Joint Statement of the 11th Japan-India Energy Dialogue

The 11th meeting of the Japan-India Energy Dialogue, co-chaired by His Excellency Mr. Muto Yoji, Minister of Economy, Trade and Industry of Japan and His Excellency Mr. Manohar Lal, Minister of Power and Housing and Urban Affairs of India was held through VC on 25th August, 2025.

The Ministers recognized the importance of deepening cooperation in the energy sector based on the "Japan-India Clean Energy Partnership" consented between the leaders in 2022. The Ministers reviewed the progress made since the last Energy Dialogue and discussed a wide range of areas of cooperation.

1. The Ministers stressed the importance of achieving a "triple breakthrough" in ensuring energy security, promoting inclusive economic growth, and addressing climate change simultaneously. Acknowledging that there is no single pathway, the Ministers called for adopting various realistic pathways toward carbon neutrality/net zero emissions, considering country-specific circumstances, existing goals and policies, and development challenges, including but not limited to geographical, economic, technological, institutional, social, and equity factors.

2. The Ministers shared their concerns regarding the current global energy situation and affirmed that closer energy cooperation between the two countries will contribute to ensuring energy security and a stable energy supply in the region. To this end, the Ministers expressed their commitment to working towards diversifying energy sources and establishing secure, efficient, resilient, and sustainable energy systems in order to achieve sustainable economic growth.

3. The Ministers reaffirmed the important role played by clean and renewable energy and recognized the importance of accelerating private investment and government cooperation in the energy sector. In this regard, the Ministers welcomed the finalization of the text proposed under the "Japan-India Joint Declaration of Intent on Clean Hydrogen and Clean Ammonia (JDI)" and expressed their commitment to leverage the combined strengths of the two countries in developing low carbon energy systems.

4. The Ministers welcomed the progress made since the 10th Japan-India Energy Dialogue in several areas (listed in Annexure-I) and endorsed the following areas for possible future cooperation between the two countries in the energy sector (Japan-India Energy Transition Plan).

5. The Ministers welcomed the progress on the Joint Crediting Mechanism (JCM) between Japan and India to promote energy transition and achieve the nationally determined contributions of the two countries.

6. **Potential areas of cooperation in the future**

(A) Electricity and Energy Conservation

- Support the Formulation of a Roadmap for Low Carbon Emission in the Electricity Sector. The Japan International Cooperation Agency (JICA) will provide policy and technical support to CEA in formulation of energy policies and adoption of advanced technologies for low carbon development of the power sector in India.
- Knowledge sharing on transition financing.
- Evaluate the effectiveness of variable speed pumping equipment for grid stabilization as renewable energy is introduced and promote further cooperation in this area.
- Optimize grid stabilization and distribution system operation, including automatic generation control, advanced renewable energy generation forecasting, and storage batteries.
- Promote Zero Energy Buildings (ZEB), comparing existing standards, and sharing the latest technical information on energy efficiency of buildings in the two countries.
- Strengthen energy efficiency programs and supports tools to promote energy conservation and low carbon development of industrial sectors.
- Promote investment in manufacture of energy-efficient AC compressors in India.
- Flexibilization study in Super-critical units to assess the impact of Benson point (dry to wet mode) during low load operation to support the integration of renewable energy while maintaining a stable and sustainable electricity supply.
- Cooperation in the field of:

    a. Production and supply chain between India and Japan of clean including green hydrogen and its derivatives and sustainable aviation fuel.

    b. Co-firing of clean including green Hydrogen and Ammonia in Thermal and Gas Power Projects.

(B) New and renewable energy

- Based on the proposed Japan-India Joint Declaration of Intent on Clean Hydrogen and Clean Ammonia (JDI), discuss the possibility of harmonization for the formation of a clean hydrogen and ammonia market, identification of R&D projects including clean hydrogen and ammonia applications, etc.
- Encourage various initiatives to connect companies, such as public-private workshop, closer cooperation within the academia and R&D institutions, while also focusing on business match making events.

- Utilize support tools to promote solar, wind, and other renewable energy projects and their supply chains. (including technology demonstration and dissemination, commercialization plans, and business entry by the private sector)
- Explore the feasibility of cost-competitive green methanol production, a green chemical that can be used as a feedstock in various industries and as a fuel for the marine sector, by combining Japan's methanol production technology with India's renewable energy sources.
- Explore the feasibility of green methanol supply chain between India and Japan, with an aim of cost-competitive green methanol production, port infrastructures and supply chain network.

(C) Petroleum and Natural gas

- Strengthening cooperation through continued dialogue on the entire Oil and Natural Gas value chain through meetings of the Working Group.
- Strengthening cooperation among like-minded countries through augmenting linkages between multiple stakeholders representing government agencies, businesses, think tanks, etc.
- Cooperation in Global Early Alert Mechanism.
- Recognizing the importance of informed decision-making, both sides invited planning agencies of the two countries to explore mechanisms for information and data sharing.
- Cooperation in the field of new fuels such as biofuels and e-fuels (exchange of information on technology and policy trends, joint R&D programs, setting up for joint commercial/ demonstration projects, sharing of best practices).
- Acknowledged the importance of collaborations between Indian government entities and Japanese companies for decarbonization in the energy sector, utilizing JBIC financial support.

(D) Coal

- Explore possibilities of cooperation for just, affordable and inclusive and equitable energy transition through information exchange, knowledge sharing, joint R&D programs, setting up for joint commercial/demonstration projects, sharing of best practices on CCUS/carbon recycling and other upstream and downstream clean coal technologies.
- Future dialogues may be considered to advance technical cooperation between both countries, focusing on cleaner and more sustainable ways to utilize coal.
- Explore the potential collaboration between India and Japan in the field of CCUS technologies. Additionally, if any Japanese CCUS or coal gasification technology providers are interested in partnering with Indian entities for the development of clean coal technologies, opportunities for collaboration may be considered.

7. The Ministers pledged to continue maintaining and strengthening close cooperation on energy sector issues, both bilaterally and through other fora such as COP, G20 and QUAD.

(Japan) **(India)**

Muto Yoji
(Minister of Economy, Trade and Industry)

Manohar Lal
(Minister of Power and Housing & Urban Affairs)

Annexure-1

Achievements and progress of cooperation

(A) Electricity and Energy Conservation

1) Tulga Pumped Storage Power Plant Construction Project: Both countries are constructing a pumped storage power plant (two constant-speed pumped storage units and two variable-speed pumped storage units) in West Bengal under a JICA yen loan project for the purpose of strengthening peak power supply capacity and grid stabilization measures.
2) Progress of NEDO Demonstration Project: In a project sponsored by the New Energy and Industrial Technology Development Organization (NEDO), a Japanese electrical machinery company and an Indian power company are working on the installation of a micro-substation in the suburbs of Delhi that directly converts power from a special high-voltage transmission line to low voltage and supplies the power to surrounding areas. The project aims to spread the technology to stably supply electric power to areas where power distribution networks are not yet in place. Under the NEDO project, a Japanese heavy industry company, a Japanese trading company and an Indian power company conducted the necessary studies to conduct India's first demonstration of ammonia co-firing at an existing coal power plant in the state of Gujarat.
3) MoUs between CEA and JCoal

   On the occasion of Fourth Ministerial-Level meeting of the Energy Dialogue between India and Japan, an MoU between Central Electricity Authority (CEA) and Japan Coal Frontier Organization (JCOAL) was signed in the year 2010 for Studies regarding Efficiency and Environment Improvement of Coal Fired Power Plants. This was the Ist MoU between CEA and JCOAL. Three more MoUs were signed between CEA and JCOAL and the 5th MoU is under consideration. Under the MoUs, the following activities were carried out: (i) Environmental Study through combustion test of Indian coal at Japanese Laboratory was conducted and report submitted in Jan 2017.

   (ii) Study on O&M enhancement and safety improvement of Unit #1, 500 MW at Durgapur Steel TPS of DVC has been conducted in May 2018.

   (iii) Study on flexible operation of thermal plant conducted at 500 MW unit of Vindhyachal TPS, NTPC.

   (iv) A Viability Study on co-firing technology of Agricultural Waste with Coal was also conducted by JCOAL in Lehra Mohabbat, PSPCL for Air Pollution Control in India in Feb. 2020.

   (v) SCR Pilot test at Sipat TPS, NTPC conducted for implementation of De-Nox measures.

   (vi) An annual Workshop on Efficiency and Environmental Improvement for Sustainable, Stable and Low-carbon Supply of Electricity was held in Delhi.

   (vii) A CCT Training Program on Efficiency & Environment Improvement for Sustainable, Stable and Low Carbon Supply of Electricity was held in Japan.

4) Investment Promotion Program in Tamil Nadu (Phase 3) JICA, in collaboration with the Energy Conservation Center, Japan (ECCJ), will support the greening of industry in Tamil Nadu through the development of environmentally friendly industrial parks and the introduction of subsidy programs for energy conservation and CO2 reduction, thereby further promoting private investment and the advancement spread of renewable energy.

5) Investment in local production of electric vehicles and automotive batteries: A Japanese Motor Company and the State of Gujarat signed a MoU on investment in local production of Battery electric vehicles (BEVs) and automotive batteries for BEVs.

6) Power Sector Advisor JICA experts were dispatched to the Central Electricity Authority of India (CEA) for three years starting Nov. 2021, to provide policy and strategic support in promoting the mass introduction of variable renewable energy while maintaining stable power supply and quality. They also worked to strengthen the CEA's framework for implementing these initiatives.

7) Human Resource Development for Energy Conservation: The Energy Conservation Center, Japan (ECCJ) supported the formulation of energy efficiency and conservation guidelines and management standards for the industrial sector and held 9 on-site and online seminars for dissemination since the 10th meeting.

(B) New and Renewable Energy

The Ministers welcomed the progress made under the JWG on New and Renewable Energy. Both sides during the JWG meeting have consented on further encouraging initiatives to bring together businesses, academia and research institutions from both sides in the field of clean energy. During the meeting held on 23 January 2025, both sides acknowledged the importance of cooperation in renewable energy supply chain, low-cost sustainable finance and clean hydrogen and ammonia. The Japanese side also shared the details of following projects:

1) Progress of NEDO Demonstration Project: In the NEDO project, a Japanese Motor Company and a Japanese Hydrogen Company are conducting a study for the demonstration of hydrogen technologies to decarbonize an automobile factory in the state of Haryana.

2) JBIC Japan-India Fund Investment and Financing for Renewable Energy Projects: The Japan Bank for International Cooperation (JBIC) has invested in the India-Japan Fund, which invests in Indian companies or projects that have potential for collaboration with Japanese companies in the field of environmental conservation, such as renewable energy and electric vehicle-related projects in India, and has also provided loans to the State-owned Power Generation Corporation of India and a government-affiliated financial institutions to support solar power, wind power, and waste power generation.

3) Participation in renewable energy business by Japanese private companies: A Japanese trading company is engaged in the development of renewable energy sources and power supply projects for solar and wind power in collaboration with major local renewable

energy developers. A Japanese trading company and an Indian Energy company are engaged in the development and power supply of renewable energy sources, such as solar and wind power, through a joint venture established locally.

4) New Energy Human Resource Development: The two countries have continued to exchange views on hydrogen and other issues. In Dec. 2023, in New Delhi, the two countries introduced the trends and issues of their hydrogen policies and the initiatives of companies in both countries and exchanged views. In Jan. 2025, a Japan-India hydrogen Workshop was also held in Mumbai.

(C) Petroleum and Natural Gas

1) Continued dialogue in the Petroleum and Natural Gas Working Group.

The two countries continue to discuss the priorities and steps being taken towards the development of a "gas-based economy", including expansion of gas infrastructure, increasing production, research & development cooperation etc. In this context, both sides recognized the need for greater collaboration among countries with similar priorities and objectives. Both sides also recognized the need to:

- Strengthen cooperation among consuming countries, across the entire energy value chain, including investment, trade, and cooperation with third countries
- Share best practices in methane reduction measures
- Cooperate on gas security (information exchange and others) including through early warning systems
- Emphasize the importance of domestic circumstances and considerations in low-carbon development
- Highlight the importance of producer countries to expand production and follow a reasonable and responsible pricing
- Explore strengthening the buying power of our industries through exploring the possibility of joint procurement

2) Cooperation on R&D

Both sides recognized the need for continued collaboration in the area of research and development and in this context welcomed efforts being taken under the MoU between the Directorate General of Hydrocarbons (DGH), India and Japan Organization for Metals and Energy Security, Japan.

Both sides also consented to promote collaboration on knowledge and information sharing, joint R&D programme, and developing joint demonstration/ commercial projects for production of various types of biofuels, including CBG, SAF, etc.

3) Strengthening Business to Business Cooperation:

Under a NEDO project, a Japanese industrial gas manufacturer is conducting a study for the establishment of a local supply chain model through the production of bio-methane from cattle manure and agricultural waste in the state of Haryana.

Japanese gas companies have entered the city gas business in India through investment in a local city gas company, contributing to low-carbon energy and stable supply.

4) Training by JOGMEC: JOGMEC has conducted LNG value chain training programs 7 times and invited total 19 participants from India.

(D) Coal

The two countries have continued to discuss the possibility of cooperation in the areas of coal and CCUS and held a CEA-JCOAL workshop in Dec. 2023 in New Delhi to exchange views on biomass-hydrogen-ammonia co-firing, CCUS, and carbon recycling as initiatives toward energy transition.

The JWG meeting on Coal between India and Japan under the 11th Energy Dialogue was held on 25 Feb. 2025.