co-financing or in kind contributions for the project and to the UNECE secretariat for project management and assistance to member States in the implementation of the project;
  - (iii) Welcomed in particular the support and participation of the United Nations Foundation, Government of France, Government of Norway, Government of Italy and European Commission SAVE Programme, United States Department of Energy and the USAID and Alliance to Save Energy MUNEE Project;
  - (iv) Welcomed the participation of the European Commission SAVE Programme and the Government of Italy in the development of the study 'Enhancing Government Regulatory Energy Measures Impact and Diffusion Speed Appraisal Method' E-GRIDS project and the support provided to the project team;
  - (v) Requested the Bureau and the secretariat to complete the development of a Project Plan for a second phase of the Energy Efficiency 21 Project 2003-2006 including a financing mechanism or investment fund in accordance with the report of the fourteenth session of the Steering Committee.
  - (vi) Requested the Bureau and the secretariat to explore extra-budgetary support with interested governments and supporting institutions and report to the Committee on progress made at its next session.

### **(b) Working Party on Gas, related Ad Hoc Group of Experts and Gas Centre**

Documentation: ENERGY/WP.3/2003/2 and ENERGY/WP.3/GE.5/2003/2

19. This agenda item was introduced by the secretariat. The Committee:

- (i) Took note with appreciation of the work undertaken by the Working Party on Gas, Ad Hoc Group of Experts on the Supply and Use of Gas and the Gas Centre;
- (ii) Expressed satisfaction with the results of the work carried out by the Blue Corridor Task Force;
- (iii) Encouraged the Working Party on Gas to continue holding Round Tables on topical issues of gas industry and gas markets developments;
- (iv) Approved the renewal of the mandate of the Ad Hoc Group of Experts for an additional two years;
- (v) Congratulated the Ad Hoc Group of Experts on the Supply and Use of Gas for successful completion of the two projects related to normative activities in the gas industry;
- (vi) Expressed satisfaction with the results of Gas Centre's operations.

(c) Ad Hoc Group of Experts on Coal in Sustainable Development  
Documentation: ENERGY/GE.1/2002/3 and ENERGY/GE.1/2003/2

20. The Committee

- (i) Took note with appreciation the information provided on the work being undertaken by the Ad Hoc Group of Experts on Coal in Sustainable Development;
- (ii) Expressed satisfaction with the new orientation and programme of work of the Ad Hoc Group established in 2002;
- (iii) Approved the renewal of the mandate of the Ad Hoc Group of Experts for an additional two years; and
- (iv) Encouraged the Ad Hoc Group to pursue activities in the area of coal mine methane in view of the economic, social and environmental benefits that would ensue.

(d) Ad Hoc Group of Experts on Electric Power  
Documentation: ENERGY/GE.2/2002/2 and ENERGY/GE.2/2003/1

21. The Committee:

- (i) Took note of the information provided and approved the continued functioning of the Ad Hoc Group of Experts on Electric Power for a period of two years following the successful one year trial period granted in 2002;
- (ii) Approved the Terms of Reference of the Ad Hoc Group as outlined; and
- (iii) Endorsed the programme of work of the Ad Hoc Group.

## **XI. REGIONAL ADVISORY SERVICES, INCLUDING SUB-REGIONAL ACTIVITIES, IN THE FIELD OF ENERGY (Agenda item 9)**

(a) Regional Advisory activities  
Documentation: ENERGY/2003/3)



22. The Committee took note of and welcomed with appreciation the Regional Advisory services provided to the SPECA project “The Efficient Use of Energy and Water Resources in Central Asia”.

(b) Project on rational and efficient use of energy and water resources under the auspices of the Special Programme for Economies of Central Asia (SPECA)

23. The Committee endorsed the Regional Strategy for the Efficient Use of Energy and Water Resources in Central Asia.

## **XII. ECE PROGRAMME OF WORK IN THE FIELD OF ENERGY**

(Agenda item 10)

(a) Programme of work including the work programme of subsidiary bodies

Documentation: ENERGY/2003/5

24. The Committee adopted its programme of work including that of its subsidiary bodies as reproduced in Annex II to this report.

(b) Calendar of meetings

Documentation: ENERGY/2003/6)

25. The Committee adopted its calendar of meetings including those of its subsidiary bodies as reproduced in Annex III to this report.

## **XIII. COOPERATION AND COORDINATION WITH OTHER BODIES**

(Agenda item 11)

(a) Principal Subsidiary Bodies of the Commission

26. The Committee welcomed cooperation with the:

- (i) Committee on Environmental Policy in the preparation of Guidelines for reforming energy prices and removing subsidies to promote sustainable energy development (also see agenda item 7(a) above);
- (ii) Inland Transport Committee on the Blue Corridor: Use of Natural Gas as a Motor Fuel for International Transboundary Goods Traffic (also see agenda item 7(c) above);
- (iii) Convention on Long-Range Transboundary Air Pollution with the development of a proposal submitted for funding to the UN General Assembly Development Account on Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia which was also discussed by the Ad Hoc Group of Experts on Coal and Thermal Power;
- (iv) Timber Committee on the use of wood as a source of renewable energy.

(b) Other intergovernmental and non-governmental organisations and the business community

Documentation: ENERGY/2003/7

27. The Committee welcomed its cooperation with other international and non-governmental organisations and encouraged development of further cooperation when appropriate.

**XIV. OTHER BUSINESS** (Agenda item 12)

**XV. ADOPTION OF THE REPORT** (Agenda item 13)

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

## ANNEX I

### ENERGY SECURITY FORUM

The undersigned Energy Security Forum participants met in the Palais des Nations, Geneva during the annual session of the Committee on Sustainable Energy on 20 November 2003 to open a dialogue between governments, the energy sector and the financial community on energy security risks and how these may effect investments and policy options.

We recognise the importance of energy security in view of the rising energy import dependence of the UNECE region, the increasing cost of developing incremental sources of energy supplies, the lengthening of supply routes that are distinctly vulnerable to terrorist attack, the unclear implications of market liberalisation for energy security, and the unresolved social and ethnic strife in a number of producing and transit countries.

We intend to continue our cooperation under the auspices of the United Nations Economic Commission for Europe and report to the Secretary General through the Global Compact as part of the Policy Dialogue the Secretary General has established.

We call upon the UNECE to provide the institutional basis for the Energy Security Forum to develop our cooperation to mitigate energy market instability and its negative impact on the world economy through dialogue and our considered views.

H.E. Mr. Alvaro Silva-Calderon, Secretary General, OPEC  
Mr. Robert McFarlane, Chief Executive Officer, Energy and Communication Solutions LLC  
Mr. Victor Kaluzhny, Deputy Foreign Minister, Special Envoy of H.E. Mr. Vladimir Putin,  
President of the Russian Federation  
Mr. Vagit Alekperov, President and CEO, Lukoil  
Mr. Bruno Porro, Chief Risk Officer, Member of the Board Swiss Re  
Mr. Albert Bressand, Executive Senior Vice President, Shell International  
Ms. Genevieve Murphy, American Petroleum Institute  
Mr. Matthew Harris, Managing Director, Co-Head Global Energy Group,  
Credit Suisse First Boston  
Mr. Trevor Pitman, Group Managing Director, Fitch Ratings  
Mr. Alan Banks, Chief Executive Officer, Core Ratings  
Mr. Igor Makarov, President, ITERA Group (Mr. Viacheslav Nazarov,  
Member of the Management Board)  
Mr. Magne Seljeftot, Chairman, Aon Energy Group  
Mr. Stanislav Tsygankov, Director of Department, Gazprom  
Mr. Wilfried Czernie, Senior General Manager, Ruhrgas  
Mr. Anatoly Zelinsky, Executive Board Member, Russian Joint Stock Company,  
United Energy System of Russia RAO UESR  
Mr. Alexander Karpushin, Head, European Office, Rosneft  
Mr. Togrul Bagirov, Executive Vice President, Moscow International Petroleum Club  
Mr. Nigel Alington, Executive Director, Aon Risk Consulting  
Mr. Leonid Bokhanovsky, Senior Vice President, StroyTransGas  
Mr. Igor Solyarsky, Vice President, Transneft  
Mr. Eike H. Müller-Elshner, Vice President, Wintershall

## ANNEX II

### PROGRAMME OF WORK 2004-2005

#### OVERVIEW & PROGRAMME ACTIVITIES

##### Related programme elements and implementing bodies

(C: Committee; WP.G: Working Party on Gas; EE 21: Steering Committee of the Energy Efficiency 21 Project; GE.C: Ad Hoc Group of Experts on Coal in Sustainable Development; GE.E: Ad Hoc Group of Experts on Electric Power; GE.H: Ad Hoc Group of Experts on the Harmonization of Energy Reserves/Resources Terminology; G.C: Gas Centre)

#### **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:

- Follow-up on the implementation of the United Nations International Framework Classification for Reserves/Resources: Solid Fuels and Mineral Commodities (C, GE.H);
- harmonization of terminologies and classification systems for the evaluation and assessment of reserves/resources of energy commodities - petroleum, natural gas, coal and uranium (C, GE.H);
- development of standards for carbon emissions trading (C, EE 21);
- harmonization/convergence of norms, practices and policies (C);
- provision of technical assistance to countries with economies in transition in the regulatory and policy fields (C).

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; PRICING POLICIES AND SUPPLY SECURITY**

Work to be undertaken: To assess the major developments and new trends in the 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:

- assessment, monitoring and exchange of experiences regarding the implementation of the EU Gas Directive in EU Member States and, in particular, its extension to other UNECE countries (G.C);

- dialogue with the private sector on the implementation of market liberalization principles and practices (C, G.C);
- assessment of the security of natural gas supplies (G.C, WPG);
- assessment of overall energy security risks and potential policy responses(C);
- institutional capacity development and training for the benefit of economies in transition regarding industry restructuring, privatisation, pricing and tariff setting (C, G.C, WPG);
- 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);
- assessment of prospects for coal and coal-based electricity in liberalized energy markets (C, GE.C);
- technical advisory missions relating to regulatory matters, industry restructuring and market liberalization (C, G.C).

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 energy future and to contribute a regional perspective to global events where issues related to energy sustainability are addressed, such as:

- development of guidelines for reforming energy pricing and removal of (consumption) subsidies for sustainable energy development (C);
- review of sustainable energy indicators for monitoring performance (C);
- regional input to the work and activities of the Commission on Sustainable Development (C);
- dialogue with the private sector and non-governmental organizations to facilitate transition to a sustainable energy future (C);
- dissemination of information and provision of technical assistance to countries with economies in transition on sustainable energy issues (C);
- participation in international efforts to develop bench-marking systems for industrial processes to promote environmentally benign best practices, notably in countries with economies in transition (C);
- reappraisal of the key energy issues confronting the UNECE region and the energy policy responses required to meet the challenges of sustainable energy development as outlined in the Committee's contribution to CSD-9 "One More Step on the Path to a Sustainable Energy Future" (C)
- a periodic exchange of views on energy security risks and their interactions with the global financial community and investments in the energy sector, an 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 organisations.

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

#### **4. RATIONAL USE OF ENERGY, EFFICIENCY AND CONSERVATION**

Work to be undertaken: To harmonize and develop guidelines and strategies to enhance energy efficiency and conservation, and to develop projects to reduce the energy efficiency gap between actual practice and best technologies, and among UNECE countries, in particular between the formerly centrally planned economies and the market economies, such as:

- development of guidelines for improving energy conservation and efficiency, in particular in countries with economies in transition (C, EE 21);
- networking and information exchange, including through world wide web (EE 21);
- development and implementation of energy efficiency demonstration zones in economies in transition (EE 21);
- institutional capacity building and training activities in business planning, financial engineering and project development (EE 21);
- assistance in securing financing for energy efficiency projects (EE 21);
- rational use of energy and water resources in Central Asia under the auspices of the Special Programme for Economies of Central Asia - SPECA (C, EE 21);
- dissemination of the Carbon Energy Emissions Handbook on CD-ROM (EE 21) through seminars and training courses;
- exchange of views and technical information on the efficiency of gas equipment and appliances (WP.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:

- annual reviews of the situation and prospects for European interconnections in the fields of electric power and natural gas (C, WP.G, GE.E);
- evaluation and dissemination of information to promote and facilitate the security of supply of electricity, particularly in 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 (GE.E);

- technical assistance and support to develop a regional electricity market and better integration of the electricity networks of countries with economies in transition (GE.E);
- updates of studies on Underground Gas Storage, Gas Grids and Map of Natural Gas Reserves (WP.G);
- assessment of the feasibility of developing an international programme to establish a transboundary corridor in the UNECE region for freight traffic by natural gas vehicles - NGVs, the Blue Corridor Project (WP.G).

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

## **6. COAL AND SUSTAINABLE ENERGY DEVELOPMENT**

Work to be undertaken: To provide an overview of the policies and programmes carried out in member States related to coal and its use, with focus on market adaptation of the coal sector, the role for coal in the context of the three pillars of sustainable development: economic, social and environmental, and also promotion of technical cooperation among member States in applying clean coal technologies and practices throughout the coal-energy chain, such as:

- periodic assessments of the prospects and outlook for coal and thermal power, including identification of any significant new developments affecting coal demand and supply in the region (C, GE.C);
- assessment of the opportunities for coal in a competitive energy market (C, GE.C);
- dissemination of information on technological innovations that will result in a reduced environmental impact from coal use, including in the area of coal bed and coal mine methane which would also result in economic benefits and increased safety at the mine site; (GE.C);
- periodic gathering of information and analysis on coal industry restructuring, particularly in countries with economies in transition (C, GE.C);
- assessment of the economic and social impacts of restructuring the coal industries and transfer of know-how and best practices to economies in transition (GE.C);
- evaluation, promotion and dissemination of information on agreed policies and cooperation on clean coal combustion in small and medium-sized boilers (GE.C);
- 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 countries with transitional economies (GE.C).

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

### **ANNEX III**

## **CALENDAR OF MEETINGS OF THE COMMITTEE ON SUSTAINABLE ENERGY AND ITS IMPLEMENTING BODIES IN 2004**

### **COMMITTEE ON SUSTAINABLE ENERGY**

- Energy Security Forum Executive Board, 24 March, Geneva
- Energy Security Forum, 4-5 October, Geneva
- Committee on Sustainable Energy, Extended Bureau Meeting, 6 October, Geneva
- Ad Hoc Group of Experts on Harmonization of Energy/Reserves Resources Terminology, 10 - 11 November, Geneva
- Ad Hoc Group of Experts on Coal in Sustainable Development, seventh session, 16 - 17 November, Geneva
- Ad Hoc Group of Experts on Electric Power, seventh session, 18 - 19 November, Geneva
- Committee on Sustainable Energy, fourteenth session, 25-27 May 2005, Geneva  
(the next full session of the Committee on Sustainable Energy will be held in 2005)

### **STEERING COMMITTEE OF THE ENERGY EFFICIENCY 21 PROJECT**

- Energy Efficiency 21 Project Bureau Meeting, 9-11 February, Geneva
- Steering Committee of the Energy Efficiency 21 Project, 24 – 26 May, Geneva
- Steering Committee of the Energy Efficiency 21 Project, Special Session on Renewable Energy Sources, 27 May, Geneva
- Ad Hoc Group of Experts on Energy Efficiency Investments for Climate Change Mitigation, 22 – 23 September, Geneva

### **WORKING PARTY ON GAS**

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

### **GAS CENTRE**

- Executive Board of the Gas Centre, Palais des Nations, 19 January 2004, Geneva
- Start up of the new Task Force Group (TFG 4) on Structure of the Gas Industry Palais des Nations, 10 February, Geneva
- Task Force Group (TFG3) on the Security of Gas Supply, 11 March, Geneva
- Task Force Group (TFG1) on Transportation and Tariffs, 5-6 April, Geneva