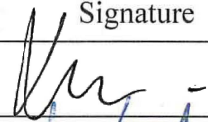
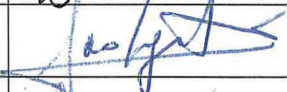
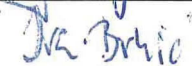


## MANAGEMENT RESPONSE

<b>Evaluation Title:</b>	Enhancing understanding of the implications and opportunities of moving to carbon neutrality in the UNECE region across the power and energy intensive industries by 2050		
<b>Period of Review:</b>	2020 - 2022		
<b>Date of Evaluation Report:</b>	20/07/2023		
Approved by	Chief, a.i., PMU Nicolas Dath-Baron	Date	Signature
		15/09/2023	
<b>Cleared by:</b>	Director of Division Dario Liguti	11/09/2023	
<b>Prepared by:</b>	Project Manager Iva Brkic	11/09/2023	

### Recommendation 1:

**Work on a subsequent phase of the Carbon Neutrality Project (CNP) to encourage UNECE member States to take the actions required to reduce GHG emissions in line with the Paris Agreement.** This could be done by:

- strengthening outreach to policymakers, the financial community, and end-users in addressing carbon neutral technology issues to unlock investments in the public and private sector (Para 40), which is the challenge for broader work of UNECE. There should be a focus on getting policymakers involved in the technology issues at a really early stage with Carbon Neutrality Project materials, and to ensure policymakers, the financial community and politicians get the legal framework in place before the private sector invests capital;
- focusing efforts on increased exposure to a very informative UNECE Carbon Neutrality Toolkit website to policymakers and technical experts to assist policymakers to be involved in the technology issues at a really early stage. This increased exposure to the Toolkit will provide policymakers and technical experts with sufficient knowledge and information to disseminate and reach end-users and politicians covering industrial, building and transport issues in the 56 UNECE countries;
- assisting policymakers and technical experts to empower industrial end-users (and eventually politicians) by getting them to use the UNECE Toolkit to adopt carbon neutral technologies as a means of business survival. This will ensure all technologies are well understood to improve stakeholder capacities to make a selection on what technologies are needed;
- continuing Task Force work on the Central Asian region to attain carbon neutrality in Central Asia with efforts to raise funds for additional zoom-ins for other UNECE member States;
- continuing Task Force work on rebuilding a carbon neutral energy system in Ukraine;
- seeking more funding for the expert community to do more in-depth analyses at the 3rd Almaty Energy Forum in 2023 and subsequent forums, as a follow-up to initial work presented at the 2nd Almaty Energy Forum in November 2022 (Para 26).

### **Management Response:**

UNECE accepts the recommendation.

### **Follow up actions and responsibilities:**

The UNECE Sustainable Energy Division will continue conducting awareness raising activities on the importance of low and zero-carbon technology interplay to attain carbon neutrality by 2050. The activities will focus on dissemination of Carbon Neutrality project findings tailored for the wider stakeholder community comprising policymakers and representatives from academia, industry and the finance sector. The project findings dissemination activities will be highlighted at the annual sessions of the Committee on Sustainable Energy, as well as at the annual meetings of its six subsidiary bodies (Group of Experts on Renewable Energy, Group of Experts on Gas, Group of Experts on Cleaner Electricity Systems, Group of Experts on Energy Efficiency, Group of Experts on Coal Mine Methane and Just Transition, and Expert Group on Resource Management).

The UNECE Sustainable Energy Division will explore how to apply the findings from the Carbon Neutrality project, with a particular focus on helping Ukraine rebuild its energy infrastructure under the carbon neutrality concept.

The UNECE Sustainable Energy Division will continue working with experts in Central Asia to develop a roadmap to carbon neutrality in Central Asia and, more specifically will seek funding for the subsequent stages of the carbon neutrality project in Central Asia, namely a zoom-in on energy connectivity in Central Asia.

Responsibility: Sustainable Energy Division (Iva Brkic, Economic Affairs Officer)

Timeline: 30 June 2024

### **Recommendation 2:**

**Use expertise under the leadership of the Committee on Sustainable Energy to drill down to be more specific in the context of further action and adjust energy models to include increases in energy demand (which is not included in the current energy models predicting energy demand).**

Despite the CNP preparing and adopting technology briefs and conducting discussions amongst experts on next steps, these discussions were deemed to be too general to advance the next steps in carbon neutrality development (Para 55). Current models only historically correlate energy use and GDP (which is going to change as per the example of 4 years of carbon emissions in EVs are brought forward before the EV is carbon neutral with 4 years of carbon emissions making the battery). The models produced by the CNP likely do not account for the energy demand increases (Para 47). With regards to the demand side:

- a deeper dive into more research and studies on building on recommendations from CNP findings on resilient energy systems can produce better assessments, making it more focused how the energy system processes works if extrabudgetary resources can be made available;
- if extrabudgetary resources are made available, western business models can be used for decarbonization of the hard-to-abate sectors using an industrial cluster approach that can be replicated in the eastern part of the UNECE region;
- extrabudgetary resources can also involve an assessment of decarbonization on the demand side and its integration with the electricity grid (especially with EVs potentially impacting the grid) to allow electrification of buildings and transport. This should cover decarbonization of 3 main sectors: industry, buildings and transport.

### **Management Response:**

UNECE accepts the recommendation.

### **Follow up actions and responsibilities:**

The UNECE Sustainable Energy Division will continue conducting awareness raising activities and disseminating project findings at various international events. Under the leadership of the Group of Experts on Energy Efficiency and its Task Force on Industrial Energy Efficiency, the UNECE Sustainable Energy Division will work with its stakeholder community to explore what business models can be used to decarbonize the hard-to-abate sectors, such as steel, cement and chemicals, in the UNECE region.

The UNECE Sustainable Energy Division, in cooperation with the Hydrogen Council, the World Energy Council, UNIDO and the Global Carbon Capture and Storage Institute, will explore the potential roles of hydrogen and carbon capture, use and storage for the decarbonization of hard-to-abate sectors.

Responsibility: Sustainable Energy Division (Iva Brkic, Economic Affairs Officer)

Timeline: 30 June 2024

### **Recommendation 3:**

**For subsequent phases of CNP, identify more women in the entire UNECE region for increased education and engagement in the energy sector that will lead to increased contributions by women to discussions on carbon neutrality.** While the energy sector in the UNECE region is dominated by men, actions placing a focus on women and other vulnerable groups should be taken to:

- support more education for women in the energy sector. This is absolutely necessary given the anticipated personnel shortages and increasing employment in green energy; and
- encourage all policymakers to develop carbon neutral energy transition policies that enable all vulnerable groups (i.e. women, children, elderly and disabled people) to benefit from energy systems that are carbon neutral to accelerate “affordable and clean energy for all” (SDG 7).

### **Management Response:**

UNECE accepts the recommendation.

### **Follow up actions and responsibilities:**

The UNECE Sustainable Energy Division will promote gender parity more strongly in the composition and events organized by the Committee on Sustainable Energy and its six subsidiary bodies (Group of Experts on Renewable Energy, Group of Experts on Gas, Group of Experts on Cleaner Electricity Systems, Group of Experts on Energy Efficiency, Group of Experts on Coal Mine Methane and Just Transition, and Expert Group on Resource Management).

The UNECE Sustainable Energy Division will organize activities and dialogues that encourage all policymakers to create carbon neutral energy transition policies that enable all vulnerable groups (i.e. women, children, elderly and disabled people) to benefit from energy systems.

Responsibility: Sustainable Energy Division (Iva Brkic, Economic Affairs Officer)

Timeline: 30 June 2024

