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**Economic Commission for Europe****Committee on Sustainable Energy****Thirtieth session**

Geneva, 22-24 September 2021

Item 7(d) of the provisional agenda

**Future work of the Committee on Sustainable Energy:****Approval of documents****Work Plan of the Group of Experts on Renewable Energy for 2022-2023****Prepared by the Group of Experts on Renewable Energy****I. Introduction**

1. Since its first session (November 2014), the Group of Experts on Renewable Energy has been implementing concrete activities to help significantly increase the uptake of renewable energy in the region and therefore contribute to fulfil the obligations of the Paris Agreement on Climate Change and achieve goals and targets of the 2030 Agenda for Sustainable Development.
2. According to its Terms of Reference, the Group of Experts focuses on activities related to (a) regulatory and policy dialogue and (b) sharing of best practices on various renewable energy sources with a view to increasing the share of renewables in the global energy mix.
3. The Group of Experts requests the Committee on Sustainable Energy to renew its mandate until 31 December 2023, with the possibility of extension.

**II. Concrete activities**

4. Building on the activities of the Work Plan for 2020-2021 and the recommendations from the Group of Experts and its Bureau, the Group of Experts will undertake the following activities in the United Nations Economic Commission for Europe (ECE) region. Deliverables which require extrabudgetary funding for implementation are highlighted as “dependent on extrabudgetary funding”, and do not fall into the set of core activities to be delivered by the Group of Experts. In addition, following the recommendation of the Committee on Sustainable Energy to strengthen the cooperation among its subsidiary bodies, the Group of Experts will engage, within the scope of its expertise, in the joint work on transition of the energy sector. It will also continue to actively participate in the implementation and follow-up work to the decarbonization of the economy, including through the Pathways to Sustainable Energy Project in line with international agreements and in support of the 2030 Agenda for Sustainable Development.

5. The Group of Experts will continue to support and promote the role of renewable energy in attaining the Sustainable Development Goals (SDGs) – and in particular Goal 7 – to ensure access to affordable, reliable, sustainable and modern energy for all. The Group of Experts will contribute to achieve the specific target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix. In addition to Goal 7, renewable energy is relevant to attaining many other SDGs, such as: Goal 1 (no poverty), Goal 2 (zero hunger), Goal 5 (gender), Goal 6 (clean water and sanitation), Goal 7 (affordable, reliable, sustainable and modern energy), Goal 8 (decent work and economic growth), Goal 9 (industry, innovation and infrastructure), Goal 11 (inclusive, safe, resilient and sustainable cities), Goal 12 (sustainable consumption and production patterns), and Goal 13 (climate action).

## **A. Tracking progress in the uptake of renewable energy sources**

**Description:** The Group of Experts will continue to monitor progress on the uptake of renewable energy in the region, following the baseline and key findings of the reports issued in 2015, 2017 and 2022. This work will continue in collaboration with key partners, including the Renewable Energy Policy Network for the 21st Century (REN21), the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), the Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP), the European Commission, the Global Bioenergy Partnership (GBEP) and the German Energy Agency (dena). The expected results will help to improve the understanding of renewable energy globally and contribute to existing global monitoring systems already in place by partners including the High-level Dialogue on Energy 2021, in particular through Technical Working Group 2 on Energy Transition, and with UN-Energy members. This Technical Working Group is intended to focus on transition towards more sustainable forms of energy, looking at priorities like climate change, economic development, social inclusion, energy security, health, job creation etc. together with fundamental technology changes and rapid changes in technology costs that are driving energy sector transitions of the ECE region in the near future. These activities will support strengthening local capacities of data gathering as well as creating a network of regional data partners.

### **Work to be undertaken:**

(a) Review the state of development and monitor the progress of renewable energy uptake in the region as well as the consideration of the perception of future renewable energy development by key stakeholders. This will include building on key findings from the Renewable Energy Status Report 2021 for selected countries and further investigating a selected number of key issues as well as contributing to existing global monitoring frameworks, in particular within the context of the High-level Dialogue on Energy 2021;

(b) Identify ways to strengthen national action plans regarding renewable energy, drawing on experience of best practices on framework conditions and instruments that help significantly increase the uptake of renewable energy in the region;

(c) Identify obstacles for the development of renewable energies in selected target countries via business dialogue fora and to identify concrete solutions for the reduction of barriers at the national and regional levels and exploit the existing untapped renewable energy potential, in cooperation with IRENA, dena and other international actors;

(d) Identify possible ways and best practices to address financing and efficient use of renewable energy, and in this regard the impact of subsidies on renewable energy as well as of carbon pricing options on renewable energy support.

### **Deliverables and Timeline:**

(a) A new edition of the REN21 ECE Renewable Energy Status Report (dependent on extrabudgetary funding), by December 2023;

(b) A report on the status of implementation of renewable energy action plans (dependent on extrabudgetary funding), by December 2023;

(c) Policy and business recommendations through the organization of or participation in workshops on selected local energy issues, mainly raised by dedicated

Renewable Energy Hard Talks, bringing together key stakeholders from the public and private sectors, by December 2022;

(d) A report on subsidies and their impact on financing renewable energy uptake in selected countries of the region (dependent on extrabudgetary funding), by December 2023.

## **B. Exchange of experiences, good practices, and multi-stakeholder dialogues on how to increase the uptake of renewable energy**

**Description:** The Group of Experts will continue to serve as a platform for exchanging experiences and good practices on renewable energy development among member States, relevant international organizations and other stakeholders on how to increase energy production from renewable sources as a means of sustainable development and climate change mitigation, in an integrated approach that considers cross-cutting and nexus issues. This work will be undertaken collaboratively with other organisations, such as IRENA, IEA, REN21, GBEP, UNDP, the other United Nations Regional Commissions and other relevant organizations, including dena, and multilateral development banks. A set of capacity development activities will be implemented to increase know-how on renewable energy among stakeholders from the public and private sectors in the region. This work is based on the findings of the status and market reports 2021. The Group of Experts will further contribute to future ECE initiatives in assessing the progress and prospects for sustainable energy within the region.

### **Work to be undertaken:**

(a) Organize a discussion within the Group of Experts for exchanging information on already developed renewable energy policies and measures across countries in the region, aiming to fight climate change, decarbonize economies and achieving the SDGs as well as the national renewable energy targets and to develop/ implement their renewable energy national action plans. This includes the consideration of existing gaps between current status and targets as well as of policy options to achieve sustainable energy;

(b) Assess market design adaptation for higher shares of renewable energy in the ECE region in close cooperation with the secretariat and other key international actors (dependent on extrabudgetary funding);

(c) Promote information sharing activities within workshops, seminars, roundtables; develop documentation/briefs etc. for exchange of experience on best practices and policies, such as in the context of the International Forum on Energy for Sustainable Development and the Committee on Sustainable Energy;

(d) Organize specific multi-stakeholder dialogues/Hard Talks, upon country request and fund availability, to use the results of the Renewable Energy Status Report for an open dialogue among stakeholders, including through inter-sectoral coordination and cooperation with relevant organizations (dependent on extrabudgetary funding);

(e) Strengthen cooperation between public and private sectors to promote suitable market conditions and build capacities for the identification, development and promotion of renewable energy investments, and matchmaking activities to support renewable energy investments (dependent on extrabudgetary funding).

### **Deliverables and Timeline:**

(a) Ad hoc workshop or discussion within the annual session of the Group of Experts and written contributions on adaptive and cross-cutting policy options, by December 2023;

(b) A webinar or discussion on adapting market design to high shares of variable renewable energy in selected countries in the ECE region (dependent on extrabudgetary funding for the assessment of the market design adaptation), by December 2022;

(c) Present information on policies, experiences and good practices in countries of the region during four workshops and seminars organized by relevant organizations (dependent on extrabudgetary funding for travel costs), by December 2023;

(d) Hard Talks and/or follow-up activities in ECE countries on a demand-driven basis with the participation of key stakeholders, enhancing cross-sectoral synergies and strengthening cooperation within the UN system and with other international actors (dependent on extrabudgetary funding), by December 2023;

(e) Promote capacity-building activities on renewable energy project development and disseminate relevant material and information on projects at workshop and/ or matchmaking event(s) among developers, investors and financial institutions. This material may include a possible guide on the integration of environmental aspects and the promotion of a renewable energy-water nexus approach in project development (dependent on extrabudgetary funding), by December 2023.

### **C. Cross-cutting cooperation to strengthen integration of renewable energy in future sustainable energy systems**

**Description:** The Group of Experts will continue to work on improving the integration of the various renewable energy technologies into present and future energy supply systems and different sectors, including electricity generation, heating and cooling, gas and liquid fuel distribution as well as autonomous energy supply systems. The Group of Experts will continue to work recognizing the importance of a circular economy and the sustainable use of natural resources in achieving the SDGs, supporting economic prosperity and resilience, addressing environmental pressures, mitigating climate change and building back better in response to the COVID-19 pandemic.

6. This activity is implemented in cooperation with other ECE bodies, with the Group of Experts leading or contributing to the work and in close cooperation with other relevant actors.

7. The Group of Experts will cooperate with the Expert Group on Resource Management to enhance the application of the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) to renewable energy resources to understand the renewable energy system's potential and benefits on different scales such as national, regional, global. (Co-leaders: Expert Group on Resource Management and Group of Experts on Renewable Energy).

8. The Group of Experts will cooperate with other Groups of Experts, notably with the Group of Experts on Gas and the Group of Experts on Cleaner Electricity Systems, in the implementation of activities related to renewable energy within the respective work plans, supporting possible synergies to enhance the uptake of renewable energy and to promote the development of green hydrogen and biomethane (Co-leaders: Group of Experts on Renewable Energy, Group of Experts on Gas, Group of Experts on Cleaner Electricity Systems, and Expert Group on Resource Management).

9. The Group of Experts will participate in the work of the Task Force on Digitalization in Energy of the Group of Experts on Energy Efficiency which aims to provide a clear and balanced view on digitalization to improve the efficiency of the overall energy system while ensuring its security and sustainability to policymakers and stakeholders.

10. The Group of Experts will assess opportunities for more sustainable and environmentally friendly renewable energy, including bioenergy and hydro, through inter-sectoral synergies (nexus), in cooperation with relevant activities of other ECE subprogrammes, notably with the Task Force on Water-Food-Energy-Ecosystem Nexus and the Team of Specialists on Wood Energy (Lead: Task Force on Water-Food-Energy-Ecosystem Nexus, the Team of Specialists on Wood Energy, and the Expert Group on Resource Management) as well as with the Global Bioenergy Partnership of FAO.

**Work to be undertaken:**

(a) Outreach activities on specifications for the application of UNFC to the various renewable energy technologies (bioenergy, solar, hydro, wind) (under the lead of the Expert Group on Resource Management);

(b) Identification of key existing documentation/literature for a possible database (dependent on extrabudgetary funding) on how to overcome key obstacles and identify standard opportunities for synergies on renewable energy, to be shared and discussed in close collaboration with the Group of Experts on Gas (Co-Leaders: Group of Experts on Renewable Energy and Group of Experts on Gas);

(c) Develop recommendations on inter-sectoral synergies to deploy renewable energy and support the relevant SDGs within an integrated nexus approach and future energy system (under the lead of the Task Force on Water-Food-Energy-Ecosystem Nexus and the Team of Specialists on Wood Energy);

(d) Contribute to explore the digitalization opportunities and challenges in renewable energy technologies in countries of the ECE region;

(e) Support the initiative to launch concrete mechanisms and measures for the effective development of bioenergy in ECE countries, in close cooperation with the Global Bioenergy Partnership of FAO;

(f) Promote the implementation of the Net Energy Metering mechanism and relevant regulations for the ECE region;

(g) Share experiences with interested ECE member countries on building the capacity of hydrogen energy in Ukraine, based on Draft Roadmap for production and use of hydrogen in Ukraine;

(h) Support in the implementation of the Guarantee of the Origin of electricity, the International Renewable Energy Certificate (I-REC), the Renewable Energy Certificate (REC) including electricity from renewable sources and produced in the process of high-efficiency cogeneration and renewable gases (biomethane, "green" hydrogen) to ECE countries on a demand-driven basis (dependent on extrabudgetary funding).

**Deliverables and Timeline:**

(a) Documentation and/or case studies that supports UNFC to be applied to renewable energy sources and/or promotion of the application of UNFC to renewable energy to specific renewable energy meetings or workshops, by December 2023;

(b) Dissemination of good practices and policies of renewable energies with the consideration of all kind of gases and/or green hydrogen/biomethane within future energy systems in countries of the region, by December 2023;

(c) Documentation on water-energy nexus challenges and possible guidelines for renewable energy development, including on large hydropower (dependent on extrabudgetary funding), by December 2023;

(d) Identification of one or two renewable energy experts to participate in the Task Force on Digitalization in Energy of the Group of Experts on Energy Efficiency, by December 2022;

(e) Dissemination of good practices and policies of bioenergy development in ECE countries (dependent on extrabudgetary funding), by December 2023;

(f) Case studies on the Net Energy Metering mechanism and relevant regulations implementation for the ECE region (dependent on extrabudgetary funding), by December 2022.