

**ECONOMIC COMMISSION FOR EUROPE**

**EXECUTIVE COMMITTEE**

Remote informal  
meeting of members  
of the Executive Committee  
Geneva, 20 May 2020

Item 12

Informal Document No. **2020/29**

**Extrabudgetary project**

**Improving capacities of UNECE member States  
to decarbonize the transport sector by increasing the use of natural gas as a motor fuel**

**UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE  
TECHNICAL COOPERATION PROJECT**

<b>Project title:</b> Improving capacities of UNECE member States to decarbonize the transport sector by increasing the use of natural gas as a motor fuel						
<b>Expected timing/duration:</b> June 2020 – May 2022						
<p><b>Objective and brief summary of the project:</b> The objective is to improve capacities of UNECE member States to decarbonize their transport sectors by increasing the use of natural gas. Compressed natural gas (CNG) and liquefied natural gas (LNG) offer significant environmental, economic and social advantages that make them a serious alternative to both well-entrenched carbon-intensive fuels such as petrol and diesel and the emerging fuelling options such as electricity and hydrogen. In most UNECE member States CNG and LNG currently command modest shares of the transportation fuels market. Despite clear advantages under certain conditions, gas in transport still faces steep regulatory, legal, economic, technical and public perception barriers that need to be better understood and overcome. The project will develop and disseminate recommendations/policy guidelines that, when fully implemented, would effectively increase the share of natural gas in road transportation and hence reduce the carbon footprint of this critical sector. The proposed recommendations could be a step towards decarbonization of transport as UNECE member States confront the combined challenges of climate change, worsening air quality and the global economic downturn. The project will build a case for NG vehicles through a life cycle analysis and identify key drivers for and barriers to developing refuelling infrastructure for CNG and LNG, building upon UNECE's previous work: the 2017 report on removing barriers to the use of natural gas as maritime transportation fuel, and the 2018 case study from Spain on LNG truck-loading. The objectives of the project will be achieved through the following activities:</p> <p>A1.1. Assessing the state of development of CNG and LNG refuelling and storage infrastructure in target UNECE countries;</p> <p>A1.2. Identifying and developing case studies with effective regulatory, legal, economic, technical, and public perception promotional activities as well as barriers to increasing the share on CNG/LNG vehicles in the light- and heavy-duty road fleets;</p> <p>A1.3. Conducting a life cycle analysis of competing fuelling options (diesel, natural gas, electricity, hydrogen) in target UNECE countries evaluating total energy use, fuel economy, energy efficiency and greenhouse gas emissions;</p> <p>A1.4. Conducting comparative analysis of safety requirements for refuelling stations as one of the most serious barriers to market development;</p> <p>A1.5. Conducting research on introducing natural gas as a motor fuel;</p> <p>A1.6. Developing collection of case studies (and translating them into Russian) on popularization of using natural gas for vehicles, such as advertising, video, films, etc.;</p> <p>A2.1. Developing recommendations/policy guidelines on removing regulatory, legal, economic, technical and public perception measures aimed at promoting the use of gas in transportation and removing relevant barriers;</p> <p>A2.2. Developing up to 4 national case studies on CNG/LNG refuelling infrastructure and/or removing other barriers to the use of CNG/LNG in transportation;</p> <p>A3.1. Organizing 2 capacity-building workshops to disseminate key recommendations and support peer-to-peer learning and adoption of good practices;</p> <p>A3.2. Participating in two other meetings to present and promote the results of the project and raise awareness of the benefits of natural gas in transportation.</p>						
<p><b>Expected results of the project:</b></p> <p>EA1. Improved understanding of the UNECE member States on the benefits of natural gas in transportation as a viable low-carbon alternative to incumbent fuels (petrol and diesel) and emerging technologies (electricity, hydrogen);</p> <p>EA2. Improved national capacities for developing gas infrastructure in the context of sustainable energy (accessible, affordable, clean);</p> <p>EA3. Improved awareness of the role of CNG and LNG in transportation in selected countries and worldwide</p>						
<p><b>Target group and beneficiaries of the project:</b></p> <p>Beneficiary countries are all UNECE member States and in particular Armenia, Azerbaijan, Belarus, Bulgaria, Bosnia and Herzegovina, Kazakhstan, Kyrgyzstan, Moldova, North Macedonia, Romania, Serbia, Tajikistan, Turkey, Turkmenistan and Uzbekistan. The target group is policy-makers, regulators, gas industry value chain actors, non-governmental organizations, academia and other professionals dealing with the infrastructure for use of CNG and LNG in road transportation.</p>						
<p><b>Justification of project and its relationship to the programme of work:</b></p> <p>The project is directly linked to the objective of the 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 2020. The project will be implemented in close collaboration with the Subprogramme "Sustainable Transport" through its work on UN Regulation 110 (motor vehicles using CNG and/or LNG in their propulsion system). The Group of Experts on Gas is mandated by the UNECE Committee on Sustainable Energy (CSE) to provide a forum for multi-stakeholder dialogue on promoting the sustainable and clean production, distribution, and consumption of gas in the ECE region and to help ECE member States deliver on key political commitments, such as the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change. "Use of gas in transportation—challenges and opportunities" is one of the activities of the Group's work plan for 2020-21, approved by the CSE in September 2019, (ECE/ENERGY/2019/10).</p>						
<p><b>Estimated UN regular budget resources (work months of RB staff/level):</b></p> <p>2 months of P4/ RB</p>						
<p><b>Estimated extra budgetary resources:</b></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: center;">Donor</th> <th style="text-align: center;">Amount (US\$)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">The Russian Federation</td> <td style="text-align: center;">199,750</td> </tr> </tbody> </table>			Donor	Amount (US\$)	The Russian Federation	199,750
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<p><b>Project Manager:</b> Branko Milicevic  04.05.2020</p>	<p><b>Section/Division:</b> Energy Industry Section/Sustainable Energy Division</p>					
<p><b>Cleared by Programme Management Unit:</b> Nicolas Dath-Baron <b>Officer-in-charge</b>  04.05.2020</p>	<p><b>Approved by EXCOM:</b></p>	<p>21.05.2020</p>				

**Annex**  
**Results-based budget for the extra-budgetary project**

Expected accomplishments	Planned activities	Estimated costs (US\$)
EA1. Improved understanding of UNECE member States on the benefits of natural gas in transportation, as a viable low-carbon alternative to traditional fuels (petrol and diesel) and emerging technologies (electricity, hydrogen)	A1.1. Assessing the state of development of CNG and LNG refuelling and storage infrastructure in target UNECE countries P2 x 1-month x \$10,000 per month 1 consultant to develop assessment report x ½ month x \$8,000 per month Contractual services (individual contractors to help with implementation of all activities, including web design and IT)	20,000 10,000 4,000 6,000
	A1.2. Identifying and developing case studies with effective regulatory, legal, economic, technical, and public perception promotional activities as well as barriers to increasing the share on CNG/LNG vehicles in the light- and heavy-duty road fleets P2 x 1-month x \$10,000 per month 1 consultant to develop assessment report x ½ month x \$8,000 per month	14,000 10,000 4,000
	A1.3. Conducting a life cycle analysis of competing fuelling options (diesel, natural gas, electricity, hydrogen) in target UNECE countries evaluating total energy use, fuel economy, energy efficiency and greenhouse gas emissions P2 x 1-month x \$10,000 per month 1 consultant to conduct develop assessment report x ½ month x \$8,000 per month	14,000 10,000 4,000
	A1.4. Conducting comparative analysis of safety requirements for refuelling stations as one of the most serious barriers to market development P2 x ½ month x \$10,000 per month 1 consultant to develop assessment report x ½ month x \$8,000 per month	9,000 5,000 4,000
	A1.5. Conducting research on introducing natural gas as a motor fuel P2 x ½ month x \$10,000 per month 1 consultant to develop assessment report x ½ month x \$8,000 per month	9,000 5,000 4,000
	A1.6. Developing collection of case studies (and translating them into Russian) on popularization of using natural gas for vehicles Contractual services (individual contractors to provide support for activities, including preparing case studies for publication)	14,000
	EA2. Improved national capacities for developing gas infrastructure in the context of sustainable energy	A2.1. Developing recommendations/policy guidelines on removing regulatory, legal, economic, technical and public perception measures aimed at promoting the use of gas in transportation and removing relevant barriers P2 x 1-month x \$10,000 per month 1 consultant to draft policy guidance x ½ month x 8,000 per month
A2.2. Developing up to 4 (four) national case studies on CNG/LNG refuelling infrastructure and/or removing other barriers to the use of CNG/LNG in transportation P2 x 1-month x \$10,000 per month 1 consultant to develop case studies x ½ month x \$8,000 per month		14,000 10,000 4,000
EA3. Improved awareness of the role of CNG and LNG in transportation in selected countries and worldwide	A.3.1. Organizing 2 (two) capacity-building workshops to disseminate key recommendations and support peer-to-peer learning and adoption of good practices Travel of meeting participants x 30 x 1,500 per trip Travel of staff x 6 trips x 1,500 per trip Travel of consultant x 2 trips x 1,500 per trip 1 consultant to present at workshops x ½ month x \$8,000 per month	61,000 45,000 9,000 3,000 4,000
	A.3.2. Participating in two other meetings to present and promote the results of the project and raise awareness of the benefits of natural gas in transportation Travel of consultant x 1 trips x 1,500 per trip Travel of staff x 2 trips x 1,500 per trip Operating and other direct costs, including IT	6,000 1,500 3,000 1,500
Budget summary		175,000
13% of Programme Support Costs (rounded)		22,750
1% Coordination levy		2,000
<b>Total</b>		<b>199,750</b>