

ECONOMIC COMMISSION FOR EUROPE

EXECUTIVE COMMITTEE

128th meeting

Geneva, 15 May 2023

Item 6 of the provisional agenda

Informal Document 2023/25

Extrabudgetary project

A pathway to hydrogen classification in the UNECE region

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
TECHNICAL COOPERATION PROJECT FORM

Project title: A pathway to hydrogen classification in the UNECE region		
Expected timing/ duration: June 2023 – June 2024		
Objective and brief summary of the project: The objective of the project is to improve the capacity of UNECE member States to further develop a regional hydrogen ecosystem. The project specifically assesses current initiatives on hydrogen classification and examines if and how the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) could be applied to hydrogen projects. Hydrogen as an energy carrier is necessary for deep decarbonization of hard-to-abate sectors, such as long-haul transport, manufacturing of steel, cement or chemicals. Enabling a hydrogen ecosystem is required to build resilient energy systems that provide affordable, reliable, sustainable, and modern energy for all, and help reduce the carbon footprint of the energy sector across the UNECE region. Currently there is no internationally-accepted hydrogen classification that deals with its sustainability. It is thus important to define criteria for sustainable hydrogen that strike a balance between the emissions associated with its production and the sufficient flexibility needed to scale-up a nascent industry. A hydrogen classification methodology is critical for strengthening the case for hydrogen as a reliable, renewable, affordable, and low-carbon energy carrier, that is necessary for the attainment of carbon neutrality and building of resilient energy systems. The objective of the project will be achieved by implementing the following activities: A1.1. Conduct an assessment of existing initiatives on classifications and specifications for hydrogen; A1.2. Develop a list of criteria on sustainable hydrogen production sources to be considered for low- and zero-carbon hydrogen (integrating CO ₂ emissions thresholds as a criterion); A1.3. Conduct an analysis on the applicability of UNFC and UNRMS to hydrogen projects; A1.4. Develop a methodology for classification of hydrogen that addresses the full life cycle of the hydrogen value chain; A2.1. Organize one workshop on hydrogen to discuss development of a hydrogen classification.		
Link to the SDG targets: SDG 7 (targets 7.1, 7.2, 7.3, 7.A, 7.B), SDG 9 (9.1, 9.4), SDG 11 (11.1, 11.6, 11.B), SDG 12 (12.1, 12.2 12c), SDG 13 (13.1, 13.2, 13.3, 13.A, 13.B), SDG 17 (17.3, 17.7, 17.9, 17.14, 17.15, 17.16, 17.17)		
Expected results of the project: EA1. Improved understanding of UNECE member States on the methodology for development of a hydrogen classification system; EA2. Strengthened national capacity of UNECE member States to apply UNFC and UNRMS to classify hydrogen.		
Target group and beneficiaries of the project: Beneficiary countries: UNECE member States. The target groups are policymakers, regulators, industry actors, non-governmental organizations, academia and other experts dealing with the development and deployment of a hydrogen energy industry.		
Justification of project and its relationship to the programme of work: The project directly contributes to the objective of Subprogramme 5 “Sustainable Energy” “to ensure access to affordable and clean energy for all and reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region” of the UNECE Programme budget for 2023.		
Estimated UN regular budget resources (work months of RB staff/level of Staff): 0.5 months of P4		
Estimated extra budgetary resources:		
Donor: Russian Federation	Amount (USD): 100,000	
Project Manager: Charlotte Griffiths 12.04.2023	Section/Division: Resources Management Section, Sustainable Energy Division	
Cleared by Programme Management Unit: Nicolas Dath-Baron 12.04.2023	Approved by EXCOM¹	15.05.2023

¹ See paragraph 31 (a) of Commission decision A (65).

Annex
Results-based budget for the extrabudgetary project

Expected accomplishments	Planned activities	Estimated costs (US\$)
EA1. Improved understanding of UNECE member States on the methodology for development of a hydrogen classification system	A1.1. Conduct an assessment of existing initiatives on classifications and specifications for hydrogen P3 x 0.5month x \$13,500 per month 1 international consultant to conduct an analysis of existing initiatives x 1 month x \$5,000 per month	11,750 6,750 5,000
	A1.2. Develop a list of criteria on sustainable hydrogen production sources to be considered for low- and zero-carbon hydrogen (integrating CO2 emissions thresholds as a criterion). P3 x 0.5 month x \$13,500 per month 1 international consultant to develop a criteria x 2 months x \$5,000 per month	16,750 6,750 10,000
	A1.3. Conduct an analysis on the applicability of UNFC and UNRMS to hydrogen projects P3 x 0.5 month x \$13,500 per month 1 international consultant to conduct an analysis x 1 month x \$5,000 per month	11,750 6,750 5,000
	A1.4. Develop a methodology for classification of hydrogen that addresses the full life cycle of the hydrogen value chain P3 x 0.5 month x \$13,500 per month 1 international consultant to develop a methodology x 2 months x \$5,000 per month	16,750 6,750 10,000
	EA2. Strengthened national capacity of UNECE member States to apply UNFC and UNRMS to classify hydrogen	A2.1. Organize one workshop on hydrogen to discuss development of a hydrogen classification P3 x 1month x \$13,500 per month Travel of 1 staff x 1 mission x \$1,500 Travel of consultant x1 mission x \$1,500 per trip Travel of experts x 9 experts x 1 mission x \$1,500 per trip Contractual services (individual contractors to help with web design and IT, interpretation, materials)
Budget summary		88,500
13% of Programme Support Costs (rounded)		11,500
Budget (rounded)		100,000