Clean Energy Ministerial (CEM) and Mission Innovation (MI) Agenda for Action on Power Systems Solutions

Preamble

On the occasion of the 15th Clean Energy Ministerial (CEM15) and 9th Mission Innovation Ministerial (MI-9) in Foz do Iguaçu, Brazil, we, the Ministers responsible for energy and innovation from the undersigned CEM and MI Members met to discuss implementing actions needed to boost power systems infrastructure deployment and achieve our climate and clean energy goals.

We recognized the importance of accelerating transitions toward a sustainable energy future and the central importance of electrification and, therefore, power sector infrastructure to that objective. In particular, we highlighted the *"Outcome of the First Global Stocktake"* of the Paris Agreement adopted at the 28th UN Climate Change Conference, which calls on Parties to contribute to tripling renewable energy generation capacity globally by 2030 and doubling the global average annual rate of energy efficiency improvements by 2030 in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches. We also noted other relevant commitments, like the G7 Hiroshima Leaders' Communique (2023), G20 New Delhi Leaders' Declaration (2023), COP28 UAE Consensus, IEA Ministerial Communique (2024), and G7 Apulia Leaders' Communique (2024).

Emphasizing the vital role that CEM and MI play as implementation fora, we reaffirm our strong support and encourage others to join us in implementing the following *CEM-MI Agenda for Action on Power Systems Solutions*.

Agenda for Action

As the CEM and MI Ministers of the undersigned countries, we underscore our intention to ensure sustainable, decarbonized power systems that are cost-effective, equitable, secure, and resilient. We reaffirm our sustained strong support to work together through relevant CEM workstreams, MI missions, and the CEM and MI communities to help advance power system solutions, which are working to drive forward this agenda through activities including:

- **Improve planning and investment certainty.** Support the understanding, adoption and use of advanced power systems and transmission and distribution grid planning tools; advance and share regulatory solutions employed in our respective countries to decarbonize the power sector; provide expert assistance, capacity building, and technical knowledge to support clean energy planning; and inform countries on options and implementing actions to achieve their existing or proposed power sector goals. These actions would support longer-term planning and help countries establish clear policy and regulatory frameworks and market designs that are essential to attract sustained investment.
- **Support modernizing and expanding transmission and distribution grids.** Enhance understanding through knowledge sharing on advanced grid and smart grid technology developments, grid infrastructure planning and financing, testing, and operations; conduct new studies on smart grids supporting the development of more resilient and flexible power

infrastructures; support dissemination of selected national pilot projects and their replicable innovative results; and promote funding mechanisms to finance multilateral research projects. These actions would support adoption and use of technologies and approaches that improve grid reliability and efficiency.

- **Unlock power system flexibility**. Increase the understanding and adoption of diverse solutions that allow power systems to respond quickly and flexibly to variations in electricity supply and demand, such as operational improvements, market design changes, advanced forecasting, grid expansion, generation flexibility, grid-scale energy storage, demand response programs, and advanced grid management software; increase awareness of key challenges, opportunities, and factors for success to advance deployment of flexibility solutions, both in advanced and developing economies; promote a shared understanding of lessons learned, emerging best practices, and the value that smarter, more flexible electricity systems can bring; and support capacity building and technical assistance. These actions would help countries meet growing electricity demand while assuring reliable, resilient, sustainable, and economically efficient power.
- **Deploy e-mobility infrastructure**. Support the inclusion of e-mobility demands in national power sector planning and e-mobility charging infrastructure programs (including Vehicle-to-Grid) by sharing lessons learned and promoting best practices in e-mobility infrastructure planning. We aim to advance strategic collaboration across relevant public and private sectors to demonstrate replicable and scalable models for successful infrastructure deployment and finance; and support developing countries with knowledge and technical assistance on e-mobility infrastructure deployment. These actions would enhance grid infrastructure deployment and capacity planning while accelerating the adoption of e-mobility options and charging infrastructure.
- **Strengthen energy supply chain resilience and sustainability:** Help governments explore innovative policy solutions and opportunities to diversify their supply chains for clean power sector components, implement sustainability standards, and enhance mutually beneficial coordination efforts across value chains. These actions would help assure resilient, diverse global supply chains for vital clean power sector components while expanding enhanced local manufacturing capabilities and rigorous adherence to environmental standards.
- **Advance a just and inclusive transition.** Implement enhanced technical support and capacity building to address skills, workforce development, and equity in power system transformation while achieving electricity access and decarbonization goals; support the economic and workforce planning of developing countries by providing insights on the employment, earnings, gross domestic product, and other economic impacts from power systems solutions; and support developing countries' clean power priorities and sharing knowledge and best practices from existing pilot projects. These actions would help keep people at the center of clean energy transitions.

Collaboration

We express support for CEM and MI collaboration and recognize that while the objectives described above align with the goals and activities of several CEM workstreams and MI missions, they do not cover every power system solution needed. We, therefore, underscore the importance of engaging with other relevant fora to foster efficient and effective collaboration wherever

possible across international power system activities. We welcome the contributions provided by partners to the efforts mentioned above and are grateful for their support integrating our efforts with their own initiatives.

3rd October 2024

LIST OF CEM and MI MEMBERS

1. Australia
2. Austria
3. Brazil
4. Canada
5. Chile
6. China
7. Denmark
8. Finland
9. France
10. Germany
11. India
12. Indonesia
13. Italy
14. Japan
15. Mexico
16. Netherlands
17. New Zealand
18. Norway
19. Poland
20. Portugal
21. Saudi Arabia
22. South Africa
23. South Korea
24. Spain
25. Sweden
26. United Arab Emirates
27. United Kingdom
28. United States