

Improving Capacities of the UNECE Member States to Decarbonize the Transport Sector by Increasing the Use of Natural Gas as a Motor Fuel

The two-year project, funded by the Russian Federation, covers 14 countries.



It is based on the premise that natural gas—with its environmental, economic, availability and logistic advantages — is a serious alternative to petrol and diesel because it is the only primary fuel that is

technically and economically viable in any mode of transportation: on-road vehicles, ships, locomotives.

Switching to compressed (CNG) or liquefied natural gas (LNG) away from petrol and diesel is an effective way to reduce pollution from road transport. CNG and LNG may represent an ideal bridge to more sustainable and decarbonised mobility of the future.

In a short term, the project will improve understanding of the UNECE member States of benefits of natural gas in transportation as a low-carbon option.

In a longer-term, the project will contribute to reducing pollution from road transport thus contributing to improving urban air quality in large cities in the region.

Project activities:

- Assessment of the state of development of CNG and LNG refueling and storage infrastructure in target UNECE countries.
- Case studies with effective regulatory, legal, economic, technical, and public perception promotional activities to increasing the share on CNG/LNG vehicles in the light- and heavy-duty road fleets.
- Life cycle analysis of competing fueling options (diesel, natural gas, electricity, hydrogen) in target UNECE countries evaluating total energy use, fuel economy, energy efficiency and greenhouse gas emissions.
- Comparative analysis of safety requirements for refueling stations as one of the most serious barriers to market development.
- Public opinion research on introducing natural gas as a motor fuel.
- Collection of case studies on popularization of using natural gas for vehicles, such as advertising, video, films.
- Recommendations on removing regulatory, legal, economic, technical, and public perception measures aimed at promoting the use of gas in transportation and removing relevant barriers.

UNECE prepared the **analytical report** that focuses on the natural gas vehicles (NGV) as an effective alternative for the transport transition. It describes the state-of-the-art of the NGV markets and its perspectives in the project countries.

The countries differ substantially in terms of economic development, transport market shape, energy, and transport policy.

There is a different state of the market development in the countries:

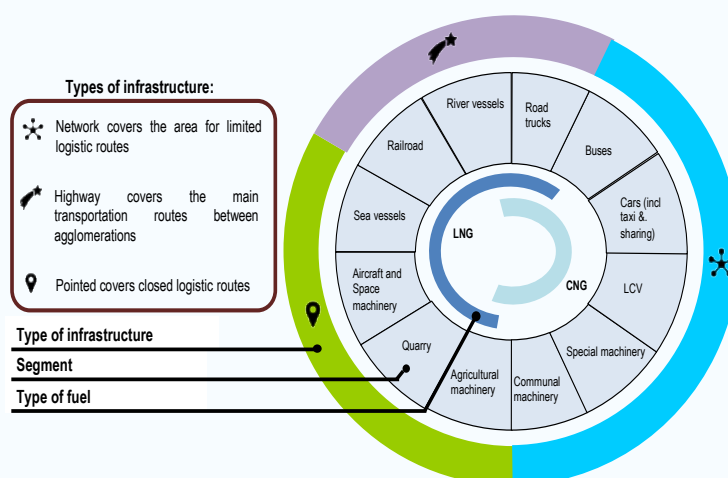
- Initial stage of the NGV market → Azerbaijan, Bosnia and Herzegovina, Kyrgyzstan, North Macedonia, Romania, Turkmenistan,
- Emerging NGV markets → Belarus, Bulgaria, Kazakhstan, Moldova, Serbia, Tajikistan,
- Mature NGV markets → Armenia and Uzbekistan.

To disseminate the results of report, its key recommendations as well as support the peer-to-peer learning and adoption of good practices, the UNECE will organize a series of **capacity-building workshops and meetings**.

Format of workshops: online, hybrid or in-person.

Subregional events: workshops for South-Eastern Europe; Caucasus and Central Asia.

The programme will include opening, presentation of report findings and country-specific recommendations, case studies and best practices.



Main recommendations for regulatory authorities:

- To make a complex analysis of transport and energy sectors and specify the fuel potential of every segment of transport sector.
- To understand the perspectives of power mix in the long run.
- To develop a comprehensive program of NGV market development with an infrastructure layout based on potential demand.
- To initiate simplification of technical regulation for filling stations.
- To develop a system for cylinders turnover monitoring.
- To implement a program for popularization NGV among citizens.

Strategic partners for dissemination of report findings and recommendations:

- Ministries of Energy
- Energy Agencies
- UNDP Country Offices
- Gas Exporting Countries Forum
- International Gas Union
- NGVA Europe
- NGV Global