

TERMS OF REFERENCE

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

I. Purpose

The purpose of this evaluation is to assess the extent to which the Carbon Neutrality project (the project) succeeded in enhancing the understanding of the implications and opportunities of moving to carbon neutrality in the UNECE region across the power and energy intensive industries by 2050. The evaluation will assess the relevance of the project, as well as its effectiveness in enhancing the capacity of the ECE member States to attain carbon neutrality and achieve the energy related Sustainable Development Goals (SDGs) as well as other internationally agreed goals and targets, as appropriate. The evaluation will also address the efficiency and sustainability of the project, in order to learn how to maintain and possibly replicate lessons-learned in the activities of the subprogramme. The evaluation will finally look at the activities repurposed to address the impact of the COVID-19 crisis, and assess, to the extent possible, UNECE's response to COVID-19, as well as project's contributions to solving of the energy security crisis and proposed response to design and implement carbon neutral energy systems.

The evaluation should identify lessons learned from the implementation of the project and areas that need further attention and provide practical recommendations on how to improve the efficiency, effectiveness and sustainability of future work on similar topics. The results of the evaluation will support the improvement of the quality of the services provided by the subprogramme in future projects and activities on similar topics.

II. Scope of activities for evaluation

The evaluation will be guided by the objectives, indicators of achievement and means of verification established in the logical framework of the project documents. The evaluation will cover the full period of implementation from June 2020 to December 2022.

To make sure the evaluation is focused on specific impacts of the project, the evaluator will undertake interviews, collecting feedback from key project stakeholders, such as members of the Carbon Neutrality Task Force, the project Advisory Board and the Bureau of the Group of Experts on Cleaner Electricity Systems under whose auspices this project was implemented.

The universally recognized values and principles of human rights and gender equality need to be integrated into all stages of the evaluation and disability inclusion need to be mainstreamed throughout the evaluation process, in compliance among others with the United Nations Evaluation Group's norms and standards and the UN Disability Inclusion Strategy. Therefore, the evaluation will assess how the project activities contributed to gender equality and women's empowerment, the realization of human rights, with an emphasis on 'leaving no one behind', and whether it applied disability inclusion approaches, and it will make recommendations on how these considerations can be better addressed in future subprogramme activities, if needed.

III. Background

The project built on the analytical capabilities developed in the "[Pathways to Sustainable Energy](#)" project (completed on 31 October 2019), including the analytical model [MESSAGE by IIASA](#) that was used for

scenario planning to help policymakers identify technology and policy options to deliver on net-zero carbon societies by 2050.

In order to understand what technology and policy options are required to attain carbon neutrality in the UNECE region, the following activities were conducted:

- i) Refinement of data and assumptions of technology inputs: The objective was to reorientate the model towards net-zero carbon neutral societies and refine and solidify data and input assumptions. This approach allowed a better understanding of technology deployment curves and to risk-adjust the models accordingly and per subregion.
- ii) Understanding the role of selected technologies and innovation towards carbon neutrality: This part sought to analyse the potential of low-, zero- and negative carbon technologies across the region to identify and support lowest cost opportunities across the power and energy intensive sectors.
- iii) Collaboration across sectors towards carbon neutrality: The project proposed to collaborate across technologies and with the financial sector for a more meaningful and directed impact so that policy makers can develop a clear vision of how to achieve climate neutrality by 2050.

The project team cooperates and coordinates the project activities with other United Nations agencies, international governmental and non-governmental organizations active in the fields of public participation, human rights and the environment, as to promote synergy and avoid duplication.

IV. Issues

The evaluation will answer the following questions:

Relevance

1. Was the project design and implementation appropriate for meeting the project's objective?
2. To what extent did the project respond to the priorities and needs of UNECE member States? How relevant were they to the target groups' needs and priorities?
3. What is the relevance of the project for the broader work of UNECE?
4. Did UNECE advocate for gender equality in this area of work, as well as the realization of human rights, with an emphasis on "leaving no one behind"?

Effectiveness

5. To what extent were the project objectives and expected accomplishments achieved?
6. To what extent were the outputs consistent with and relevant to the overall project objectives and expected accomplishments?
7. How did the project strengthen the national capacity of member States to develop, implement and track national sustainable energy policies aligned with international agreements?
8. What were the challenges/obstacles (if any) to achieving the expected results?
9. What (if anything) has prevented to achieve the desired results?
10. How effective was the support of the secretariat in servicing the activities under project implementation?

Efficiency

11. Were the resources sufficient for achieving the results?
12. Were the results achieved on time and were all activities organized efficiently?
13. To what extent were the resources used economically?
14. How could the use of resources be improved? Would you propose any alternatives to achieve the same results? If yes, which ones?
15. Were the activities implemented in the most efficient way compared to alternatives? In particular, how do the costs and use of resources compare with other similar projects (within UNECE, other regional commissions, other UN agencies, or other organizations and initiatives)?
16. How was the difference between planned and actual expenditure justified (if any)?

Sustainability

17. To what extent will the benefits of the project continue after its completion, without overburdening

- recipient countries and stakeholders?
18. How is the stakeholders' engagement likely to continue, be scaled up, replicated or institutionalized?
 19. To what extent do the partners and beneficiaries 'own' the outcomes of the work?
 20. How has the project built-in resilience to future risks?
 21. What are the major factors which influence the achievement or non-achievement of sustainability of the project?
 22. To what extent are the objectives of the project still valid? How can the project be replicated in the UNECE region? Or in other regions?

V. Methodology

The evaluation will adopt a theory-driven, utilization-focused and gender and human rights responsive approach. The evaluator is required to use a mixed-method approach, including qualitative as well as quantitative data gathering and analysis as the basis for a triangulation exercise of all available data to draw conclusions and findings.

The evaluation will be conducted on the basis of:

1. A desk review of all relevant documents over the period including:
 - All relevant documents including materials developed in support of the activities (agendas, plans, participant lists, background documents, final reports and publications)
 - Reports and briefs prepared under the project implementation
 - Proposed programme budgets covering the evaluation period
2. A tailored questionnaire will be developed by the evaluator in consultation with the project manager to assess the views of stakeholders: Parties, experts, staff from ECE, other regional commissions and relevant counterparts in the United Nations System and other international organizations.
3. The questionnaire will be followed by interviews of selected stakeholders (methodology to be determined by the evaluator in consultation with ECE programme management unit and the project manager). These will be carried out via phone or other electronic means of communication. Results of the survey will be disaggregated by gender.

The report will summarize the findings, conclusions and recommendations of the evaluation. An executive summary (max. 2 pages) will sum up the methodology of the evaluation, key findings, conclusions and recommendations.

All material needed for the evaluation, will be provided to the consultant. In addition to the documents mentioned above in 1), the project manager will provide the list of persons to be interviewed by telephone. ECE will provide support and further explanation to the evaluator as needed.

The evaluation will be conducted in accordance with the [ECE Evaluation Policy](#). A gender-responsive methodology, methods and tools, and data techniques will be selected. The evaluation findings, conclusions and recommendations will reflect a gender analysis.

VI. Evaluation schedule¹

2 August 2022	ToR finalized
15 August 2022	Evaluator selected
31 August 2022	Contract signed. Evaluator starts the desk review
19 September 2022	Evaluator submits inception report including survey design
3 October 2022	Launch of data gathering

¹ Final timetable to be agreed following engagement of the evaluator

19 October 2022	Stakeholder interviews start
7 November 2022	Evaluator submits draft report
30 November 2022	Evaluator submits final report

VII. Resources

The resources available for this evaluation are USD 12,000 (all inclusive). Payment will be made upon satisfactory delivery of work.

The Programme Management Unit (PMU) will manage the evaluation and will be involved in the following steps: Selection of the evaluator; Preparation and clearance of the Terms of Reference; Provision of guidance to the Secretary, Aarhus Convention and to the evaluator as needed on the evaluation design and methodology; Clearance of the final report after quality assurance of the draft report.

The Project Manager, Sustainable Energy Division, in consultation with the Division Director, will be involved in the following steps: Provide all documentation needed for desk review, contact details, support and guidance to the evaluation consultant as needed throughout the timeline of the evaluation; Advise the evaluator on the recipients for the questionnaire and for follow-up interviews; Process and manage the consultancy contract of the evaluator, along the key milestones agreed with PMU.

VIII. Intended use / Next steps

The evaluation will be consistent with the UNECE Evaluation Policy. The results of the evaluation will be used in the planning and implementation of future activities of the Sustainable Energy subprogramme in support of the realization of the 2030 Agenda for Sustainable Development and Paris agreement.

Following the issuance of the final report, the Project Manager, Sustainable Energy Division, in consultation with the Division Director, will develop a management response for addressing the recommendations made by the evaluator. The final evaluation report, the management response and the progress on implementation of recommendations will be publicly available on the UNECE website.

IX. Criteria for evaluation

The evaluator should have:

- An advanced university degree or equivalent background in relevant disciplines, with specialized training in areas such as evaluation, project management and social statistics.
- Specialized training in areas such as evaluation, project management, social statistics, advanced statistical research and analysis.
- Knowledge of and experience in working with intergovernmental processes, energy policy, environmental policy, water and energy nexus, and/or sustainable energy concepts.
- Relevant professional experience in design and management of evaluation processes with multiple stakeholders, survey design and implementation, project planning, monitoring and management, gender mainstreaming and human-rights due diligence.
- Demonstrated methodological knowledge of evaluations, including quantitative and qualitative data collection and analysis for end-of-cycle project evaluations.
- Fluency in written and spoken English. Knowledge of another language may be an advantage.

Evaluators should declare any conflict of interest to ECE before embarking on an evaluation project, and at any point where such conflict occurs.