Action Plan for Next Decade[i]

***Attached document to the 2nd AZEC Leaders' Joint Statement in 2024**

1 Develop a short- to medium-term action plan to facilitate AZEC solutions:

1-1. Enhancing the competitiveness of industries through visualization of GHG emissions throughout the supply chain

To create and expand markets where emission reduction efforts are valued, we will work together to advance visualization of GHG emissions throughout the entire supply chain, depending on national circumstances. This may include facilitating GHG measurement and reporting practice for business activities, developing indicators and approaches to evaluate GHG emission reductions achieved through advanced decarbonization technologies, exchanging information and opinions on mutual recognition of certification and reporting systems where appropriate, leveraging existing method guidance such as that published by the IPCC where possible, and sharing our knowledge and existing practices in carbon pricing, which, among various policy instruments and if appropriate, can be effective not only in reducing emissions but also driving economic growth in Asia and the entire world. We will also work together to reduce emissions in industrial sector by using renewable energy and implement energy management.

1-2. Promoting transition finance

To draw in private sector investments, we stress the importance of collaboration with stakeholders such as relevant industries and MDBs to enhance bankability of projects such as energy infrastructure, and channel capital into new growth areas such as clean and transition technologies, products and services, as well as transform business strategies to unlock financing into worthy sustainable projects, which are necessary for decarbonization and energy transitions in Asia. To this end, we will collaborate to emphasize the importance of just and affordable financing for transitions as well as collaboration between public and private for innovative financing such as blended finance, and other financial methods. In this context, we welcome the recently publicized Asia Transition Finance Study Group (ATF SG) Activity Report and the Technology List and

Perspectives for Transition Finance in Asia (TLP), and their continuous expansion.

1-3. Promoting emission reductions and carbon removals through dissemination of technologies and innovations in the agriculture and forestry sectors

We will collaborate to establish and promote the Asia Monsoon region's model for emission reductions and carbon removals in the agriculture and forestry sectors through dissemination of technologies and innovations among AZEC partner countries, based on initiatives such as the ASEAN-Japan MIDORI Cooperation Plan. Specifically, we will accelerate efforts to establish technologies tailored to each AZEC partner country, facilitate GHG calculation and reporting practice, and establish rules to promote JCM projects in the agriculture sector among JCM partner countries within AZEC.

1-4. Decarbonization of the transport sector

We will accelerate emission reductions from road transport through a range of pathways. In this context, we welcome the support from ERIA in developing the Master Plan for Next-Generation Automobile Industry Strategy which is targeted to be finalized by 2025. Additionally, we will collaborate to establish sustainable fuel and raw material manufacturing and supply systems that adhere to international standards. Furthermore, we will collaborate in multilateral fora for decarbonization in the maritime sector and we will encourage the development of advanced technologies for Sustainable Aviation Fuel (SAF). Moreover, we will cooperate in implementing projects to realize decarbonized and sustainable transport through multilateral frameworks such as the ASEAN-Japan Transport Partnership (AJTP).

1-5. Promotion of Carbon Neutral Ports (CNPs) and lowering emission of road infrastructure

We will collaborate to promote the development of Carbon Neutral Ports (CNPs) in Asia. This will involve various initiatives such as developing CNP guidelines for Asian countries through the ASEAN-Japan Port Technology Group Meeting under the AJTP. We will also conduct studies on

the establishment of the enabling environment at port facilities for handling and utilizing sustainable fuels. Furthermore, we will actively promote the lower emission of road infrastructure and collaborate to facilitate introduction of relevant systems, rules, and regulations, which will be accompanied by visualization of the reduction of GHG emissions and improvement of resource efficiency achieved through technologies including asphalt reclamation.

1-6. Promotion of high-integrity carbon markets

We will collaborate on high-integrity carbon markets, including to expand carbon credit markets, where applicable, in a way that contribute to the emission reductions of AZEC partner countries. This may include expanding JCM partner countries within AZEC, promoting project formation through public-private partnerships, city-to-city collaboration, promoting the preparation of long-term low-emissions development strategies and ambitious NDCs, and institutional arrangements to enable credit transactions. In this context, we welcome progress to promote cooperative mitigation activities within AZEC, including under the JCM.

1-7. Strengthening Economic and Energy Resilience

We will collaborate to promote open, well-functioning international energy markets and to strengthen economic and energy resilience, taking into account national circumstances, priorities and international commitments. This may include, depending on national priorities:

- Supporting initiatives to strengthen energy supply systems and expand reliable infrastructure such as through the development of stockpiling and release systems and related infrastructure for crude oil, petroleum products and other energy resources, the maintenance and restoration of production and supply capacity, and cooperation to maintain safe and stable and open maritime transport:
- Encouraging diversification of energy sources, as well as securing stable supplies of critical minerals, promoting local value addition, advancing resource circulation:
- Strengthening supply chain resilience in critical industries and advancing industrial upgrading through energy-efficiency

investment and cooperation, as well as through innovation, technology and human resource development. In this regard, we recall the importance of regional efforts including through the Partnership On Wide Energy and Resources Resilience Asia (POWERR Asia).

2. Sectoral initiatives

We will promote initiatives to promote the decarbonization and emission reductions of sectors with high GHG emissions in AZEC partner countries.

2-1. Sector-specific collaboration initiatives towards carbon neutrality/net-zero emissions

We welcome the launch of AZEC Sectoral Initiatives at the 2nd AZEC Ministerial Meeting in August 2024. In the AZEC Zero Emission Power Initiative, collaboration will be conducted, depending on national circumstances, on promotion of zero-emission thermal power generation through using hydrogen, ammonia, bioenergy and CCUS, maximizing renewable energy, implementation of energy efficiency, and ensuring grid reinforcement and flexibility. AZEC partner countries will explore collaboration in multilateral power trade in ASEAN that is mutually beneficial in order to realize the ASEAN Power Grid, including by strengthening grid infrastructure through investment and facilitating the development and transit of cross-border subsea power cables in ASEAN. In the AZEC Sustainable Fuel Initiative, efforts will be made to establish supply chains for sustainable fuels such as SAF, e-fuels, biofuels, hydrogen, and ammonia in the aviation, automotive, and maritime sectors, with a focus on Asia. The AZEC Next-Generation Industry Initiative will provide support for carbon neutrality in industrial parks and next generation automobile industry among other activities.

2-2. The Asia Zero Emission Center

As a leading institution supporting efforts under AZEC including the AZEC Sectoral Initiatives, the Asia Zero Emission Center in ERIA will conduct activities such as updating decarbonization roadmaps which align with reality of each country, conducting surveys and policy recommendations to

advance the ASEAN Power Grid, formulating the Master Plan for Japan-ASEAN Next-Generation Automobile Industry Strategy, conducting surveys on energy-saving potential including heat pumps, knowledge sharing and institutional building support for CCUS/Carbon Recycling in collaboration with the Asia CCUS Network, and conducting surveys on the supply and demand potential of hydrogen and ammonia. Additionally, the Center will provide insights on market enablers such as green and transition finance and carbon market through operating the Asia Transition Finance Study Group (ATF SG), publishing Technology List and Perspectives for Transition Finance in Asia (TLP), and conducting research on high integrity carbon market scheme and effective frameworks for promoting public-private financial collaboration.

3. Promoting tangible projects

We will promote tangible projects to contribute to decarbonization and emission reductions that benefit AZEC partner countries. Below are leading examples of projects led by AZEC partner countries.

3-1. Japan-led projects

Under the AZEC platform, Japan has been making efforts to support energy transitions in AZEC partner countries through various technologies, such as renewable energy, energy efficiency, hydrogen and its derivatives such as ammonia, e-fuels and e-methane, and CCUS, in line with their respective transition pathways, leading to over 350 cooperation projects currently under way in AZEC partner countries. Japan will further contribute to energy transitions towards carbon neutrality/net-zero emissions in AZEC partner countries through tangible projects, including in broader areas related to energy transitions.

3-1-1. Creation of specific projects through ODA (particularly Co-Creation for Common Agenda Initiative)

Japan utilizes ODA to support energy efficiency measures, renewable energy generation projects, transmission and distribution network development, and provide technical cooperation such as training and master plan development for energy transitions. Through offer-type

cooperation, Japan collaborates with various stakeholders, including private companies, to support decarbonization efforts.

3-1-2. Creation of specific projects through support from JBIC

JBIC, jointly with the Japanese government, establishes frameworks for dialogue with AZEC partner countries' government agencies, conducts high-level dialogues, and presents proposals for institutional improvements, and promote individual projects with a focus on new clean power development. JBIC promotes transmission and distribution network development, and carbon neutrality/net-zero emissions in building and industrial park development, considering the dissemination and penetration of decarbonization technologies of procurement sources of Japanese companies.

3-1-3. Creation of specific projects for emission reductions and carbon removals in the agriculture and forestry sectors

Japan promotes cooperation projects based on the "ASEAN-Japan MIDORI Cooperation Plan" to simultaneously enhance productivity and achieve emission reductions and carbon removals in the agriculture and forestry sectors in AZEC partner countries through utilizing technology and innovation, including, but not limited to: increasing efficiency through automatic steering technology, improving water management in paddy fields using ICT to reduce GHG emissions and establishing the basic Measurement, Reporting and Verification (MRV) environments to scale up GHG reduction.

3-1-4. Creation of specific projects through support from Japanese Institutions

Japanese institutions including JETRO, JOGMEC, NEDO and NEXI aim to develop projects through collaboration with AZEC partner countries' companies, institutions, and governments in energy development such as CCUS, hydrogen, ammonia, renewable energy including geothermal and bioenergy, and promotion of energy efficiency measures.

3-1-5. Promotion of GX through cooperation in the smart city sector and creation of specific projects

Japan promotes cooperation in the smart city sector to contribute to the realization of a decarbonized society in AZEC partner countries. This includes collaboration with the ASEAN Smart Cities Network to provide opportunities for sharing expertise and technology tailored to local needs, as well as facilitating partnerships between the public and private sectors through project formation support and hosting international conferences. Additionally, Japan promotes discussions on project formation for hybrid technologies, such as improving the operation and efficiency of existing dams for flood control and hydropower generation, which can simultaneously reduce flood damage (adaptation measures) and GHG emissions (mitigation measures).

3-1-6. Promotion of waste-to-energy projects to prevent pollution and achieve clean and decarbonized waste treatment

Japan promotes pollution prevention, improvement of public health, and decarbonization in the waste and resource circulation sectors with AZEC partner countries in Asia through the deployment of advanced waste-to-energy technologies that contribute to environmentally sound waste management and reduction of GHG emissions, including methane.

3-2. Australia-led projects

Australia was pleased to announce its support for the Asia Zero Emission Center in September 2024. Other recent support by Australia that contributes to decarbonization cooperation in the region includes: the A$2 billion Southeast Asia Investment Financing Facility announced at the 2024 ASEAN-Australia Special Summit; an additional A$6.9 million for energy cooperation through the Aus4ASEAN Futures Initiative with a focus on support for the ASEAN Centre for Energy; a A$10 million climate and energy window under the Southeast Asia and Australia Government-to-Government Partnerships Program; an additional A$140 million for Australia's support for Partnerships for Infrastructure (P4I) which will enable continued support for partner countries on energy system regulation and management, grid integration of renewables, transport decarbonization and the development of energy infrastructure; and cooperation through the Quad Clean Energy Supply Chain Diversification Program and the IPEF Hydrogen Supply Chain Initiative.

[i] This list of the Action Plan for Next Decade will be updated in line with the progress of AZEC solutions, initiatives and projects of each country.