



METI

Ministry of Economy, Trade and Industry

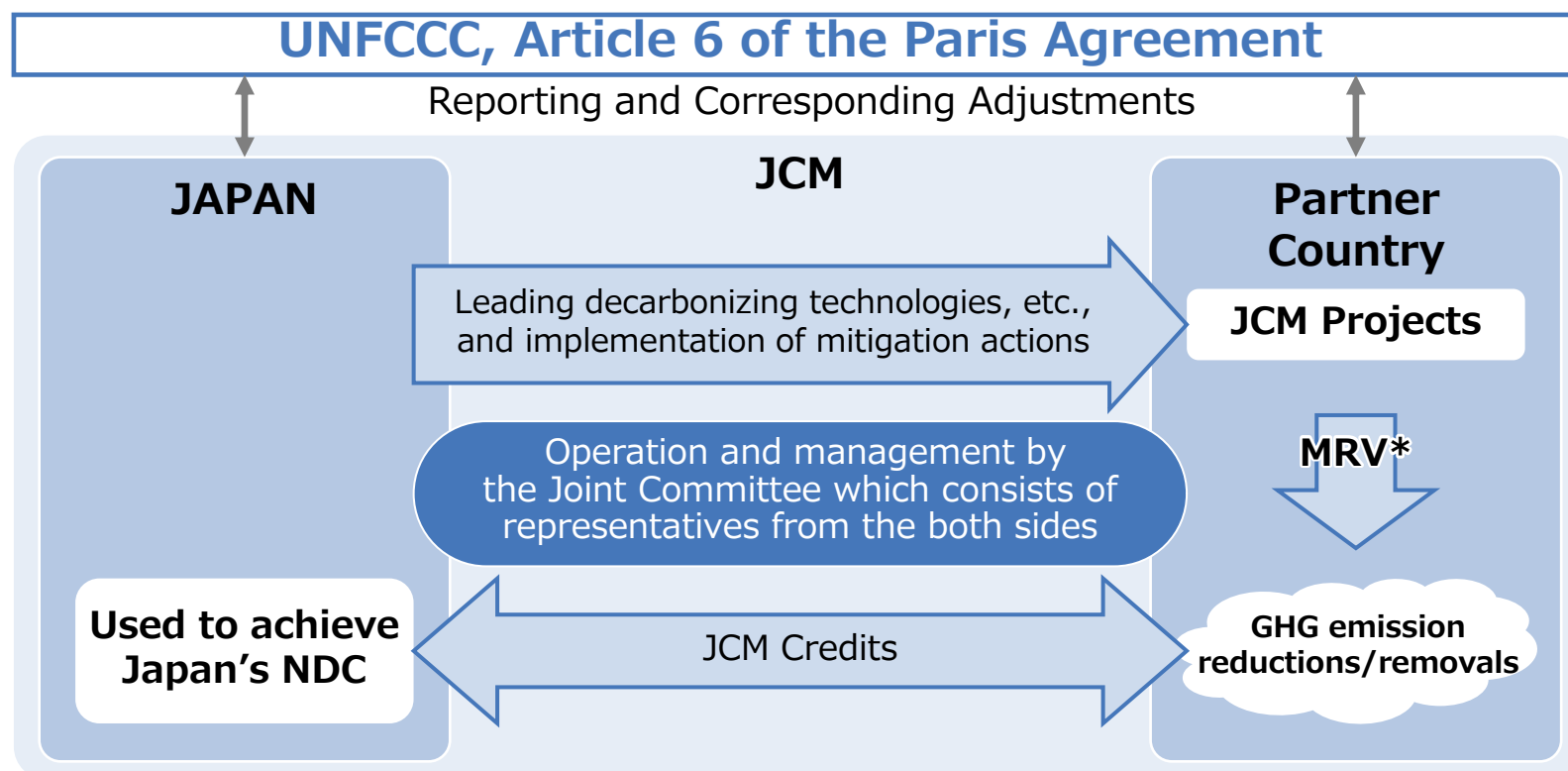
Basic Scheme & Recent Development of the Joint Crediting Mechanism (JCM)

February 27th, 2025

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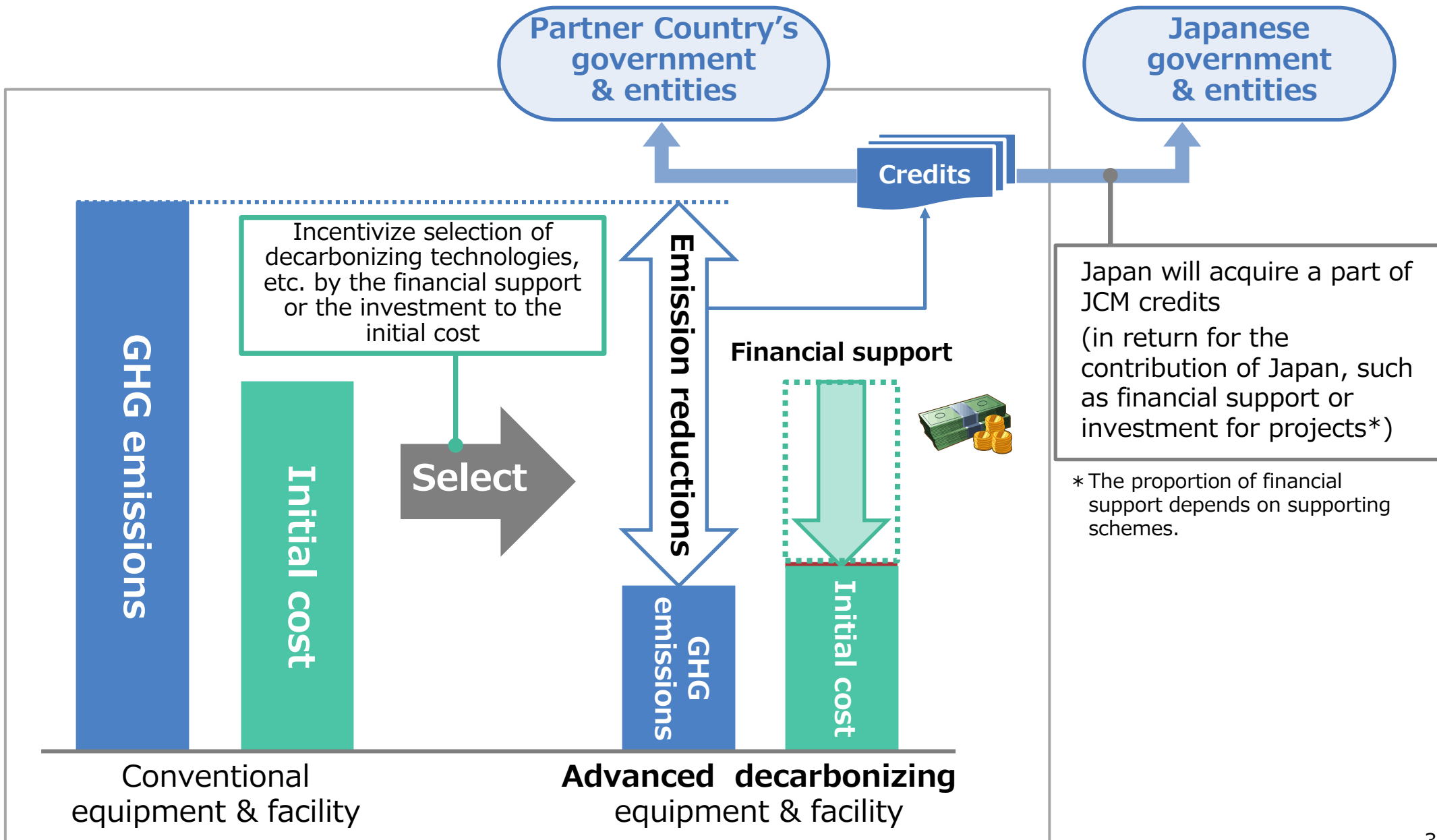
Basic Concept of the JCM

- Facilitate diffusion of leading decarbonizing technologies and infrastructure, etc., through investment by Japanese entities, thereby contributing to GHG emission reductions or removals and sustainable development in partner countries.
- Contribute to the achievement of both countries' NDCs while ensuring the avoidance of double counting through corresponding adjustments.
- Implement the JCM consistent with the guidance on cooperative approaches, referred to in Article 6, paragraph 2 of the Paris Agreement.



*measurement, reporting and verification

Contribution from Japan (example)



JCM Partner Countries (29 countries)



Mongolia
Jan. 8, 2013 (Ulaanbaatar)



Bangladesh
Mar. 19, 2013 (Dhaka)



Ethiopia
May. 27, 2013 (Addis Ababa)



Kenya
Jun. 12, 2013 (Nairobi)



Maldives
Jun. 29, 2013 (Okinawa)



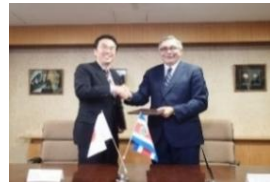
Viet Nam
Jul. 2, 2013 (Hanoi)



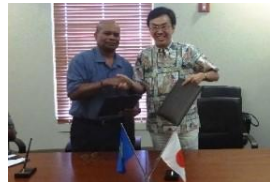
Lao PDR
Aug. 7, 2013 (Vientiane)



Indonesia
Aug. 26, 2013 (Jakarta)



Costa Rica
Dec. 9, 2013 (Tokyo)



Palau
Jan. 13, 2014 (Ngerulmud)



Cambodia
Apr. 11, 2014 (Phnom Penh)



Mexico
Jul. 25, 2014 (Mexico City)



Saudi Arabia
May. 13, 2015



Chile
May. 26, 2015 (Santiago)



Myanmar
Sep. 16, 2015 (Nay Pyi Taw)



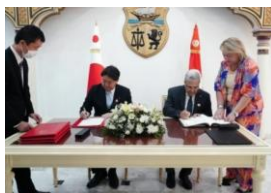
Thailand
Nov. 19, 2015 (Tokyo)



Philippines
Jan. 12, 2017 (Manila)



Senegal
Aug. 25, 2022 (Dakar)



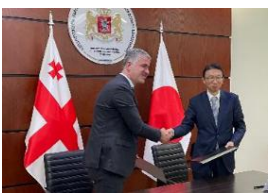
Tunisia
Aug. 26, 2022 (Tunis)



Azerbaijan
Sept. 5, 2022 (Baku)



Moldova
Sept. 6, 2022 (Chisinau)



Georgia
Sept. 13, 2022 (Tbilisi)



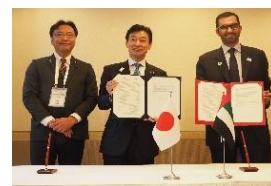
Sri Lanka
Oct. 10, 2022 (Colombo)



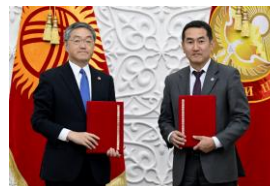
Uzbekistan
Oct. 25, 2022 (Tashkent)



Papua New Guinea
Nov. 18, 2022 (Sharm-el-Sheikh)



United Arab Emirates
April. 16, 2023 (Sapporo)



Kyrgyz Republic
July. 6, 2023 (Bishkek)

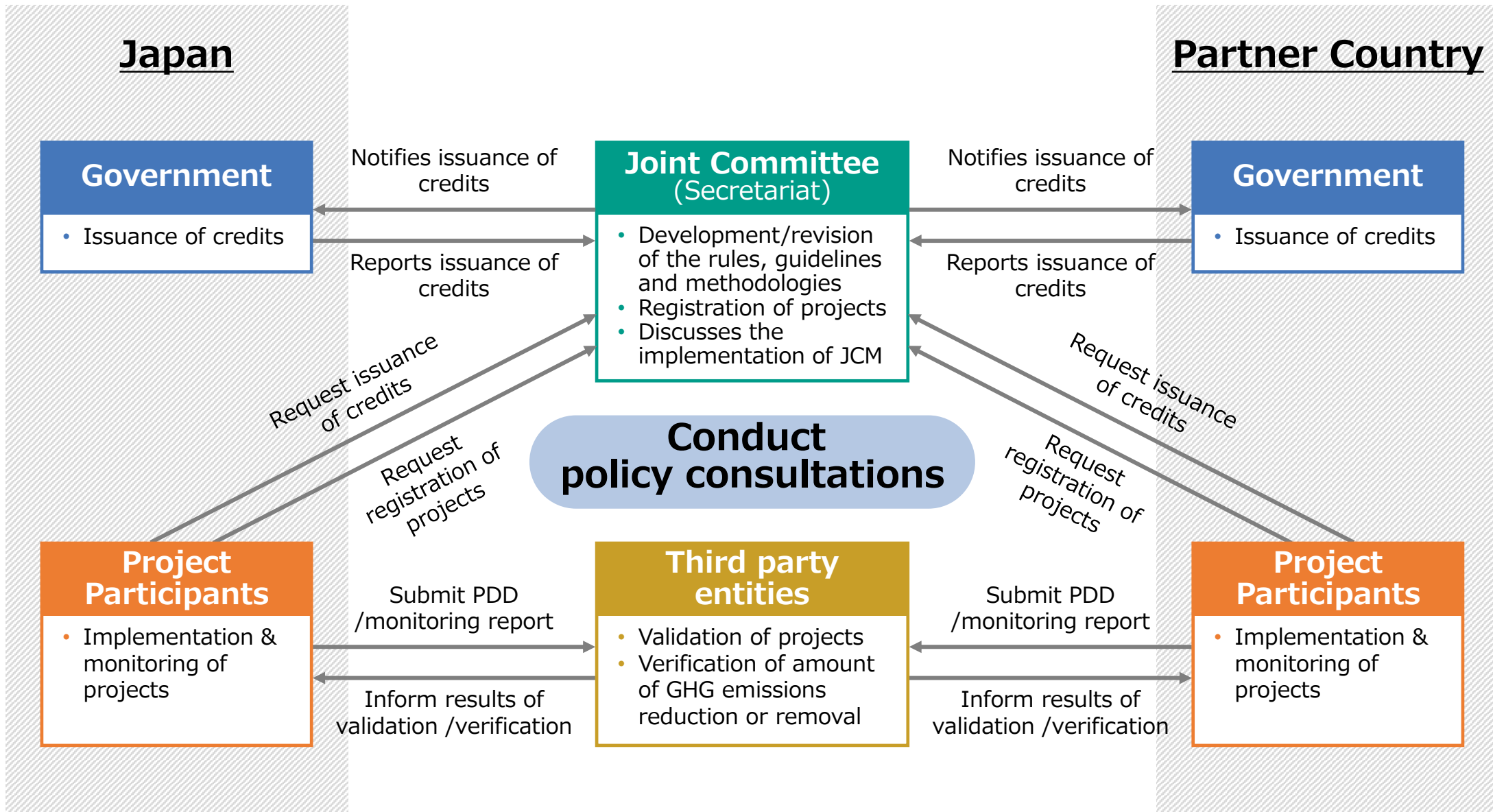


Kazakhstan
Oct. 30, 2023 (Astana)



Ukraine
Feb. 19, 2024 (Tokyo)

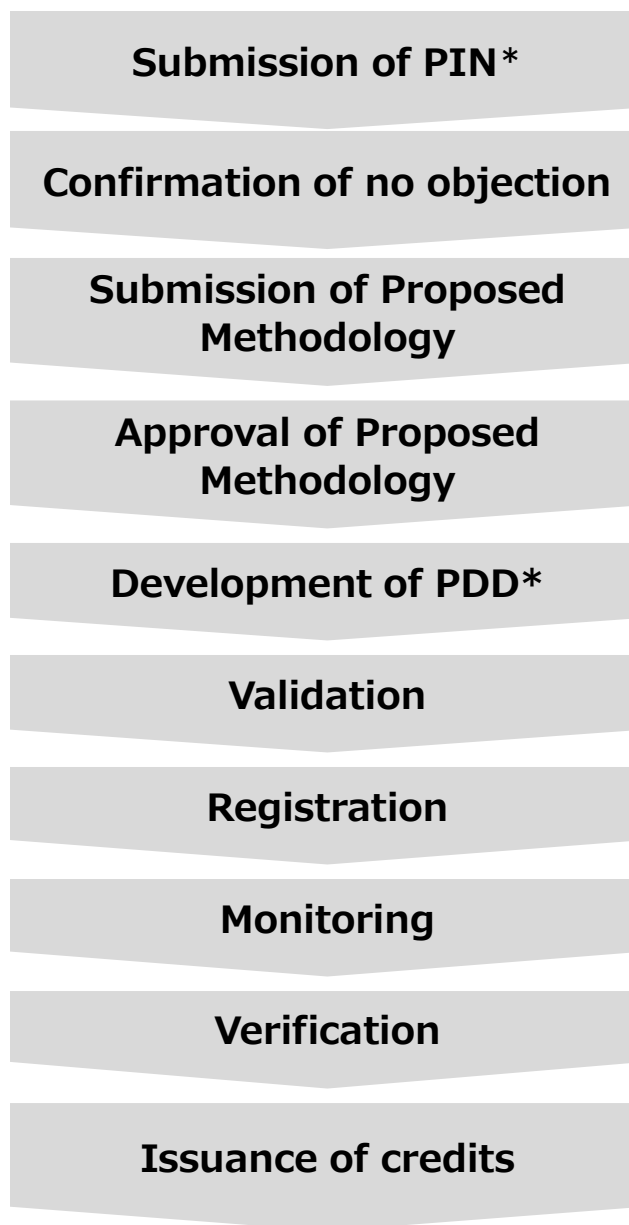
Scheme of the JCM



Project Cycle of the JCM



Can be conducted by the same TPE
Can be conducted simultaneously



<Terminology>

- **PIN (Project Idea Note)**: A document used to explain the outline of the project to the partner country and confirm whether there is an objection.
- **PDD (Project Design Document)**: A document that includes monitoring methods and estimated emission reductions. Required for project registration.

<Note>

For the latest information on JCM rules and guidelines, including the PIN procedures adopted with each Partner Country, please refer to each partner country page on the JCM website.

Japan's Nationally Determined Contribution (NDC)

(Decided on October 22, 2021)

Japan's NDC

Japan aims to reduce its greenhouse gas emissions by 46 percent in fiscal year 2030 from its fiscal year 2013 levels, setting an ambitious target which is aligned with the long-term goal of achieving net-zero by 2050. Furthermore, Japan will continue strenuous efforts in its challenge to meet the lofty goal of cutting its emission by 50 percent.

Description about the JCM

Japan's Greenhouse Gas Emission Reduction Target

- Japan aims to contribute to international emission reductions and removals at the level of a cumulative total of approximately 100 million t-CO₂ by fiscal year 2030 through public-private collaborations. Japan will appropriately count the acquired credits to achieve its NDC.

Information to facilitate clarity, transparency and understanding

- Japan will establish and implement the Joint Crediting Mechanism (JCM) in order to quantitatively evaluate contributions of Japan to greenhouse gas emission reductions and removals which are achieved through the diffusion of, among others, leading decarbonizing technologies, products, systems, services and infrastructures as well as through the implementation of measures in developing countries and others, and in order to use such contributions to achieve Japan's NDC. By doing so, through public-private collaborations, Japan aims to secure accumulated emission reductions and removals at the level of approximately 100 million t-CO₂ by fiscal year 2030. Japan will appropriately count the acquired credits to achieve its NDC.
- With regards to the JCM which Japan has initiated to establish, Japan secures environmental integrity and the avoidance of double-counting in line with the international rules including the Paris Agreement. Also, based on its experience in the JCM, Japan intends to lead international discussions, thereby contributing to the development of appropriate international rules for the use of market mechanism.

Japan's New Nationally Determined Contribution (NDC)

(Decided on February 18, 2025)

Japan's NDC (Provisional Translation)

Japan aims to reduce its greenhouse gas emissions by 60 percent and 73% respectively from its fiscal year 2013 level in fiscal year 2035 and fiscal year 2040, in line with the global 1.5°C target and as an ambitious goal on a linear pathway to achieving net zero by 2050.

Description about the JCM (Provisional Translation)

- The JCM will be established and implemented to quantitatively evaluate Japan's contribution to greenhouse gas emission reductions and removals achieved through the dissemination of decarbonization technologies, products, systems, services, infrastructure, etc., and the implementation of measures in countries of the global south, etc., as well as to utilize it for the achievement of Japan's NDC. Through these efforts, the goal is to secure international emission reductions and removals at the level of a cumulative total of approximately 100 million t-CO₂ by fiscal year 2030 and around 200 million t-CO₂ by fiscal year 2040 through public-private partnerships. Japan will appropriately count the acquired credits to achieve its NDC.
- With regards to the JCM which Japan has initiated to establish, Japan secures environmental integrity and the avoidance of double-counting in line with the international rules including the Paris Agreement. Also, based on its experience gained through the establishment and implementation of the JCM, Japan will participate in international discussions on Article 6 (market mechanisms) of the Paris Agreement, and lead improvements through the establishment of appropriate international rules for utilizing market mechanisms and their implementation.
- At the same time, Japan will also actively work to promote international contributions to decarbonization and resilience improvement in countries of the Global South, etc., from policy and institutional development to efforts in each sector and city, and the dissemination of technology.

Future policy regarding the expansion of the JCM

Plan for Global Warming Countermeasures (Cabinet Decision on February 18, 2025) (provisional Translation)

- (...) In order to promote mitigation measures using the JCM, the first step is to work on expanding the scope, scale, and routes of project development sourcing. In addition to the energy conservation, renewable energy and waste management sectors, where many projects have been implemented since the scheme was launched, Japan will also work to expand into a wide range of other sectors and areas, including non-energy sectors such as agriculture and peatland management, CCS, and greenhouse gas removal as well as reduction, and will give priority to identifying and developing projects with particularly high reduction potential. To this end, the government will also actively support the expansion and acceleration of JCM projects, which are mainly financed by private funds, in collaboration with a wide range of public and private organizations, etc., while also providing technical and MRV support. The government will also strategically promote the development of new projects in partner countries, taking into account their reduction potential, etc.

GX2040 Vision (Cabinet decision on February 18, 2025) (provisional translation)

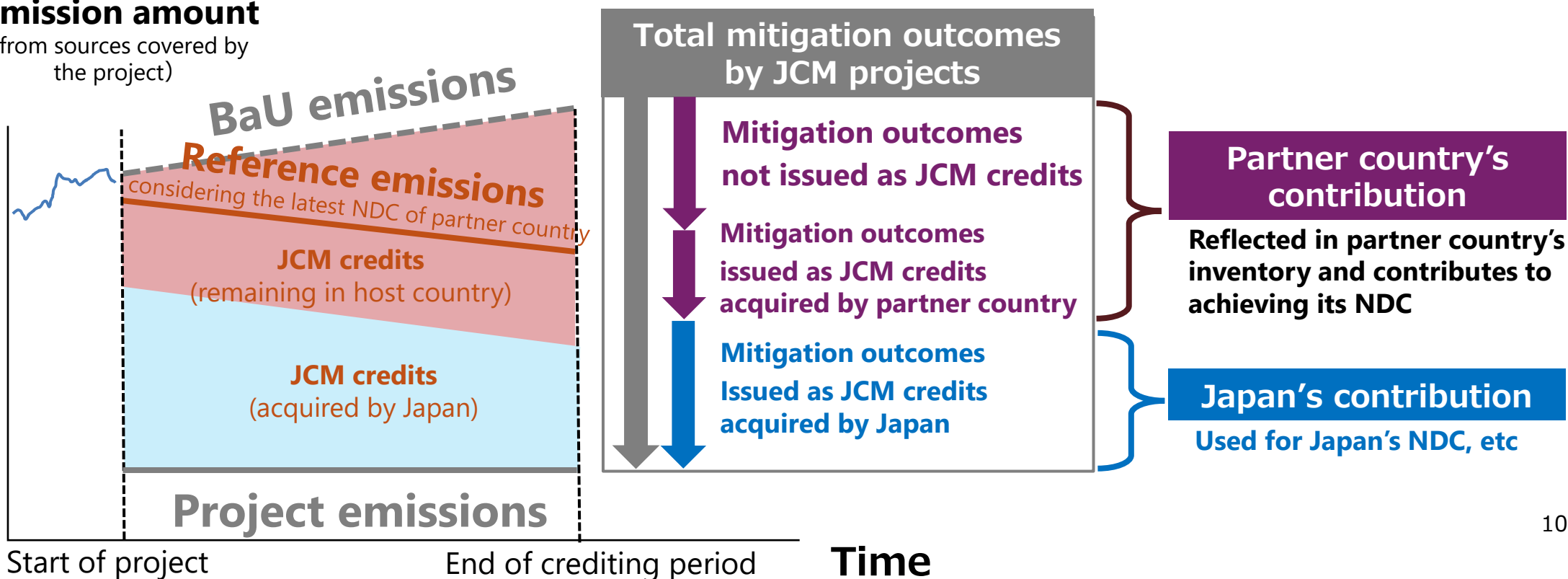
- In addition, the Joint Crediting Mechanism (JCM) is also important for promoting decarbonization in Asia and around the world. In addition to the energy conservation, renewable energy and waste management sectors, where many projects have been implemented since the launch of the mechanism, we will also work to expand the scope of the JCM to include a wide range of other sectors and areas, such as non-energy-related greenhouse gas emissions reduction in the agricultural and peatland management, and carbon capture and storage (CCS). In particular, we will prioritize the discovery and formation of projects with large reduction potential, while also obtaining the active cooperation of industry. To this end, in addition to government funding support, Japan will strategically promote projects centered on private funding, strengthen implementation systems, expand JCM partner countries, work with the ADB and the European Bank for Reconstruction and Development (EBRD), etc., and consider the development of systems to strengthen credit trading, etc. In addition, Japan will promote the calculation and reporting of greenhouse gases in business activities, and accelerate the provision of regional experience and know-how through inter-city cooperation.

Evaluation & crediting of mitigation outcomes under the JCM

- Mitigation outcomes issued as **JCM credits** are the **difference between project emissions and reference emissions** that are established considering the **latest NDC of partner country**.
- **Total mitigation outcomes by JCM projects**, the difference between business-as-usual (BaU) and project emissions, **consist of mitigation outcomes that is NOT issued as JCM credits, mitigation outcomes issued as JCM credits acquired by partner countries and Japan**. All of them **contribute to achieving their NDCs**.
- **Allocation of total mitigation outcomes for each government and participant** will be consulted bilaterally, taking into consideration their **respective contributions to the JCM project**. Such contribution includes **private and public financial contributions, in-kind contributions, such as technical and operational contributions**.

Emission amount

(from sources covered by the project)



Overview of Japan's support for the JCM partner countries

| | Programme | Type of support |
|--|--|--|
| Ministry of the Environment | Finance Programme for JCM Model Projects* | Subsidy |
| | Finance Programme for F-gas Recovery and Destruction Model Projects* | Subsidy |
| | Japan Fund for the JCM (JF JCM) - managed by ADB | Grant |
| | JCM support programme by UNIDO* | Grant for projects, technical cooperation |
| | Demonstration Programme for Application of New Decarbonizing Technology* | Subsidy |
| | Project development/capacity building/ MRV support | Technical cooperation |
| Ministry of Economy, Trade and Industry | JCM Feasibility Study | Technical cooperation |
| | JCM Demonstration Programme | Government-commissioned project |
| | New JCM methodologies development study JCM Crediting support / MRV application study | Technical cooperation |
| Ministry of Agriculture, Forestry and Fisheries | Development of MRV for JCM projects in Agriculture -implemented by ADB | Technical cooperation |
| | Field studies for JCM REDD+ | Government-commissioned project |

* These programmes can support projects implemented by government-owned companies but not those implemented by the government itself.

METI's support for the JCM partner countries

- METI supports the introduction of **advanced decarbonizing technologies through Demonstration Projects** which contribute to the decarbonization of the JCM partner countries.
- The project cost burdened by Japanese side is **100% supported by Japanese government (METI/NEDO).**

Examples of past projects



Optimization in petroleum refining plant, Yokogawa Electric Corp. Indonesia



Energy-saving of mobile communications base transceiver stations, KDDI Corp. Indonesia

Total: 11 projects in 6 countries (As of July 2023)

JCM Feasibility Study by METI



Scope:

- Consider basic elements of the demonstration (technology, project site, stakeholders, etc.)
- Establish the basis of JCM methodology for quantification of the GHG emission reduction
- Study the possibility of dissemination of the introduced technology
- Project cost: 15 million JPY (approx. 116 thousand USD) per study

Project period: Up to 1 year

Assumed technical areas: Energy efficiency with IoT, EMS, Renewable energy, CCS/CCUS, Hydrogen/Ammonia, etc.

JCM Demonstration Program by NEDO (*)



Scope:

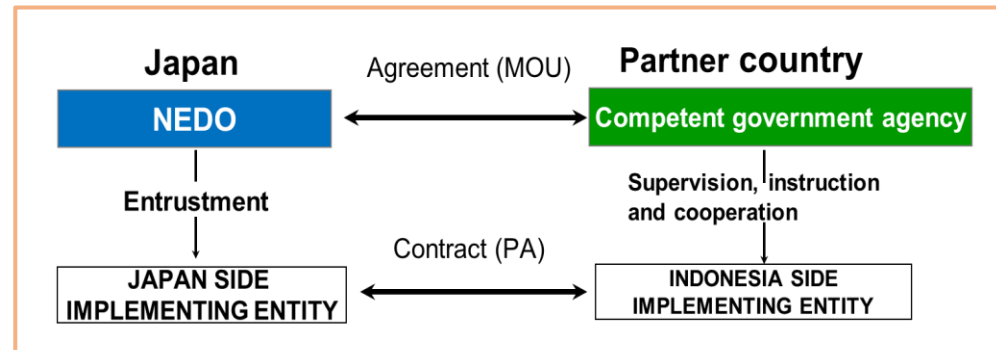
Demonstrate and verify the effectiveness of advanced decarbonizing technology:

- Introduction of relevant facilities and systems, and conduct demonstration
- Quantification of GHG emission reduction effectiveness
- JCM procedure toward issuance of JCM credits
- Budget for FY 2024: 0.7 billion JPY (approx. 4.7 million USD)

Project period: Pre-demonstration stage: up to 1 year

Demonstration stage: up to 3 year

Follow-Up Project stage: up to 2 year



* NEDO = New Energy and Industrial Technology Development Organization

Feasibility Studies and Detailed/Secondary Feasibility Study (FY2024)

Kazakhstan

- JCM Feasibility Study on the Introduction of a Large-scale Onshore Wind Power Project in Kazakhstan (MITSUI & CO., LTD.)

Moldova

- ★ Demonstration Project of Methane Fermentation System for Utilization of Waste Energy at Ethanol Brewery Plant (SDG Impact Japan Inc.)

Georgia

- JCM Feasibility Study on the Utilization of Waste-Derived Fuel (Cleansystem CO., LTD.)

Thailand

- JCM Feasibility Study on Energy-Efficient High-Definition Flexographic Printing Technology in Thailand (Asahi Kasei Corporation)
- JCM Feasibility Study on Biochar Production and Utilization in Thailand (JAPAN CARBON FRONTIER ORGANIZATION)

Vietnam:

- ★ The Demonstration of Producing Green Hydrogen Utilizing Surplus Electricity from Renewable Energy and Providing System Solutions (OBAYASHI CORPORATION)

Uzbekistan

- JCM Feasibility Study on large-scale onshore wind power project in Uzbekistan (Sojitz Corporation)

Papua New Guinea

- JCM Feasibility Study on Introduction of Hybrid Solar Power System in Papua New Guinea (Sustainable Holdings Co., Ltd.)

India

- JCM Feasibility Study on the Introduction of Distributed Power Generation Systems Utilizing Methane Gas Derived from Cow Dung in India (Fine Eco Solution Co., Ltd.)
- JCM Feasibility Study on Large-scale Introduction of Waste to Steam in Petrochemical Industry and Regional Transportation System of Urban Waste in India (EX Research Institute Ltd.)
- JCM Feasibility Study on Introduction of "Second-Generation Bioethanol Production Technology" in India (NIPPON STEEL ENGINEERING CO., LTD.)
- JCM Feasibility Study on Compressed Bio Gas Technology in India (Mitsubishi Corporation India Pvt. Ltd.)

Costa Rica

- JCM Feasibility Study on the Introduction of Battery Locomotives for Cargo Railway in Costa Rica (Nippon Koei Co., Ltd.)

Chile

- JCM Feasibility Study on the Introduction of Solar Thermal Power Generation in the Mining Industry in Chile (AGC Inc)

Philippines

- JCM Feasibility Study on Biomass Power Generation Utilizing Agricultural Residues in the Philippines (Kubota Corporation)
- JCM Feasibility Study on the Installation of Solar Panels and Batteries and Optimal Power Control Technology for Wireless Base Stations in the Philippines (NTT DOCOMO, INC)

Brazil

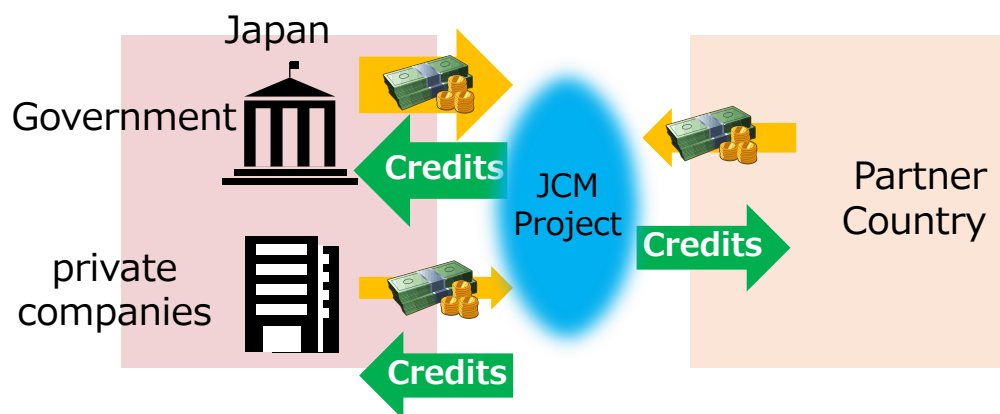
- JCM Feasibility Study on Biomass Power Generation Project in Brazil Led by Private Sector (NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.)

17 projects (12 countries)
 Projects with "●" are Feasibility Studies by METI
 Projects with "●★" are Detailed/Secondary Feasibility Study by NEDO

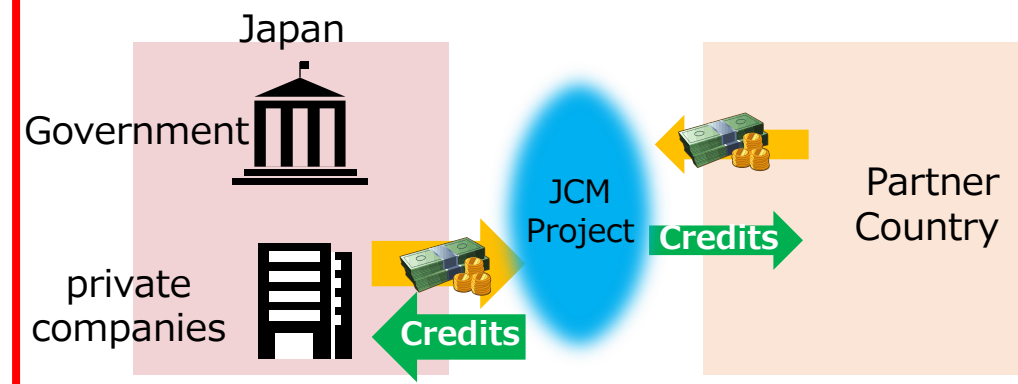
Private-Sector JCM projects

- There is a need to promote the formation of JCM projects invested and implemented by private companies without any governmental financial supports for the purpose of obtaining JCM credits (private sector JCM), in light of the growing interest in the use of JCM credits for private-sector companies' own purposes.
- Formulated "Guidance on the development of Private-Sector JCM" in March 2023 and revised it in March 2024.
- In the guidance, the following two processes were introduced:
 - Making an advance inquiry to the partner countries on the "Project Idea Note (PIN)" which includes the project contents and credit allocation plan
 - Confirming whether there are any objections on the PIN at the Joint Committee prior to the implementation of a JCM project.

<JCM projects with Japanese governmental support>

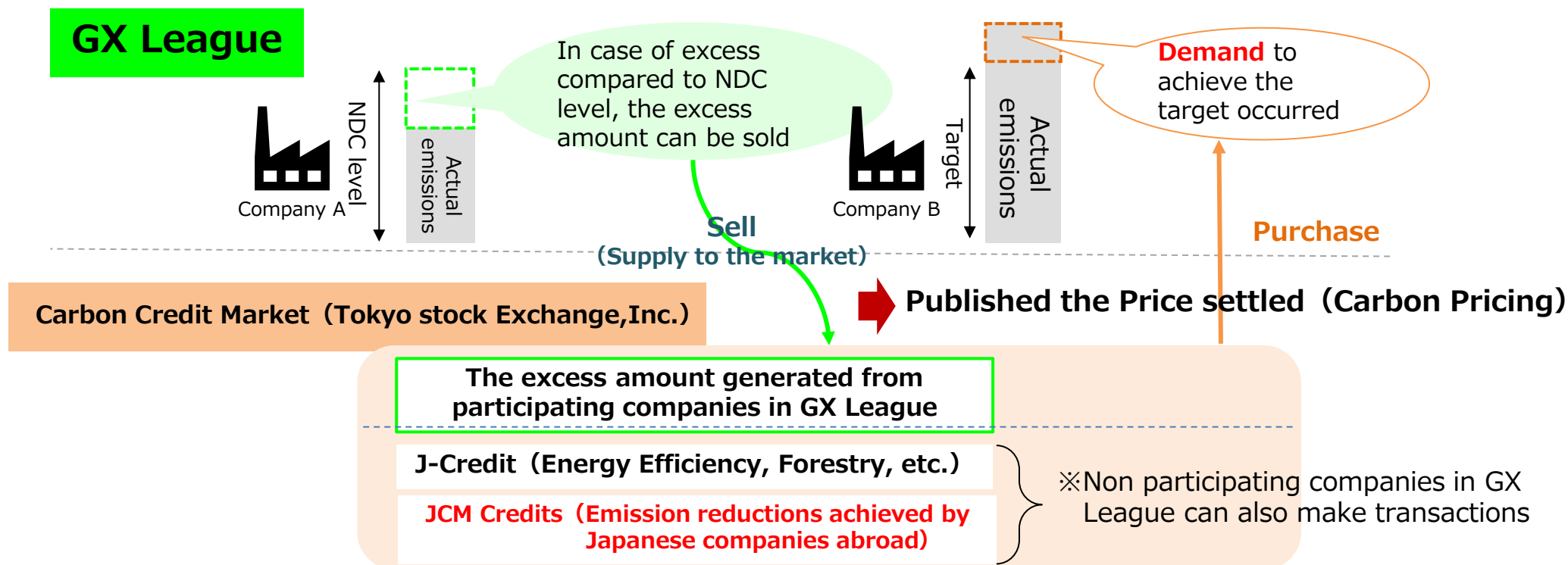


<Private-Sector JCM projects>



Potential use of JCM credits

- JCM credits acquired by companies through private JCM can be utilized for the purpose of carbon offsetting.
 - 1) The domestic calculation, reporting, and publication system (**SHK system**)
 - 2) Use for the achievement of companies' **voluntary targets in the GX League**
 - 3) **Carbon offsetting**
- In the GX League, participating companies are supposed to be engaged in emission trading in the **Carbon Credit Market** under Tokyo Stock Exchange, Inc in order to achieve their targets. Through trading JCM credits in the Carbon Credit Market, pricing and monetization of the JCM credits will be expected.



Status of Rules & Guidelines Update (Paris Agreement Article 6 Compliance)

Tunisia



- June 20, 2023 First meeting of the Joint Committee. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Sri Lanka



- October 13, 2023 First meeting of the Joint Committee. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Georgia



- January 23, 2024 First meeting of the Joint Committee. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Senegal



- May 23, 2024 First meeting of the Joint Committee. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Thailand



- July 8, 2024 The [Memorandum of Cooperation \(MoC\) and the Rules of Implementation \(RoI\)](#) were revised and signed in accordance with the establishment of the Thai domestic system.
- September 23, 2024 6th meeting of the Joint Committee. [Adopted updates to Rules & Guidelines \(Article 6 compliance\)](#).

Moldova



- September 25, 2024 First meeting of the Joint Committee. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Indonesia



- December 18, 2024 Tenth meeting of the Joint Committee. [Adopted updates to Rules & Guidelines \(Article 6 compliance\)](#). [Adopted CCS/CCUS guidelines](#).

Kazakhstan



- January 28, 2025 First meeting of the Joint Committee held. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Uzbekistan



- February 26, 2025 First meeting of the Joint Committee held. [Adopted Rules & Guidelines \(Article 6 correspondence\)](#).

Adoption of CCS/CCUS Guidelines in Indonesia

- METI conducted a feasibility study to see whether CCS projects overseas can be made into JCM projects between 2020 and 2022.
- Additional rules for implementing CCS projects in the JCM were studied by domestic experts and discussed with the Indonesian side.
- In November 2024, the Ministry of Environment of Japan and the Ministry of Environment and Forestry of Indonesia signed a mutual recognition arrangement on JCM. (*1)
- The guidelines for CCS/CCUS were adopted by the Joint Committee in December 2024. (*2)

<Summary of items added to the Rules & Guidelines for CCS project implementation>

| Items added | Summary |
|---|--|
| 1. Crediting Period | Added the credit period for CCS projects. (the crediting period for CCS and CCUS is from the start of injection to the end of injection) |
| 2. Participants' ability to monitor injected CO2 | Added the requirement that project participants have access to the project site and data in order to carry out monitoring activities. |
| 3. Addition of a new sectoral scope | Clarified that CCS and CCUS *is included in the sectoral scope. |
| 4. Eligible project | Clearly state that CCS and CCUS are included. |
| 5. Net emission reduction for CCS and CCUS Projects | Added "3 key concepts" to ensure net emission reductions (calculating the amount of emission reductions to be credited more conservatively than the actual reductions). 1) Establish reference emissions lower than BaU. 2) Establish project emissions higher than actual emissions. 3) Multiply emissions reduction by discount factor. |
| 6. Project Lifecycle and Methodology | Clarified that the project termination period is divided into the termination preparatory period and the post-project termination period. The criteria for project completion are set by the methodology. Also clarified that monitoring is carried out in accordance with the laws and regulations of the host country. |
| 7. GHG sources of CCS and CCUS projects | Presented the sources and types of GHG emissions. GHG emissions from fossil fuel combustion, electricity consumption associated with project activities, and leakage from project facilities may included. Emissions from combustion of fossil fuels produced by using EOR and EGR are not included. |
| 8. Project termination period monitoring | Provided the criteria for project termination as well as requirements for project termination preparatory monitoring and post termination monitoring. |
| 9. Response to risk of reversal | Project participants subtract a portion(in principle 3%) of credits from issued JCM credits as a reserve. Provided the processes to be followed in response to leakage after the completion of CO2 injection. |
| 10. Reference documents | Referred ISO 27914, which provides recommendations for the effective storage of CO2 in underground reservoirs, and ISO 27916, which quantifies the CO2 to be stored in CO2-EOR projects, as both being international standards for CCS. |

1 https://www.env.go.jp/press/press_04057.html (Ministry of the Environment HP)

2 https://www.meti.go.jp/policy/energy_environment/global_warming/jcm/id_jc10.html (Ministry of Economy, Trade and Industry HP)

Designation of Implementation Entity to conduct operations related to the issuance and management of JCM credits

- At present, the government and multiple businesses share the workload according to the nature of the JCM operations, but from next year (April) onwards, a system will be put in place to have the designated implementation entity carry out all the work in a unified manner, thereby streamlining the operations.
 - By having the designated implementation entity carry out all related operations in one go, the cost of domestic liaison and coordination will be reduced, and overall work efficiency will be improved.
 - Compared to the current system of outsourcing work on a fiscal year basis, it will be possible to secure a medium-to long-term, stable implementation system that spans multiple fiscal years.
 - It will be possible to centrally manage information on partner countries and businesses for each project.
 - The government will be able to focus on policy aspects such as promoting the use of the JCM and expanding the number of partner countries.

<Current Problems>

- ① Partner countries: increased from 17 (summer 2022) to 29. Other countries under discussion (with high expectations from domestic companies).
- ② Increase in the number of projects: More than 250 JCM-funded projects underway
- ③ Need to accelerate securing emission reductions and absorption through the JCM

Need to strengthen the implementation system as soon as possible to ensure steady implementation of the JCM

<The roles on the government and the designated implementation entity>

Designated Implementation Entity

- Centralized administration of most of the operations related to the issuance and management of JCM credits, except for decision-making by the Joint Committee.

Government of Japan

- Discussions with new partners for expansion and structuring of large-scale projects
- Various policy decisions, resolutions at joint committee meetings, etc.

今をつなぐ、未来をひらく。地球室

present for future

