CEM Action Plan to Accelerate Future Fuels

Statement by Ministers of the Clean Energy Ministerial (Brazil, Canada, India, Italy, Japan, Netherlands, Norway, United Arab Emirates and the United States)

Foz do Iguaçu, Brazil

3 October 2024

Future Fuels are essential in the transition to net zero

We, the Ministers of the countries participating in Clean Energy Ministerial (CEM) fuels-related workstreams, as listed below, affirmed at the 15th Clean Energy Ministerial meeting in Foz do Iguaçu, under the Brazilian G20 and CEM Presidencies, that Future Fuels consisting of sustainable fuels that can drastically reduce emissions, such as sustainable biofuels, clean hydrogen and its derivatives such as ammonia, e-fuels, e-methane, are essential in the transition to net zero. These fuels are particularly relevant in the transport sector, as well as industries such as cement and steel production.

The need to accelerate the production and use of Future Fuels has been recognised over the years by the G7, the G20 and more recently captured in the UAE Consensus encompassing the outcome of the first Global Stocktake under the Paris Agreement adopted at the 28th UN Climate Change Conference.

In this context, we are working through the Clean Energy Ministerial to intensify collaboration between interested governments, industry and partner organisations on aligned actions that accelerate Future Fuels use and supply by promoting:

- Increased demand for, and use of, Future Fuels.
- Integrated global supply chains for Future Fuels.
- Common and transparent standards for lifecycle carbon accounting and sustainability of fuels.

Promoting increased demand for, and use of, Future Fuels

CEM members, workstreams and partner organisations are cooperating to support a sustained increase in the demand for sustainable fuels, in line with national circumstances. Actions now underway by interested CEM members include:

- Encouraging the production of sustainable fuels.

- Prioritising end use applications that are high-emitting and have few decarbonisation options aside from sustainable fuels (*CEM Biofuture Platform*).
- Intending to use Future Fuels to support reductions in manufacturing emissions from steel, cement and concrete in public construction projects (*CEM Industrial Deep Decarbonisation Initiative*).
- Campaigning to increase demand for clean hydrogen (*CEM Hydrogen Initiative*).
- Promoting the use of near-zero emissions cement using carbon capture, utilization and storage (CCUS) technologies, a key technology for producing near-zero emissions cement (*CEM CCUS Initiative*).
- Promoting the use of sustainable feedstocks from biofuels and CCUS technologies, to manufacture chemicals (*CEM CCUS Initiative* and *CEM Biofuture Platform*).
- Investigating the optimal contribution of sustainable biomass feedstocks to the production and use of sustainable fuels (*CEM Biofuture Platform*).

Promoting integrated global supply chains

CEM members, workstreams and partner organisations are promoting integrated global supply chains by coordinating activities and bringing together the main links in the value chain. The aim is to create markets and developing new infrastructure to support the production and use of Future Fuels, in line with national circumstances. Actions now underway by interested CEM members include:

- Promoting the development of international trade corridors for clean hydrogen and its derivatives to boost energy security, lower energy system costs and enable a just transition (*CEM Hydrogen Initiative* / *International Hydrogen Trade Forum* in collaboration with the Hydrogen Council).
- Facilitating private-public dialogue between exporting and importing countries for clean hydrogen (*CEM Hydrogen Initiative* / *International Hydrogen Trade Forum* in collaboration with the Hydrogen Council).
- Facilitating the enabling link between the private sector and governments across the energy-maritime value chain to unlock untapped opportunities to accelerate the production and trade of sustainable fuels as well as its use by shipping across the world (*CEM-Hubs*).

- Bringing together public and private expertise across the energy-maritime value chain to plan large-scale energy marine hubs that position ports all over the world as unique clean energy centres, where Future Fuels can be produced, stored, transformed, bunkered and used as well as imported and exchanged (*CEM-Hubs*).
- Strengthening the capabilities of ports under the CEM Global Ports Hydrogen Coalition (*CEM Hydrogen Initiative*).
- Considering carbon transportation and storage infrastructure requirements where CCUS technologies are needed to support sustainable fuels and other products (e.g. cement, iron and steel) (*CEM CCUS Initiative*).
- Pursuing efforts to measure and mitigate climate and other environmental impacts throughout the value chain, such as monitoring hydrogen losses and reducing NOx losses (*CEM Hydrogen Initiative*).

Promoting common and transparent standards

CEM members, workstreams and partner organisations are promoting common and transparent approaches and standards for lifecycle carbon accounting, in line with national circumstances. Actions now underway by interested CEM members include:

- Pursuing efforts to build investor confidence in the consistency, transparency and evidence-based assessment mechanisms for sustainable fuels such as biofuels and end-use products like steel, cement, chemicals, plastics and other materials (*CEM Industrial Deep Decarbonisation Initiative*, *CEM CCUS Initiative* and the *CEM Biofuture Platform*).
- Supporting the development and use of transparent and internationally recognised carbon intensity accounting standards for clean hydrogen and its derivatives *(CEM Hydrogen Initiative* with the partner organisations including the International Organisation for Standardisation and the International Partnership for Hydrogen and Fuel Cells in the Economy).
- Supporting the transparency, mapping and potential harmonisation of jurisdictional evidence-based carbon accounting methodologies for sustainable biofuels (*CEM Biofuture Platform*).
- Collaborating on the development of harmonised emissions accounting standards for low-carbon steel and cement products to encourage best

production and manufacturing practice (*CEM Industrial Deep Decarbonisation Initiative*).

- Intending to disclose the embodied carbon emissions of steel, cement and concrete in publicly-funded construction projects (*CEM Industrial Deep Decarbonisation Initiative*).
- Promoting and supporting further development of CCUS technology codes and standards (*CEM CCUS Initiative*).

Continued acceleration of Future Fuels beyond CEM15

The CEM is committed to ongoing action to accelerate the production and use of Future Fuels. We, the Ministers of the countries participating in the CEM fuels-related workstreams, as listed below, intend to continue supporting the CEM community as an implementation platform for Future Fuels in support of outcomes of international fora such as the G7, G20 and annual UN Climate Change Conference in 2025 and beyond.

CEM workstreams

- CEM Biofuture Campaign
- CEM Biofuture Platform
- CEM Carbon Capture, Utilization and Storage Initiative
- CEM Clean Energy Marine Hubs Initiative
- CEM Hydrogen Initiative
- CEM Industrial Deep Decarbonisation Initiative

Participating CEM Member countries

- Brazil
- Canada
- India
- Italy
- Japan
- Netherlands
- Norway
- United Arab Emirates
- United States