## Report of the Workshop "Supporting for Transport Decarbonization in Kazakhstan"

The workshop "Supporting for Transport Decarbonization in Kazakhstan" was organized jointly by the United Nations Economic Commission for Europe (UNECE), the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan; JSC "KazTransGas"; Natural Gas Vehicles Association of Kazakhstan; and JSC "Zhasyl Damu".

The workshop was held on 24-25 November 2021 in Almaty, Kazakhstan in a hybrid format (online and in-person). Working languages of the workshop were English and Russian, with simultaneous interpretation. 96 participants, including representatives of government bodies, international and national experts, entrepreneurs representing the interests of the sector took part in this event.

The workshop discussed the issues of decarbonization of transport sector in Kazakhstan by using compressed and liquefied natural gas (CNG and LNG) to help achieve the goal of Kazakhstan's Nationally Determined Contribution (NDC) to achievement of the Paris Agreement goal until 2030 and the consistent achievement of Kazakhstan's carbon neutrality by 2060.

In particular, the event discussed current industry policies, regulatory support, prospects for development of the natural gas vehicles market in Kazakhstan in the context of reducing the carbon footprint of transport services. The discussion also touched upon the necessary measures of state support and the required synchronization of action plans.

The workshop was opened by Mr. Aljas Agabekov, Director of Climate Policy and Green Technologies Department of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, who introduced the goals of workshop and invited participants for active dicussions.

Mr. Alik Ashirov, General director, Chairman of Board of "KazTransGas" in his welcoming remarks announced the expectations from the workshop. Mr. Branko Milicevic, Secretary of the Group of Experts on Gas, UNECE welcomed the participants of workshop and empahsized the importance of support to Kazakhstan in the path towards decarbonization of transport. Ms. Elmira Rakhmalinova, Head of Department of Public Communication and Document Circulation of the Transport Committee of the Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan also provided opening remarks and indicated that gasification of transport requires formation of an appropriate high-tech safe infrastructure in the country.

Session I of workshop discussed transition to natural gas as part of decarbonization process in Kazakhstan. During this session, Mr. Branko Milicevic, Secretary of the Group of Experts on Gas, UNECE presented the role of natural gas in transport in light of the UN 2030 Agenda. Ms. Nadejda Khamrakulova, Project Officer, UNECE presented the activities of the project Improving capacities of the UNECE member States to decarbonize the transport sector by increasing the use of natural gas, funded by the Russian Federation. The main findings and recommendations of the analytical report on the use of gas in transport, its key recommendations and country specific guidelines were presented by Mr. Vasiliy Zinin, UNECE consultant.

Ms. Gulmira Ismagulova, Deputy General Director of JSC "Zhasyl Damu" focused her presentation on decarbonization of transport sector in Kazakhstan until 2030 in the light of the Roadmap for the implementation of NDCs of the Republic of Kazakhstan for 2021-2025 and the

UN Agenda 2030. The specific MRV (monitoring, reporting and verification) issues, collecting necessary indicators to track progress towards the goal of the transport decarbonization were reflected in the presentation by Mr.Alexander Cherednichenko, Chief Specialist of the Department of Greenhouse Gas Inventory of JSC "Zhasyl Damu".

Mr. Evgeni Pronin, Coordinator, Blue Corridor NGV Rally focused his presentation on car life cycle analysis and carbon footprint, comparing gas, petrol, diesel, and electric vehicles.

The state and development objectives of the natural gas vehicles (NGV) market in Kazakhstan were presented by Mr. Talgat Arystanbaev, acting Chairman of the Board of "Natural Gas Vehicles Association of Kazakhstan". He also emphasized the relevance of study on intensity of the traffic of gas vehicles, ensuring traffic safety and refueling with gas as well as creation of additional conditions for the transit of vehicles through the territory of Kazakhstan.

As part of this session, Mr. Bolat Zhardemov, General Director of the "Research Center for Complex Transport Problems" presented the pilot project for the use of liquefied natural gas in mainline diesel locomotives in Kazakhstan.

Session II of workshop focused on the best practices in regulatory, legal, economic and technical activities of the state support measures to increase the share of CNG and LNG vehicles in Kakzakhstan.

Mr. Peter Meyer, Head of External Relations, ZukunftGas, enphasized the best European practices in promoting the use of CNG/LNG. Mr. Alexander Klyushin, Deputy Head of the Department for the Development of Regional Gas Markets, Russian Energy Agency of the Ministry of Energy of the Russian Federation, presented the state policy and incentives for the use of natural gas for vehicles in the Russian Federation. Mr. Vasiliy Zinin, Executive Director of the National Gas Engine Association of the Russian Federation, added on the support measures, preferences, and subsidies for participants in the gas motor fuel market in the Russian Federation. Mr. Daniil Marchenkov, Head of the Minsk Branch of the Gas-main Pipeline Management of JSC "Gazprom Transgaz Belarus" indicated the prospects for development of the gas-motor fuel market in the Republic of Belarus as well as gasification of the international transport route Europe-China.

This session continued on the second day of workshop with presentation by Branko Milicevic, Economic Affairs Officer, UNECE, on organization of technical examination of gas cylinders and improvement of research and technical documentation in this area on public and private transport.

Mr. Yerbol Tokhtarov, Executive Director of the "Natural Gas Vehicles Association of Kazakhstan" provided analysis of the current state and problems of regulatory and technical support for the use of CNG / LNG as a motor fuel in Kazakhstan. Mr. Rinat Biktashev, Development Director, RariTEK Holding, focused his speech on existing technologies and economics of safety assurance on NGVs. Mr. Erbol Bekbergenov, Head of Operations Department of LLP "Almatylectrotrans", shared experience in expanding the use of natural gas as a vehicle fuel in Almaty.

Mr. Donald Streu, President and Chief Executive Officer of Condor Petroleum Inc. (Canada), presented a comprehensive plan for the development of LNG supply and consumer infrastructure in Kazakhstan as well as the investment proposal of his company.

Development of CNG-fueled vehicle assembly production in Kazakhstan was presented by Mr. Adilbek Gaev, Director of an utomobile Plant in the group of companies "Astana Motors".

Mr. Zhambul Dzhabaev, Head of Department for the Protection of Population and Territories of the Committee for Civil Defense and Military Units of the Ministry of Emergency Situations of the Republic of Kazakhstan indicated the regulatory powers in the area of control over the safe operation of vehicles with gas equipment in Kazakhstan.

Digitalization of the refuelling process for creation of a unified database for recording gas vehicle fuel consumption and monitoring the technical condition of gas vehicles was presented by Mr. Amir Urisov, Director of LLP "Nipo group."

Representatives of JSC "Zhasyl Damu" and "KazTransGas" made presentation of the research plan to safe operations of NGVs and assessment of economic, environmental and social effects of the transition of the transport sector of Kazakhstan to natural gas.

The presentations were followed by discussion among participants and speakers. In particular, the views were exchanged on how to overcome the existing regulatory, legal, economic and technical to the use of gas in transport in Kazakhstan. Discussion of opportunities for co-financing and implementation of measures to remove barriers to transport decarbonization in Kazakhstan also took place.

Following the discussions, the participants of workshop signed a joint resolution on recognizing the need to unite efforts in organizing a comprehensive plan to combat the climate change, supporting the goals and objectives of the Paris and Glasgow summits and the UN Global Appeal on climate change, as well as the aspirations of the Government of the Republic of Kazakhstan on the basis of the adopted Doctrine to ensure a consistent reduction in greenhouse gas emissions and the achievement of carbon neutrality by 2060.

The resolution called the state bodies, national companies, public organizations and private business in Kazakhstan to address the pressing issues of environmental preservation and take decisive actions to implement international and domestic programs to reduce emissions of harmful substances and greenhouse gases from vehicles and support the implementation of programs for decarbonization of the transport sector in Kazakhstan by switching to natural gas (CNG and LNG).

Two field trips were organized as part of the event. On the first day of workshop the participants visited the gas bus fleet KAP-2 in Almaty. On the second day of workshop, a visit to the CNG filling station of "AvtoGazAlmaty" and demonstration of the software for recording the volume of gas stations were organized.

Workshop materials are available at the workshop webpage.