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COMMITTEE ON SUSTAINABLE ENERGY

Ad Hoc Group of Experts on Coal and Thermal Power Second session, 8-9 November 1999

REPORT

I. ATTENDANCE

1. The session was attended by representatives from the following UN/ECE member countries: Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Turkey, and United States of America.

2. The following intergovernmental organizations were represented: European Commission; CIS Interstate Euro-Asian Coal and Metal Community.

3. The following non-governmental organizations were represented: European Solid Fuels Association (CECSO); International Committee for Coal Petrology (ICCP); World Energy Council (WEC); Mediterranean Energy Observatory (OME).

II. ADOPTION OF THE AGENDA (agenda item 1)

4. The provisional agenda as contained in document ENERGY/GE.1/1999/2 was adopted.

III. ELECTION OF OFFICERS (agenda item 2)

5. Mr. Miles Greenbaum (United States of America) and Mr. Niculai Liciu (Romania) were re-elected Chairman and Vice-Chairman respectively.

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IV. THE ACTIVITIES AND PRIORITIES OF THE COMMITTEE ON SUSTAINABLE ENERGY, AND MATTERS FOR CONSIDERATION BY THE AD HOC GROUP OF EXPERTS ON COAL AND THERMAL POWER (agenda item 3)

6. The Director of the ECE Energy Division provided information for the guidance of the Ad Hoc Group of Experts in the implementation of its work programme. He stressed that the fundamental objectives of the ECE programme of work on energy were two, namely "sustainability", which for coal and thermal power was the promotion of sustainable production, transport and use of coal and coal-based energy, and "integration", which meant the strengthening of links, cooperation, trade and investments in the energy sector throughout Europe and the ECE region. Hence, the fuller integration of the energy economies of the ECE member countries in transition into the European and world economy was of prime importance.

7. The Division Director recalled that in 1997, the Commission had decided that a better balance was needed in the energy programme between work on sustainability issues and development issues, and that more emphasis needed to be given to the implications of energy production and use on the environment. As a result, the energy-environment dimension was a subject of particular attention in the energy programme. He further recalled that the ECE work programme would be subject to review in 2000 including the work programme on energy. Therefore, the involvement of the Committee on Sustainable Energy and its subsidiary bodies in the preparations for the annual session of the Commission on Sustainable Development (CSD-9) in 2001 and in a global initiative on promoting sustainable development, should be seen as a unique opportunity to launch a programme of work beyond 2000 for the Committee and its subsidiary bodies.

8. <u>Decision</u>: to take note of the above information and take it into account in the work of the Ad Hoc Group of Experts.

V. DEMAND, SUPPLY AND PROSPECTS FOR COAL IN THERMAL POWER GENERATION IN THE ECE REGION (agenda item 4)

Documentation: ENERGY/GE.1/1999/4

9. The secretariat presented an overview on the subject. A discussion was combined with consideration of agenda item 5.

VI. RESTRUCTURING OF THE EUROPEAN COAL AND THERMAL POWER SECTORS, WITH PARTICULAR ATTENTION TO MEMBER COUNTRIES IN TRANSITION (agenda item 5)

Documentation: ENERGY/GE.1/1999/5, 6, 9 and 9/Add.1; ENERGY/1999/3

10. Country reports on the restructuring process and programmes were presented and a discussion was held combining the topics of agenda items 4 and 5. A number of other points were discussed under agenda item 5, as follows.

11. A proposal made at the first session to prepare guidelines for the closure of mines and the decision to invite member countries to offer to host a workshop to define the scope, method and timetable for this work was considered again since no offer of host facilities for a workshop had been forthcoming.

12. The Russian Federation presented a report on the development of measures for cushioning the social consequences of the coal industry restructuring in Russia and proposed a new programme activity, namely to share information and experiences on the measures carried out in ECE member countries for managing and financing the social consequences of coal industry restructuring, since these issues had emerged as the most critical in the reform process. The suggested method of work was to invite ECE member countries to prepare national reports, which the Russian Federation would summarize into a consolidated report for consideration by the Ad Hoc Group of Experts at its next session.

13. In the subsequent discussion it was recommended to combine the activities on mine closure and the social consequences of coal industry restructuring since they were interlinked and to cover them together in the national reports and the consolidated report. The following countries offered to prepare national reports: Czech Republic, Poland, Romania, Russian Federation and Slovenia; others expressed their readiness to consider contributing to the activity. Further, the Ad Hoc Group of Experts suggested that the International Labour Organization be invited to cooperate in this ECE activity and to provide, if available, information for inclusion in the consolidated report.

14. The Ad Hoc Group of Experts reviewed a note prepared by the secretariat containing the main recommendations which have resulted from recent ECE seminars and workshops concerned with coal and thermal power. It discussed how to complete the set of policy and technical recommendations, which it has been mandated to submit to the Committee on Sustainable Energy and which is intended to help decision-makers in ECE member countries in designing and implementing strategies for coal production and utilization in the context of sustainable development.

15. The secretariat reported on the outcome of the Seminar on the Restructuring of the Coal and Thermal Power Sectors including the Ecological Aspects, which was organized by the Central Mining Institute of Poland in

Szczyrk in October 1999, in cooperation with the EC Energy Centre Katowice under the auspices of the UN/ECE. The Seminar was a continuation of previous such experts gatherings which have been held within the framework of the ECE energy programme during the past ten years. It represented a valuable opportunity to exchange up-to-date information about the most pressing problems and priorities in the restructuring process and to share experiences about solutions that had been adopted in the host country Poland and other ECE countries for dealing with them. The report on the Seminar with the recommendations will be disseminated as an ECE document.

16. <u>Decisions</u>:

- (a) to express gratitude to the Government and host organizations of Poland and other sponsors for organizing the Seminar on the Restructuring of the Coal and Thermal Power Sectors including the Ecological Aspects, which represents a valuable contribution to the ECE energy programme;
- (b) to invite member countries to organize future seminars, workshops or the like on coal and thermal power industry restructuring and related subjects in cooperation with ECE;
- (c) to invite Governments and international organizations to submit to the secretariat by 31 March 2000 reports on legislative, policy, technical and other measures carried for mine closures and for managing and financing the social consequences of restructuring, and to thank the Government of the Russian Federation for its readiness to transmit to the secretariat by 15 June 2000 a consolidated report for consideration by the Ad Hoc Group at its next session in September 2000 and a decision on further work;
- (d) to request the secretariat to inform the International Labour
 Organization of the aforementioned programme and to invite it to
 cooperate in its implementation and to provide information, if available,
 for inclusion in the consolidated report;
- (e) to invite Governments and international organizations to submit to the secretariat by 31 March 2000 corrections, additions and deletions for the note prepared by the secretariat (document ENERGY/GE.1/1999/5 dated 16 August 1999) to enable the completion of the set of policy and technical recommendations for a coal strategy in the context of sustainable development, which will be considered by the Ad Hoc Group of Experts as well as the Committee on Sustainable Energy at their sessions in September 2000.

VII. CLEAN COAL COOPERATIVE PROGRAMME TO PROMOTE CLEAN TECHNOLOGIES IN THE COAL TO ENERGY CHAIN (agenda item 6)

Documentation: ENERGY/GE.1/1999/7, 8 and 10; ENERGY/GE.1/SEM.2/2

17. Country reports and expert papers were presented and discussed on programmes and practices for achieving environmental and climate protection targets in the coal and thermal power sectors in ECE member countries as well as on the status and prospects of clean coal technology application in eastern Europe and the CIS.

18. The delegation of the Czech Republic reported on the Seminar and Study Tour on Clean Coal Technologies, which was organized by the Government of the Czech Republic and the Czech National Centre for Clean Coal Utilization in cooperation with ECE, in Kladno in June 1999. The technical visits provided an excellent opportunity to see the implementation of clean technologies in opencast coal mining as well as coal utilization for electricity and heat generation in the Czech Republic and to exchange experiences on issues of common interest. Participants in the Seminar were provided with first-hand information about the measures taken to carry out a country-wide mandatory environmental improvement programme in less than ten years. The Seminar was a continuation of previous similar events held in ECE member countries in the framework of the ECE energy programme to promote international cooperation in the application of clean coal and climate change mitigation technologies.

19. The secretariat informed the Ad Hoc Group of Experts of the readiness of the Central Mining Institute of Poland to organize, in cooperation with ECE and other sponsors in the first half of 2001, a Workshop on Clean Coal Technologies with technical visits to related installations in Poland.

20. <u>Decisions</u>:

- (a) to express gratitude to the Government and host organizations of the Czech Republic for having organized the Seminar and Study Tour on Clean Coal Technologies, which represented a significant contribution to the ECE energy programme;
- (b) to approve the holding of a Workshop on Clean Coal Technologies and to thank the Central Mining Institute of Poland for its readiness to organize such a workshop in 2001.

VIII. ACTIVITIES OF AND COOPERATION WITH VARIOUS INTERGOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATIONS (agenda item 7)

21. The following organizations made presentations, drawing attention to their activities and publications concerning energy in general and coal in particular, and the possibilities for future cooperation: European Commission; CIS Interstate Euro-Asian Coal and Metals Community; and World Energy Council.

22. <u>Decision</u>: to thank the representatives of the various intergovernmental and non-governmental organizations for the information and express appreciation for their readiness to cooperate in and contribute to the ECE coal and thermal power programmes.

IX. PROGRAMME OF WORK AND CALENDAR OF MEETINGS (agenda item 8)

Documentation: ENERGY/GE.1/1998/3, Annexes I, II and III

23. The Ad Hoc Group of Experts considered its programme of work and calendar of meetings for 1999-2000 and was reminded by the secretariat that upon delivery of this work, the Committee on Sustainable Energy would decide on the continuation of the coal and thermal power activities at its session in September 2000.

24. The secretariat informed the Ad Hoc Group of Experts that the Government of Romania and the National Company for Lignite of Oltenia would organize in Sinaia, in May or June 2000, a seminar or workshop on coal and thermal power industry restructuring and related issues, in cooperation with the European Community Energy Centre Katowice, and would welcome it if ECE were associated with and cooperated in this event.

The secretariat reported on the current status of the programme activity 25. of mobilizing extrabudgetary financial resources for implementation of the work programme, in particular the proposal to seek funding from the United Nations Fund for International Partnerships (UNFIP/Turner Foundation), which was approved at the first session of the Ad Hoc Group of Experts in October 1998. Most of the members of the open-ended Informal Advisory Group, who at that time and subsequently had expressed interest in cooperating with the secretariat in the necessary work, had favoured as project proposal for UNFIP the subject of "Investment Promotion of Climate Change Mitigation Technologies - Coalbed/Coalmine Methane Extraction and Utilization in Eastern Europe and the CIS", which would fall into the UNFIP priority area of energy and climate change. Consequently, a project summary had been drawn up on this subject and the secretariat had invited the members of the Informal Advisory Group to submit letters expressing their support and readiness to contribute in cash and/or kind to the implementation of the project. At the beginning of

1999, the secretariat was informed that new UNFIP programme frameworks and guidelines for project preparation were being elaborated and that those for energy and climate change would be ready by the end of the year. A complete project proposal should therefore now be prepared for submission to UNFIP as soon as possible. Mr. M. Greenbaum, Chairman of the open-ended Informal Advisory Group, stressed that Governments and international organizations ready to cooperate in this project should send their letters of support to the secretariat before the end of this year.

26. <u>Decisions</u>:

- (a) to request the secretariat to attach, as Annex I to this report, the terms of reference of the Ad Hoc Group of Experts on Coal and Thermal Power as approved by the Committee on Sustainable Energy at its session in November 1997;
- (b) to approve the programme of work for 1999-2000 as modified during the second session and as set out in detail in Annex II to this report;
- (c) to attach the complete calendar of meetings of the Committee on Sustainable Energy for 1999-2000 as Annex III to this report;
- (d) to express appreciation to the Government of Romania and the other sponsor organizations for associating ECE with the seminar on coal industry restructuring, which will be held in Romania in May or June 2000, and to request the secretariat to distribute the programme and call for papers as soon as it becomes available;
- (e) to continue the fund raising activity for obtaining extrabudgetary resources and to request the secretariat to prepare, in cooperation with the Governments and organizations having expressed their readiness to support and contribute to a project on the subject of "Investment Promotion of Climate Change Mitigation Technologies - Coalbed/Coalmine Methane Extraction and Utilization in Eastern Europe and the CIS", a draft project proposal by the end of January 2000 and a final project proposal within one month thereafter for submission to UNFIP according to the established procedures and channels.

X. OTHER BUSINESS (agenda item 9)

27. The Ad Hoc Group of Experts expressed its gratitude to all countries and organizations which had participated in and contributed to the implementation of the programme of work and expressed the wish for continuation of this support in the future.

28. Mr. M. Greenbaum, as representative of the United States Department of Energy, which is proposing to organize an International Conference on Hybrid Energy Systems for Sustainable Development in cooperation with the ECE Committee on Sustainable Energy and other international organizations, informed the Ad Hoc Group of Experts of the status of preparations for the Conference, tentatively scheduled to be held in Washington D.C. in October 2000.

XI. ADOPTION OF THE REPORT OF THE SECOND SESSION (agenda item 10)

29. The Ad Hoc Group of Experts adopted on 9 November 1999 the decisions taken at its second session. A short report on the session would be prepared by the secretariat and circulated to the Bureau of the Meeting for approval, upon which it would be given general distribution.

ANNEX I

TERMS OF REFERENCE OF THE AD HOC GROUP OF EXPERTS ON COAL AND THERMAL POWER

The Ad Hoc Group of Experts on Coal and Thermal Power is established for a period of two years by the Committee on Sustainable Energy to carry out, under the Committee's guidance, activities related to coal and its use for thermal power, with focus on market adaptation of the coal sector as well as on the environmental aspects of coal in power generation, including clean coal technologies.

The tasks of the Ad Hoc Group of Experts are:

 (a) to exchange information on the policies and programmes carried out in the member States for achieving environmental protection and sustainable development in the coal-energy chain and in thermal power generation;

(b) to identify significant new developments affecting coal demand and supply for power generation in the member countries;

(c) to provide a forum for exchange of information and experience among member countries on the ongoing institutional restructuring and market adaptation of the coal and thermal power sectors;

(d) to promote technical cooperation among member States in applying institutional and environmental improvements, including clean coal technologies and practices, throughout the coal-energy chain and in thermal power generation;

(e) to pay special attention to the transfer of knowledge and experience in the aforementioned areas to member countries in transition;

(f) to aim at strengthening inter-agency cooperation, cooperation with other governmental and non-governmental organizations and the involvement of the business community for reaching the above objectives.

ANNEX II

PROGRAMME OF WORK FOR 1999-2000

Introduction

The overall objective of the work programme is to submit to the Committee on Sustainable Energy a set of policy and technical recommendations for future directions specific to each of the programme activity, for the attention of decision-makers in energy. The activities and output of each programme activity are intended to fulfil two purposes, namely: (i) to provide immediate responses to specific issues, and (ii) to provide inputs for the set of recommendations.

PROGRAMME ACTIVITY 06.5.1: DEMAND, SUPPLY AND PROSPECTS FOR COAL IN THERMAL POWER GENERATION IN THE ECE REGION

<u>Objectives</u>: Collection of information on the situation and prospects, in support of the set recommendations and the work under programme activities 06.5.2 and 06.5.3.

<u>Work to be undertaken</u>: To collect information and identify significant new developments, including environmental implications, affecting coal demand and supply for thermal power generation in the member countries.

<u>Methods of implementation</u>: (i) Country profiles prepared by member countries in 1999 will be updated in 2000 for consideration by the Ad Hoc Group of Experts at its annual session and will constitute an input to the set of recommendations; (ii) A questionnaire on coal demand and supply issued by the secretariat for replies by member countries in 1999 will be updated in 2000 to form an input for the set of recommendations.

<u>Duration</u>: The programme activity, which is expected to last two years, will end upon delivery of the data and information required for the final set of recommendations. The Committee on Sustainable Energy will decide at that time whether or not coal and thermal power issues warrant continuation of the efforts.

PROGRAMME ACTIVITY 06.5.2: RESTRUCTURING OF THE EUROPEAN COAL AND THERMAL POWER SECTORS, WITH PARTICULAR ATTENTION TO MEMBER COUNTRIES IN TRANSITION

<u>Objectives</u>: Making available knowledge and expertise, with a view to facilitating the restructuring and market adaptation process in the countries in transition.

<u>Work to be undertaken</u>: To develop an understanding of issues and develop potential solutions related to the restructuring and market adaptation of the coal and thermal power sectors in the region.

<u>Methods of implementation:</u> (i) country status reports prepared by member countries in 1999 will be updated in 2000 for consideration by the annual session of the Ad Hoc Group of Experts to serve the two purposes stated in the introduction;(ii) reports will be prepared by Governments and international organizations on measures carried out for mine closure and for managing and financing the social consequences of restructuring, and a consolidated report will be prepared by the Government of the Russian Federation for consideration by the Ad Hoc Group of Experts in 2000; (iii) A seminar on restructuring and market adaptation of the coal and thermal power sectors including the economic and social consequences, will be held in 19999 and/or 2000 in transition countries (time and place to be determined) drawing also on expertise from the business community.

<u>Duration</u>: As in 06.5.1, this programme activity, which is also expected to last two years, will end upon delivery of the data and services required for achieving the dual purpose stated in the introduction. Continuation as previously noted.

PROGRAMME ACTIVITY 06.5.3: CLEAN COAL COOPERATIVE PROGRAMME

<u>Objectives</u>: To promote cooperative activities for advancing the use of clean coal technologies and practices. To pay special attention to the transfer of knowledge and experience to member countries in transition.

<u>Work to be undertaken</u>: To exchange information on the policies and programmes carried out in the member States for achieving environmental protection and sustainable development in the coal and thermal power sector. To promote technical cooperation among member States in applying clean coal technologies and practices throughout the coal-energy chain. To facilitate the development and implementation of projects in the fields of selective coal mining operations, coal preparation and upgrading, pre-combustion and combustion, coal gasification, methane recovery and use, retrofitting and repowering of existing coal use facilities and thermal power plants, increasing thermal efficiency, combined heat and power generation and district heating based on coal, management and incentives for the utilization and disposal of residue and by-products from coal mining and coal combustion, such as fly ash and CO₂. To explore new areas of clean coal combustion in the thermal power sector, such as co-combustion with biomass or municipal waste.

<u>Methods of implementation</u>: (i) Reports prepared by member countries of their clean coal programmes in 1999 will be updated in 2000 for consideration at the

annual session of the Ad Hoc Group of Experts; (ii) Case studies on completed or ongoing projects will be presented by member countries at the annual session of the Ad Hoc Group of Experts and summarized and published, subject to the availability of extra-budgetary resources, (iii) Seminars and study tours will be organized in 2000 in countries which offer host facilities; short technical advisory missions and/or consultations will be organized in 2000 for member countries in transition subject to requests and offers of such services. The information and experience resulting from the work in (i) to (ii) will contribute also an input to the final set of recommendations.

<u>Duration</u>: The programme activity is expected to last two years, and will end upon delivery of the data and services required for achieving the dual purpose stated in the introduction. Continuation as previously noted.

PROGRAMME ACTIVITY 06.5.4: MOBILIZATION OF EXTRABUDGETARY FINANCIAL RESOURCES FOR IMPLEMENTATION OF THE WORK PROGRAMME

<u>Objective</u>: To endeavour to raise extrabudgetary financial resources to overcome a major constraint, i.e. the lack of financial resources, which is hampering the implementation of the programme of work of the Ad Hoc Group of Experts.

<u>Work to be undertaken:</u> To prepare a project proposal for submission in early 2000 for funding consideration by UNFIP/Turner Foundation. It has to be borne in mind that project proposals are solicited from United Nations organizations by the United Nations International Partnership Trust Fund (UNFIP) and reviewed in the context of established priorities and criteria.

<u>Method of implementation:</u> With regard to the preparation of a proposal, the Ad Hoc Group of Experts decided to establish an open-ended Informal Advisory Group composed of Governments and organizations which indicated their interest and active participation in the necessary work. Countries and organizations interested in joining the informal advisory group and in contributing to the project in cash and/or kind are invited to nominate members for cooperation with the secretariat by the end of 1999.

<u>Duration</u>: The programme activity will end upon decision of the UNFIP on the project proposal. The Committee on Sustainable Energy will decide if the fund raising efforts should be continued thereafter.

ANNEX III

CALENDER OF MEETINGS OF THE COMMITTEE ON SUSTAINABLE ENERGY YEAR 2000

COMMITTEE ON SUSTAINABLE ENERGY

- Committee on Sustainable Energy, tenth session, 26-28 September, Geneva
- High-Level Multi-Stakeholder Forum on Sustainable Energy in a Competitive Market: Forging Partnerships, 27 September, Geneva
- Ad hoc Group of Experts on Coal and Thermal Power, third session, 25 September, Geneva
- Intergovernmental Task Force for the preparation of the High-Level Forum on Sustainable Energy, first and second sessions (dates and place to be determined)
- Ad Hoc Group of Experts on Extension of European Electricity Interconnection, third session, 29 September, Geneva
- Seminars on the Application of the UN Framework Classification for Reserves/Resources (India, Bulgaria, Russian Federation, dates to be determined)
- Task Force on the Development of Mining Legislation and Regulations (date and place to be determined)

STEERING COMMITTEE OF THE ENERGY EFFICIENCY 2000 PROJECT

- Ad Hoc Meeting on Energy Efficiency Investment Project Development for Climate Change Mitigation, 13-14 January, Geneva
- Steering Committee of the Energy Efficiency 2000 Project, 29-31 May, Geneva
- Ad Hoc Group of Experts on Energy Efficiency Standards and Labels (date and place to be determined)
- Ad Hoc Group of Experts on Financial Engineering (date and place to be determined)

WORKING PARTY ON GAS

- Working Party on Gas, tenth session, 26-28 January, Geneva
- Ad Hoc Group of Experts on Supply and Use of Gas, first session, 25 January, Geneva
- Ad Hoc Group of Experts on Natural Gas Resources, twenty-third session, 15-16 June, Geneva

SYMPOSIA, WORKSHOPS AND STUDY TOURS

- International Conference on Hybrid Power Systems for Sustainable Development (Washington DC, October)
- Workshop on Restructuring of Coal and Thermal Power Sectors, Romania (date to be determined)
- Seminar and study tour on Electricity interconnection and electricity market and trading, United States (date to be determined)
