Acceleration and enlargement of Tokyo Statement and Global Action Agenda progress Chair's summary of 5th Hydrogen Energy Ministerial Meeting 26 September 2022 Tokyo, Japan

The Ministers and Delegates responsible for coordination of hydrogen energy policy within respective countries met in-person and virtually in Tokyo, Japan on 26 September 2022 to discuss strategies for cooperation toward the development of hydrogen energy.

Since the 1st Hydrogen Energy Ministerial Meeting in 2018, twenty-five countries have formulated national hydrogen strategies, twenty-four counties are preparing or announced to formulate national hydrogen strategies, and those countries are making concrete efforts toward their goals in 2030 and/or beyond 2030. The Hydrogen Energy Ministerial Meeting, as the global Ministerial dedicated specifically to Hydrogen, reported on progress of over 540 thousand fuel cell systems deployment and over 1,100 hydrogen refueling stations towards the Global Action Agenda goals of 10-10-10: 10 million fuel cell systems¹, 10,000 hydrogen refueling station, in 10 years², and added an additional goals on the amount of renewable and low-carbon hydrogen to be produced by 2030 of at least 90Mt H₂, with stress the investment needed to achieve this. The Ministers and Delegates reaffirmed the importance of further collaboration and accelerating activities, such as collaboration on technologies and coordination on harmonization of regulation, codes and standards, and identify existing gaps and solutions for ramp-up of global renewable and low-carbon hydrogen value chain, in line with the Tokyo Declaration and the Global Action Agenda to contribute to realizing the benefits of hydrogen. This includes progress towards "Hydrogen Society", as part of broad energy portfolio such as clean, more prosperous and secure energy worldwide supported by hydrogen in society where appropriate, across power, transportation, industry, heat, and building sectors.

In recent months, we have faced rapid changes in energy circumstances, and there is an urgent need to ensure energy security and resilience. At the same time, there is a need to sustain and strengthen activities toward climate goals. We must also ensure that the transition to clean energy, with net zero emissions, is a just, sustainable, efficient, and equitable transition that enables benefits, jobs, air quality improvements, and more, particularly to disadvantaged and under-represented segments of society. Therefore, we believe that strategically increasing the sustainable production and use of low carbon and renewable hydrogen can contribute significantly to ensuring energy security, resilience, and climate goals. We reaffirmed the need to accelerate efforts to expand hydrogen production,

¹ Including medium and heavy duty vehicles, cars, trucks, buses, off-road, forklifts, marine, air, and stationary systems, etc.

 $^{^{2}}$ By 2030

delivery, storage, and utilization and to reduce costs, on a global scale, with emphasis on ramping up by 2030. We also shared the need to increase the number of countries and regions that are newly interested in hydrogen and that are taking concrete measures related to sustainable hydrogen production, infrastructure, and utilization. Newly participating countries that are committed to the Global Action Agenda can accelerate the construction of international hydrogen supply chains and further enable cost reductions. Promoting "hydrogen valleys" and "hydrogen hubs" in appropriate regions can increase the volumes, and hence reduce the cost, of hydrogen production, transportation, storage, and utilization, especially in these regions, thus reducing any harmful impact on their environment that would persist without the use of decarbonized hydrogen for hard to electrify applications. We reaffirmed the importance of encouraging cooperation among countries and regions through bilateral, multilateral and / or regional frameworks. Furthermore, we recognized that schemes and support that reduce the gaps, such as the cost difference between low-emission hydrogen and fossil fuels, insufficient infrastructure, play an important role to promote the utilization of hydrogen. We confirmed the importance of providing appropriate support to promote the utilization of hydrogen according to the situation in each country. We also reaffirmed the importance of strategic decisions and considering a holistic and sustainable perspective in terms of the ramp up and use of hydrogen across sectors, focusing on the hardest to achieve climate neutrality applications, and ensuring sustainable and efficient use of resources and positive societal impacts.

Ministers and Delegates requested the leading organizations including the International Energy Agency, the International Partnership for Hydrogen and Fuel Cells in the Economy, Clean Energy Ministerial, Hydrogen Initiative, Mission Innovation, Clean Hydrogen Mission, and the International Renewable Energy Agency to take actions on these issues individually and collaboratively. Cooperation in the context of the COP26 Glasgow Breakthrough Agenda, G7, G20 and of the United Nations Framework Convention on Climate Change is also considered critical to leverage resources, avoid duplication, and ensure a cohesive, coordinated, and strategic effort to accelerate progress. This will enable multiple other initiatives and partnerships that are initiating hydrogen activities, such as the World Economic Forum, and others, to work collaboratively towards common goals.