

**Economic and Social Council**Distr.: General
18 October 2018

Original: English

Economic Commission for Europe

Committee on Sustainable Energy

Group of Experts on Cleaner Electricity Production from Fossil Fuels

Fourteenth session

Geneva, 28 September 2018

**Report of the Group of Experts on Cleaner Electricity
Production from Fossil Fuels****I. Introduction**

1. The fourteenth session of the Group of Experts on Cleaner Electricity Production from Fossil Fuels was held on 28 September 2018.
2. This report summarizes the discussions of the Group of Experts at its fourteenth session. All the documents and presentations of the session are available on the United Nations Economic Commission for Europe (ECE) website¹.

II. Attendance

3. The meeting was attended by experts from the following ECE member States: Bosnia and Herzegovina, Canada, Croatia, Czech Republic, Georgia, Greece, Latvia, Poland, Romania, Russian Federation, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland and United States of America.
4. An expert from Brazil participated under Article 11 of the Commission's Terms of Reference.
5. The following international organization was represented: International Energy Agency (IEA) Clean Coal Centre (IEACCC).

¹ Official documents of the session are available at <http://documents.un.org/>. Unofficial room documents and presentations delivered at the meeting are available on the ECE website at: <https://www.unece.org/index.php?id=48532>.

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6. Representatives of the following non-governmental organizations participated: Assocarboni General Association of Coal Operators, Brazilian Coal Association, World Coal Association and World Energy Council.
7. The private sector and academia were also represented.

III. Adoption of the agenda (agenda item 1)

Documentation: ECE/ENERGY/GE.5/2018/1

8. The provisional agenda as contained in the document ECE/ENERGY/GE.5/2018/1 was adopted without amendment.

IV. Opening remarks (agenda item 2)

9. In his opening remarks, the Chair informed the Group of Experts about the outcomes of the informal workshop on cleaner electricity held on 27 September 2018. The interactive workshop discussed some of the current activities of the Group of Experts, such as guiding principles for financing clean energy projects in the context of the 2030 Agenda for Sustainable Development, high-efficiency, low-emissions (HELE) technologies, carbon capture use and storage (CCUS). A number of potential future activities were also discussed including the transformation of the energy system through electricity, the synergies between fossil fuels and renewable energy, market design, digitalisation, e-mobility, and sustainable cities. The Chair noted that some of the potential new activities would necessitate expanding the expert base of the current Group of Experts, both geographically and substantively. The workshop reinforced the notion that the core strength of the Group of Experts is its expertise on cleaner electricity generation from fossil fuels, and in particular from coal. While the Group of Experts will not lose focus on its core activities—financing energy projects, CCUS and HELE—it will look with an open mind at all other activities within its expanded scope of work, as requested by the Committee on Sustainable Energy at its twenty-seventh session.

10. In his opening remarks, the Director of the ECE Sustainable Energy Division highlighted the work of the Division and described a number of its flagship activities. The Director updated the Group of Experts on the Outcomes of the High Level Political Forum on Sustainable Development (HLPF) held in July 2018 in New York. The 2018 HLPF discussed progress in achieving the 2030 Agenda for Sustainable Development, focusing on several Sustainable Development Goals (SDG). One of them was the SDG 7 on sustainable energy. The policy briefs on progress towards attaining the goals of the 2030 Agenda presented at HLPF demonstrated that the world is not on track to achieve targets related to sustainable energy. A separate question is whether the current metrics—the indicator framework used to measure progress—reflect this progress accurately, equitably and comparably. As an example, ECE argued that energy access was not only about having physical access to infrastructure, but it was also about availability, affordability and quality of the energy services provided. The Director updated participants on the progress in several flagship projects under the Committee on Sustainable Energy: resource classification and resource management, methane emissions measuring and abatement, pathways to sustainable energy, and energy efficiency standards in buildings. Significant progress has been achieved in these activities due in part to established partnerships with governments, the private sector, and the research and academic community.

V. Election of officers (agenda item 3)

11. In 2017, the Group of Experts elected a new Bureau to serve for two years starting from the close of the thirteenth session. Following nomination by the Ministry of Economic Development of Italy, the Group of Experts elected Mr. Fabio Ferranti, Director-General, Higher Institute for Protection and Research of the Environment (ISPRA), Italy, to join its Bureau.

VI. Activities and priorities of the United Nations Economic Commission for Europe and its Committee on Sustainable Energy (agenda item 4)

12. The secretariat updated the Group of Experts on the relevant decisions, recommendations and outcomes of the twenty-seventh session of the Committee on Sustainable Energy, 26-27 September 2018, including the outcomes of the session on 27 September dedicated to the role of electricity in facilitating deep transformation of the energy system. The Group of Experts discussed concrete steps on how to operationalize the Committee's requests and/or recommendations.

13. Following the recommendation of the Committee to explore opportunities for closer cooperation among its subsidiary bodies, the Group of Experts was also briefed on current and planned cross-cutting initiatives, including the joint work on the transition of the energy sector and the "Pathways to Sustainable Energy" project recently started under the auspices of the Committee.

14. Following its participation in the joint session of the Committee on Sustainable Energy on "Deep Transformation of the Energy System through Electricity" and the informal consultative workshop of electricity experts on 27 September, the Group of Experts concluded that it is well-positioned to take the lead on activities related to the transition to sustainable electricity.

15. Noting the cross-cutting and transformative nature of electricity, the Group of Experts invited other subsidiary bodies of the Committee, and other sectoral Committees of ECE, to collaborate on electricity-related activities.

16. Noting the complex work ahead, the Group of Experts concluded that it would be beneficial if the Committee on Sustainable Energy decides to change the name of the Group of Experts to the Group of Experts on Cleaner Electricity System. This would enable the Group of Experts to implement additional activities in the context of the transition to sustainable electricity (paragraphs 24 and 31(c) from the report of the twenty-seventh session of the Committee on Sustainable Energy (ECE/ENERGY/119) refer:

Para 24: Requested the increased involvement of its six subsidiary bodies, in particular through (i) research on existing policies and measures, and suggestions for possible innovative policy options in their respective areas; (ii) development of adaptive, cross-cutting and holistic policy options and the formulation of various climate, technology and policy scenarios; and (iii) reactions on targets, metrics, and signposts as basis for the early-warning system. Such feedback is requested for the preparatory meeting of the Committee on 16 May 2019 and for subsequent activities of the "Pathways to Sustainable Energy" project.

Para 31(c): Requested its six subsidiary bodies to play lead roles at the 16 May 2019 event and at the twenty-eighth session to clarify their expert groups' role in addressing the challenges. The expert groups should consider recommendations on the effectiveness and efficiency of current approaches and whether the current structure and work plans adequately support them in meeting the challenges they face.

17. In light of the request of the Committee, the Group of Experts agreed to explore the following topics and to revert with recommendations regarding activities, deliverables, pending available resources:

- (a) Electricity as a primary vehicle for achieving deep transformation of the energy system;
- (b) Synergies in energy mix between flexible clean coal, natural gas and renewables through properly structured balancing markets;
- (c) Power market design for the 2030 Agenda (including enabling distributed generation);
- (d) High-efficiency, low-emissions (HELE) technologies;
- (e) Carbon capture use and storage (CCUS);
- (f) Digitalisation;
- (g) E-mobility;
- (h) ICT in support of high performance buildings and smart, sustainable cities;
- (i) Decarbonisation of energy: what is the order of merit as defined by economics, environment, and societal needs;
- (j) Financing infrastructure;
- (k) Clean electricity in support of Committee's pathways activities.

18. Noting the Committee's request to consider how it could contribute to setting standards for fossil fuel-fired power plants (including HELE power plants) in the ECE region, the Group of Experts agreed to undertake a transparent and inclusive process for development of emissions and efficiency standards for electric power plants. The Group of Experts also agreed to pursue recommendations for power market design, and best practices for electricity to play integrative roles in energy markets (accelerated uptake of renewable energy and enhanced engagement of consumers through properly structured balancing markets; improved performance of sustainable urban environments through smart buildings, smart cities, smart networks, and smart transport).

VII. Best practices in high-efficiency low-emissions technologies in the United Nations Economic Commission for Europe region (agenda item 5)

19. A report on the deployment of high-efficiency low-emissions (HELE) technologies was presented, followed by a discussion on the drivers for and barriers to HELE deployment, and other factors affecting decisions to increase the energy efficiency of thermal power plants.

20. The Group of Experts recommended to develop guidelines leading, eventually, to an ECE standard on high-efficiency low-emission power generation from coal, natural gas, fuel oil, and biomass. Recognizing that this work may take time to accomplish, the Group of Experts decided to start with generic guidelines on minimum efficiency and carbon dioxide reduction standards. The Group of Experts noted that both national and international financing institutions and private sector lenders could benefit from this process.

VIII. Recommendations on removing obstacles to carbon capture and storage (agenda item 6)

21. A round table on ways to develop and deploy carbon capture, use and storage (CCUS) technologies reviewed recent developments and offered some general and country-specific recommendations on CCUS, including to the United Nations Framework Convention on Climate Change (UNFCCC), in an effort to accelerate implementation of the Paris Accord.

22. Following the recommendation of agenda item 5, the Group of Experts recommended to develop guidelines leading to an ECE standard on financing carbon capture, utilization and storage. the Group of Experts concluded that both national and international financing institutions and private sector lenders could benefit from this process.

IX. Opportunities in combined heat and power, gasification and chemical use of coal (agenda item 7)

23. The Group of Experts was updated on the developments in combined heat and power (CHP) and other non-energy uses of coal. The Group of Experts discussed elements of a report on the opportunities in CHP, gasification and chemical use of coal that is to be drafted by December 2019.

X. Preparations for the fifteenth session of the Group of Experts (agenda item 8)

24. The Group of Experts recommended that the substantive portion of its fifteenth session should stem from the Group of Experts 2018-2019 work plan.

25. The fifteenth session of the Group of Experts will be held in the autumn of 2019 in Geneva.

XI. Any other business (agenda item 9)

26. The Group of Experts noted the need to expand its membership from both within and beyond the ECE region, and to secure additional extrabudgetary resources. Both are prerequisites to be able to deliver on the current work plan. The Group requested the secretariat to work, in cooperation with the Bureau, to identify new members, as well as potential sources of funding.

27. Noting that a request is to be made by the Committee on Sustainable Energy at its upcoming twenty-seventh session in Geneva, the Group of Experts recommended to:

(a) Engage in a discussion with the other subsidiary bodies of the Committee on the role, programme of work, structure, and mode of operation of the Committee, and;

(b) Review its own mandate and programme of work in order to ensure their relevance to, and suitability for delivering on the objectives of the 2030 Agenda for Sustainable Development. The Group of Experts underlined that it stands ready to contribute from its experience and expertise to the summary document containing recommendations on these matters that is to be jointly prepared by the subsidiary bodies of the Committee and presented to the Committee's twenty-eighth session in 2019.

XII. Adoption of conclusions and recommendations (agenda item 10)

Documentation: CEP-12-2018-INF.1 - Unofficial room document: Draft Conclusions and Recommendations arising from the Group of Experts on Cleaner Electricity Production from Fossil Fuels dated 6 October 2017

28. The conclusions and recommendations were adopted and are included under the relevant agenda items highlighted in this report.

XIII. Adoption of the report and close of the meeting (agenda item 11)

29. The report of the meeting was adopted, including the conclusions and recommendations, subject to any necessary editing and formatting.
