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EXECUTIVE BODY FOR THE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

Working Group on Strategies and Review

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Item 5 of the provisional agenda

TECHNO-ECONOMIC ISSUES

Techno-economic data and the revision of the 1999 Gothenburg Protocol

Report of the Chair of the Expert Group on Techno-economic Issues prepared in consultation with the secretariat

INTRODUCTION

1. This report presents the results of the ninth meeting of the Expert Group on Techno-economic Issues, held in Paris on 10 April 2006. The meeting assessed progress in the development of ECODAT, a database of techno-economic information; discussed comments received on the synopsis sheets of background information on selected sectors circulated to the Heads of Delegation of the Working Group; and considered work necessary for a revision of annexes IV, V and VIII of the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (the Gothenburg Protocol). Conclusions and recommendations are listed in section VI. The meeting was followed by a one-day seminar (11 April 2006) on emerging technologies and the role of the Expert Group in the evolution of emission abatement

technologies. Presentations from both meetings and further information are available at www.citepa.org/forums/egtei_index.htm.

2. Experts from the following Parties to the Convention attended the meeting of the Expert Group: Austria, Belgium, the Czech Republic, Finland, France, Italy, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom. Also present were industry experts from the Association of European Adhesive Manufacturers (FEICA), British Petroleum (BP) International Limited, the European Cement Association (CEMBUREAU), the European Chemical Industry Council (CEFIC), the European Coil Coating Association (ECCA), CONCAWE (the oil companies' European association for environment, health and safety in refining), Flexible Packaging Europe, the European Association of Internal Combustion Engine Manufacturers (EUROMOT), the Union of the Electricity Industry (EURELECTRIC), the National Association of Metal Can Manufacturers (SNFBM), the Association of European Light Metal Packaging Manufacturers (SEFEL) and Total France. A representative of the Centre for Integrated Assessment Modelling (CIAM) was also present, as were representatives of the French-German Institute for Environmental Research (IFARE), the Interprofessional Technical Centre for Studies on Atmospheric Pollution (CITEPA) and the French Agency of Environment and Energy Management (ADEME). The Chair of the Working Group on Strategies and Review and a member of the secretariat also attended.

3. Mr. J.-G. Bartaire (France) and Mr. T. Pignatelli (Italy) co-chaired the meeting, which was hosted by CITEPA and France.

I. INTRODUCTORY REMARKS AND OBJECTIVES

4. The Co-Chairs underlined the importance of the Expert Group in validating techno-economic data essential for the derivation of cost-efficient air pollution reduction strategies. They outlined the objectives of the meeting: to continue to assess progress in developing techno-economic information; to continue to develop methodologies for estimating costs of abatement technologies in light of existing regulations; to provide default investment and operating cost data as a European average; and to offer country-specific parameters, in consultation with national and industry experts, in a transparent manner.

5. Mr. R. Ballaman, Chair of the Working Group on Strategies and Review, informed participants of the results of the thirty-seventh session of the Working Group and its expectations from the Expert Group. He noted the importance of having data for ECODAT be accepted by countries and by CIAM for RAINS in light of the review of the Gothenburg Protocol, which had entered into force in May 2005. As required by article 10 of the Protocol, the first review had started in December 2005, within one year after the Protocol's entry into

force. Parties planned to complete the review by the end of 2007. Elements to be considered included best scientific information on health effects; critical loads; integrated assessment modelling; technological developments; changing economic developments; and databases, such as ECODAT, on emissions and abatement techniques.

6. Mr. Ballaman noted that the technical annexes to the Protocol would be reviewed, in particular annex V on emission limit values (ELVs) for NOx for new stationary engines and annex II on emission ceilings. Moreover, the review would cover the scheduled evaluation of ELVs for new and existing boilers and process heaters of more than 50 MW_{th} and new and heavy-duty vehicles. Parties would also need to consider how to handle particulate matter (PM) in any future instrument. He also noted the need to update the guidance document on economic instruments, although this was included in the workplan of the Network of Experts on Benefits and Economic Instruments.

II. PROGRESS OF THE EXPERT GROUP

7. The Expert Group discussed the validation of data. It underlined the importance of Parties' experts being able to validate data before it was accepted in ECODAT. The suggestion was made to post on the website of the Expert Group a list of countries that had provided data and comments. The Expert Group noted that its most recent report had indicated which sectors had already been incorporated into ECODAT and RAINS and which still needed to be considered (EB.AIR/WG.5/2005/6, annex).

8. Mr. M. Amman (CIAM) noted that sectors had been finalized by the Expert Group and incorporated into RAINS beginning in 2005. This had been followed by bilateral consultations with 25 Parties. Synopsis sheets summarizing the information were made available to Parties, including an inventory of available measures, removal efficiencies and costs. Cost data were not part of the baseline projection and could be treated differently. Figures in the database were not modified once agreement was reached with a Party.

9. Mr. B. Calaminus (IFARE) pointed out the importance of increased transparency, noting that changes made to the data through bilateral consultations were made transparent to other Parties. Mr. Amman noted that since all data were available on the Internet, it was possible to locate data for each sector for countries participating in ECODAT.

10. Mr. Bartaire informed participants about the European Commission's Clean Air for Europe (CAFE) programme's thematic strategy on air pollution. CIAM was developing baseline scenarios for European Union Member States through 2020, which would also be important for the review of the Gothenburg Protocol.

11. Mr. Amman clarified that CIAM was currently working on baseline scenarios for CAFE, although there was not yet a clear indication of current ambition levels in terms of robustness and uncertainties. It was also not yet clear which energy scenario would be used and how air quality would be measured in terms of emissions.

III. COMMENTS AND FEEDBACK ON SYNOPSIS SHEETS

12. At the request of the Working Group on Strategies and Review at its thirty-seventh session, synopsis sheets on techno-economic data available in selected sectors were circulated to heads of delegations. The synopsis sheets provided summaries of background information for the following sectors: refineries, the glass industry, the cement industry and large combustion plants. Mr. P. Kerdoncuff (CITEPA) presented a summary of comments and feedback received from national experts and industry representatives. Comments involved the methods used, the adequacy of information provided on costs and other parameters, and compatibility with RAINS.

13. Mr. S.A. Herman (Netherlands) said comments from experts in his country involved the years presented for cost data and how these would be translated into costs for other years.

14. The representative of CONCAWE commented that figures in ECODAT were not necessarily representative of reality and that the oil companies were currently assessing the figures in light of these uncertainties.

15. Mr. Calaminus pointed out that the impetus for the work of the Expert Group was to take data from a subset of plants and aggregate the information to be used in RAINS. It was necessary to apply the Expert Group's approach to a specific sector in one country and then test its applicability to other countries and other sectors.

16. Mr. M. Woodfield (United Kingdom) noted that he had received very few responses from industry in the United Kingdom. One reason for the lack of interest was that the data were often not known or recognized by a country's own industries.

17. Mr. Amman indicated that there were two sources for energy scenarios used to determine energy consumption in different sectors per country – PRIMES and the national energy scenarios. The PRIMES model covered more extreme scenarios. The energy scenario affected fuel consumption, and this in turn had an impact on fuel switching.

IV. REVISION OF ANNEXES IV, V AND VIII TO THE GOTHENBURG PROTOCOL

18. The Expert Group discussed work necessary for a possible amendment of annexes IV, V and VIII to the 1999 Gothenburg Protocol, as indicated in its workplan. In accordance with article 3, paragraph 4, to the Protocol, "Limit values for new and existing boilers and process heaters with a rated thermal input exceeding 50 MW_{th} and new heavy-duty vehicles shall be evaluated by the Parties at a session of the Executive Body with a view to amending annexes IV, V and VIII" no later than two years after the date of entry into force of the Protocol.

19. Annex IV concerns limit values for emissions of sulphur from stationary sources; annex V covers limit values for emissions of nitrogen oxides from stationary sources; and annex VIII covers limit values for fuels and new mobile sources. It remained an open question as to whether a possible revision of the Protocol might require an annex covering limit values for emissions of PM from stationary sources; there were currently no ELVs in the Protocol related to PM.

20. Following the meeting, the Co-Chairs provided the secretariat with a draft proposal for work on the revision of the annexes and a time schedule for completion of each sector in 2006 and 2007.

V. OTHER BUSINESS

21. Mr. E. Vésine (ADEME) reported that he had presented the work of the Expert Group to the Integrated Pollution Prevention and Control (IPPC) Bureau and the Institute for Prospective Technological Studies (IPTS) in Seville (Spain). He noted that data produced by the Expert Group were used in the IPPC Best Available Techniques Reference (BREF) documents on surface treatment with solvents. He underlined the importance of having information on costs for the implementation of best available technologies (BAT).

22. Mr. Pignatelli presented information on a survey of small combustion installations in the commercial sector in Italy, carried out by the Italian National Agency for New Technologies, Energy and the Environment (ENEA). As there were currently no abatement technologies in place, Italy proposed to identify one or two reference boilers to develop a methodology. Over the next five years a fuel switch from oil to gas for medium boilers could be foreseen. Some experts recommended examining different types of boilers in different age classes and looking at the change in performance over time. This information could be derived from information provided by boiler manufacturers.

VI. CONCLUSIONS AND RECOMMENDATIONS OF THE EXPERT GROUP

23. The Expert Group agreed to report the following conclusions and recommendations to the Working Group on Strategies and Review:

(a) The synopsis sheets had been appreciated by the Working Group on Strategies and Review Heads of Delegation, although work was needed on additional sectors, including small combustion plants.

(b) Sweden would coordinate a test among Nordic countries of the methodology used by the Expert Group for large combustion plants and would report on this at the next meeting of the heads of delegation of the Working Group.

(c) Preparatory work would continue on the updating of annexes IV, V and VIII to the Gothenburg Protocol, taking into consideration current ELVs in recent European Community regulations.

(d) The Expert Group would continue to follow up on work on emerging technologies, drawing on the results of the seminar held following the meeting.

(e) The Expert Group would aim to reach agreement on synopsis sheets for the glass and cement industries and oil refineries. For refineries, a meeting would be organized between national experts and CONCAWE as soon as possible.

(f) An agreement on large combustion plants was linked to the willingness and availability of Sweden and the Netherlands to test the methodology used by the Expert Group at the national level.

(g) The Expert Group would increase efforts to establish contacts with countries outside the European Union and to involve them in its work.

(h) Communication should be enhanced and transparency increased in the work of the Expert Group.