

**UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE**  
**REGULAR PROGRAMME OF TECHNICAL COOPERATION**

**Capacity Building/ Field Project/Activity title:**

Improving capacity of the Government of Ukraine to develop infrastructure for production and use of hydrogen to support green post-covid-19 recovery

**Expected timing and venue:**

15 August – 31 December 2020

**Objective and brief summary of the project/ activity:**

Objective: Improved capacity of the Government of Ukraine to develop infrastructure to produce and use hydrogen to support its green post-covid-19 recovery. The objective of the project will be achieved by implementing the following activities:

Activity 1.1: Development of a draft Roadmap for production and use of hydrogen

Activity 1.2: Capacity-building workshop on development of hydrogen infrastructure<sup>1</sup>

Activity 2.1: Scoping report for the Strategic Environmental Assessment (SEA) procedure of the Roadmap

Hydrogen is a renewable and clean source of energy that supports circular economy. Ukraine is experiencing an economic downturn as a consequence of the Covid-19 pandemic. Development of infrastructure to produce and use hydrogen in Ukraine will facilitate its economic recovery in an environmentally friendly manner, increase its energy security and efficiency, improve the economic climate and create new employment opportunities. As indicated in the [UN Framework for the Immediate Socio-Economic Response to COVID-19](#), “the performance and resilience of socio-economic systems depend on the state of the natural environment and ecosystems. As the environmental commons ignore frontiers and are intrinsically linked, managing them sustainably requires concerted and integrated collaborative action and policy measures to promote sustainable consumption and production, “just transitions”, deep decarbonization and build environmental protection into key economic areas (such as agriculture, transport, energy, buildings and construction, and telecommunication).” The proposed activities are fully in line with these goals.

In terms of the use of hydrogen, the specific focus will be on its use in road transport, particularly urban transport, that will reduce emission of air pollutants and CO<sub>2</sub>. To achieve these results, improving the capacity of the Government of Ukraine is of paramount importance. In the framework of the project, UNECE will assist the country in developing a draft Roadmap for production and use of hydrogen and in preparing a scoping report, including facilitating a scoping consultation with stakeholders (including the public) under the Strategic Environmental Assessment procedure of the Roadmap in line with the UNECE Protocol on SEA. The scoping report will determine the relevant information to be considered in the SEA procedure and provisionally cover the following topics/issues with regard to the draft Roadmap: human health, climate change, resilience of infrastructure to produce and use hydrogen to the impacts of more extreme weather, ambient air, soil, water resources, biodiversity, livelihood, waste management; interlinkages with other plans/programmes; potential transboundary aspects.

In the process of implementing Activities 1.1 and 2.1, consultants will engage in consultations with the Government of Ukraine (in particular, Ministry of Energy; State Agency on Energy Efficiency and Energy Saving (SAEE); Ministry of Environmental Protection and Natural Resources; Ministry of Infrastructure; Ministry of Economic Development, Trade and Agriculture; Ministry for Communities and Territories Development; State Commission on Mineral Resources; and Ministry of Health), business community (energy sector in particular), municipalities, financial institutions, civil society, academia, and other stakeholders. After the draft Roadmap and the scoping report are developed, UNECE, jointly with UNDP Ukraine and the Government of Ukraine, will organize a capacity-building workshop on development of hydrogen infrastructure and application of SEA in the energy sector (in-person in Kyiv or on-line depending on the situation). The UN Country Team in Ukraine is informed of this project, and UNDP Office in Ukraine expressed its willingness and interest in cooperating with UNECE in the technical assistance to Ukraine on this topic.

Regional Advisers on Energy, Environment, and Transport will provide substantive support to colleagues in their Divisions responsible for the respective areas of work in developing Terms of Reference for consultants, overseeing the consultants’ work, ensuring the quality of their deliverables, coordination with relevant Ukrainian authorities, and ensuring overall quality of the project implementation.

<sup>1</sup> This activity will also contribute to Expected Accomplishment EA2.

## **How the proposed activity will respond to the impact of covid-19**

Post-COVID-19 recovery must take into account economic, social and environmental concerns. For countries of Eastern Europe, and Ukraine specifically placing the economy on a path to sustainable development after the crisis is of vital importance. Introducing hydrogen into the energy system of Ukraine will promote green economic recovery post-COVID-19 crisis, promote transition to circular economy, mitigate climate change, and create new employment opportunities. Development of infrastructure to produce and use hydrogen would lead to the reduction of CO2 emissions, reduction of emissions of air pollutants especially in urban areas, technological innovations, increasing export potential, and creation of new jobs in the energy sector with multiplying effect for the economy at large. As with any relatively new and promising technology, assessment of its environmental impacts is important. SEA ensures that environmental and health considerations are taken into account in the planning of economic activities, including through obligatory consultation of environmental and health authorities, and the public, and will contribute to building a healthier, more sustainable and more resilient society, including against future outbreaks of viruses.

### **Relation to the Sustainable Development Goals:**

*The activity directly contributes to achieving the followings SDGs and targets:*

SDG3: Ensure healthy lives and promote well-being for all at all ages

Targets: 3.6 By 2020, half the number of global death and injuries from road traffic accidents

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

SDG7: Ensure access to affordable, reliable, sustainable and modern energy

Targets: 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.A By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

SDG8: Promote inclusive and sustainable economic growth, employment and decent work for all

Targets: 8.1 Sustain per capita economic growth in accordance with national circumstances

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation

SDG9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Target 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Target 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

SDG 12: Ensure sustainable consumption and production patterns

Target 12.2 By 2030, achieve the sustainable management and efficient use of natural resources

SDG 13: Take urgent action to combat climate change and its impacts

Target 13.2 Integrate climate change measures into national policies, strategies and planning

SDG 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

Target 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

**Expected results of the project/ activity:**

*Please list expected accomplishments of the project/activity here*

EA1. Improving knowledge and skills of Government officials and experts in Ukraine to develop infrastructure for production and use of hydrogen

EA2. Improving knowledge and skills of Government officials and experts in Ukraine to conduct Strategic Environmental Assessment in the energy and transport sectors

**Cooperation with other UNECE Subprogrammes and contribution to the UNECE nexuses:**

This is a cross-sectoral activity of the UNECE Sustainable energy, Environment, and Transport Subprogrammes, which contributes to the Sustainable use of natural resources nexus. The hydrogen roadmap initiative will be aligned with the integrated resource management perspective. It provides a deeper understanding of a set of complex interactions and feedback loops affecting the natural resource base, especially supply and demand of energy, materials, water, innovation and megatrends, risks and opportunities, and social, environmental and political factors.

**Target group and beneficiaries of the project/ activity:**

*Target group:* Ministry of Energy; State Agency on Energy Efficiency and Energy Saving; Ministry of Environmental Protection and Natural Resources; Ministry of Health; Ministry of Infrastructure; Ministry of Economic Development, Trade and Agriculture; Ministry for Communities and Territories Development; State Commission on Mineral Resources; energy sector companies; municipalities; transport companies, in particular, in public transport; relevant practitioners/experts on SEA; and NGOs, in particular, those with an interest in the area of clean energy, safe and clean transport, and environmental assessment.

*Beneficiaries:* Primary beneficiary is Ukraine. It will serve as a pilot country. Outcomes of this project will benefit other UNECE member States, including RPTC-eligible countries.

**Confirmation of demand from the Government (RPTC eligible countries):**

Letter of request for technical assistance from the State Agency on Energy Efficiency and Energy Saving (SAEE) (attached).

**Justification of project/ activity and its relationship to the programme of work:**

*Quote relevant objective of the subprogramme in the approved programme budget for 2020*  
[https://undocs.org/a/74/6\(Sect.23\)](https://undocs.org/a/74/6(Sect.23))

For Sustainable energy Subprogramme, the objective is 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.

For Environment Subprogramme, the objective is to improve environmental governance and performance throughout the ECE region for safeguarding the environment and human health.

For Transport Subprogramme, the objective is to improve sustainable inland transport by making it safer, cleaner, more efficient and more affordable, for both freight transport and personal mobility.

**Estimated budget:**

*Please ensure that the below amount matches the total estimated costs in the annex*

USD 62,000

**Project Manager:**

Name Oleg Dziubinski

Date: 22 July 2020

**Section/Division:**

SED

**Annex**  
**Budget for the project/ activity**

<b>Expected accomplishments</b>	<b>Planned activities/ cost items</b>	<b>Estimated costs (US\$)</b>
EA1. Improving knowledge and skills of Government officials and experts in Ukraine to develop infrastructure for production and use of hydrogen	A1.1. Development of a draft Roadmap for production and use of hydrogen	42,000
	1 consultant (lead) x 4 months x \$6,000 per month	24,000
	1 consultant (on transport) x 3 months x \$5,000 per month	15,000
	A1.2. Capacity-building workshop on development of hydrogen infrastructure	1,500
	Travel of 1 consultant at \$1,500	1,500
	Travel of 1 staff at \$1,500	1,500
EA2. Improving knowledge and skills of Government officials and experts in Ukraine to conduct Strategic Environmental Assessment in the energy and transport sectors	A2.1 Scoping report for the Strategic Environmental Assessment (SEA) procedure of the Roadmap	20,000
	1 consultant x 4 months x \$5,000 per month	20,000
<b>Total</b>		<b>62,000</b> <b>60,000 as approved;</b> <b>2,000 (tbc by PMU at the later stage)</b>