Introduction of the Joint Crediting Mechanism (JCM) & Financing Programme for JCM Model Projects

JCM

THE JOINT CREDITING MECHANISM

2023-2024

Published in August 2023

Expanding JCM Partner Countries

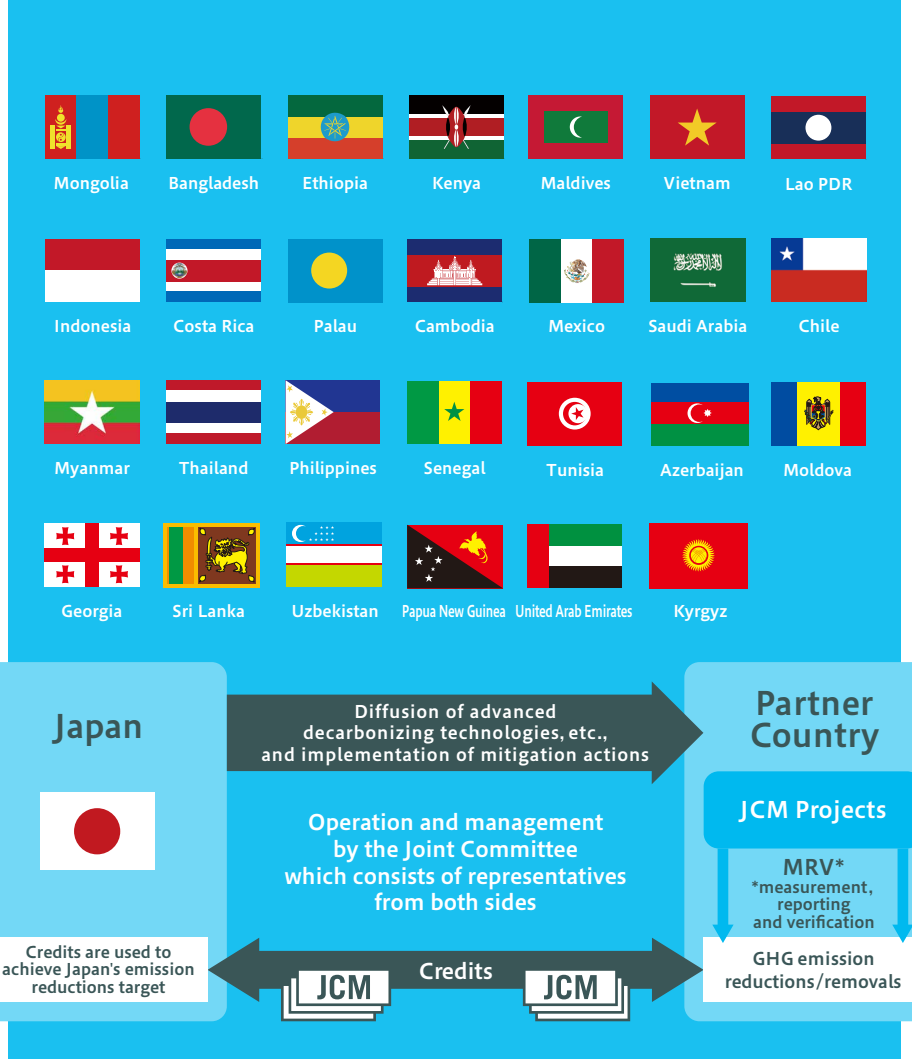
Japan, aiming to facilitate global GHG emission reduction and removal, implements the Joint Crediting Mechanism (JCM) as a scheme for decarbonizing technology diffusion and implementation measures to respond to challenges in partner countries in a flexible and swift manner.
The use of carbon market mechanisms, including the JCM, is articulated under Article 6 of the Paris Agreement. The market mechanism under Article 6, including the JCM, is not only for GHG emission reduction, but also for the sustainable development of the partner countries.
Japan has established partnerships with 27 countries (as of August 31st, 2023) and continues to communicate with other developing countries.

Basic Concept of the JCM

- Facilitating diffusion of advanced decarbonizing technologies, products, systems, services and infrastructure as well as implementing mitigation actions, and contributing to the sustainable development of developing countries
- Appropriately evaluating contributions from Japan to GHG emission reductions and removals in a quantitative manner and using them to achieve Japan and partner country's NDC emission reduction targets
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions and removals

Position of the JCM in the Plan for Global Warming Countermeasures
(Cabinet Decision, October 2021)

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.



JCM Global Partnership

JCM Global Partnership aims to strengthen international partnerships towards decarbonization by facilitating mutual communication among various entities such as JCM partner countries, international organizations, local governments, private companies and financial institutions for decarbonizing project development through the JCM, the Article 6 of the Paris Agreement (market mechanisms), and achievement of SDGs.

JCM Global Partnership

Three Pillars of Activities

http://carbon-markets.env.go.jp/eng/jcmgp/index.html

JCM × Carbon Neutral Project
Promoting utilization of financing schemes and business matchings to formulate JCM projects through collaboration among various stakeholders

JCM × Article 6 (Market mechanisms)
Sharing how the JCM is being implemented as a program under Article 6 of the Paris Agreement with actual cases

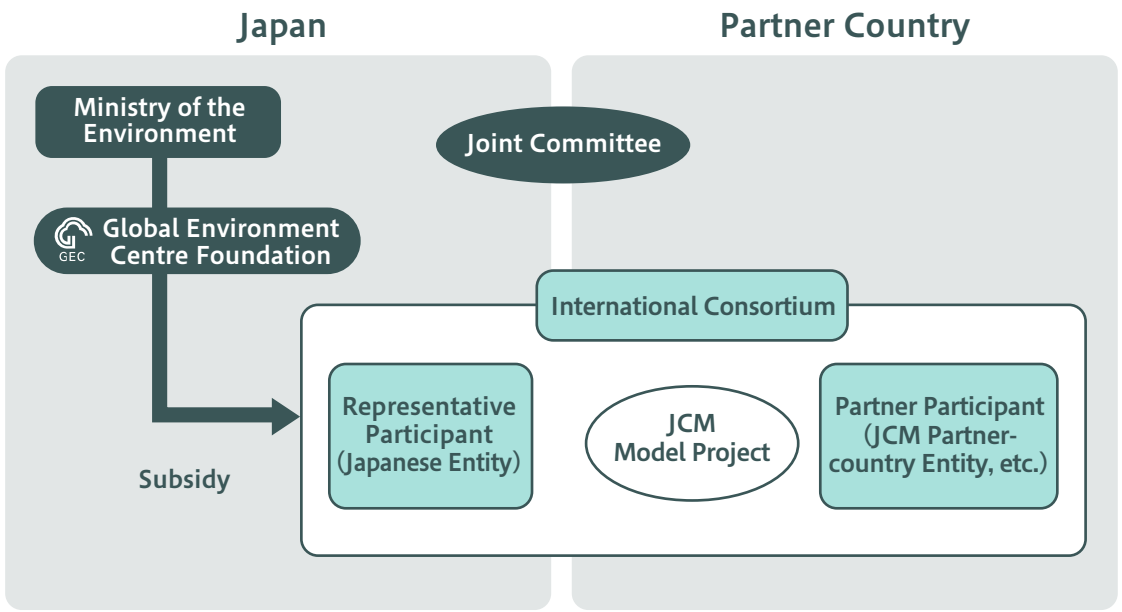
JCM × SDGs
Sharing relevant information of JCM's contribution to SDGs

Overview of Japan's Support for the JCM Partner Countries

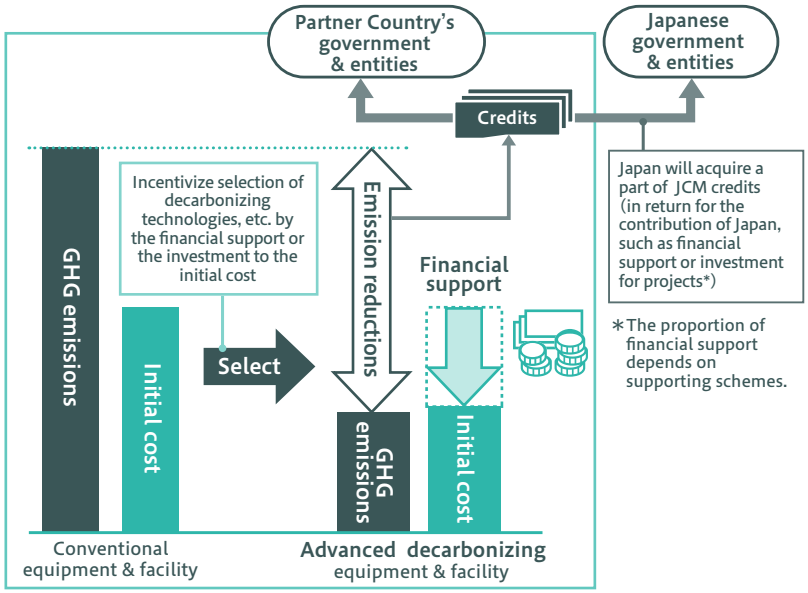
Ministry	Programme	Type of support
Ministry of the Environment	Finance Programme for JCM Model Projects*1	Subsidy
	Finance Programme for F-gas Recovery and Destruction Model Projects*1 (See page 14)	Subsidy
	Japan Fund for the JCM (JFJCM) - managed by ADB*2 (See page 15)	Grant
	JCM Support Programme by UNIDO*1*3 (See page 16)	Grant for projects, technical cooperation
	Project Development/ Capacity Building/MRV Support	Technical cooperation
Ministry of Economy, Trade and Industry	JCM Feasibility Study	Technical cooperation
	JCM Demonstration Projects	Government-commissioned project
Forestry Agency	Field Studies for JCM REDD+	Government-commissioned project

*1 These programmes can support projects implemented by government-owned companies but not those implemented by the government itself.
*2 JFJCM : ADB (Asian Development Bank) Trust Fund/Japan Fund for Joint Crediting Mechanism, *3 UNIDO : United Nations Industrial Development Organization

Financing Programme for JCM Model Projects



Contribution from Japan（example）



JCM Model Projects Flow

Call for Proposal

Evaluation of proposals
(Proposal review & interview with applicants, Inquiry of PIN*1 to partner countries)
Selection of model projects
Documentation briefing for the notice of contract of financing

Review of application documents*2
Submission of application
Notice of contract of financing

Model Projects Start

Implementation of model projects
- Single year project & Last year of 2 or 3-year project ··· Submission of final reports & Onsite inspection
- 1st year & midterm of 2 or 3-year project ··· Submission of midterm reports & Midterm inspection

Inspection
- Single year project & Last year of 2 or 3-year project ··· Disbursement of financial support
- 1st year & midterm of 2 or 3-year project ··· Disbursement of part of financial support

Disbursement of financial support

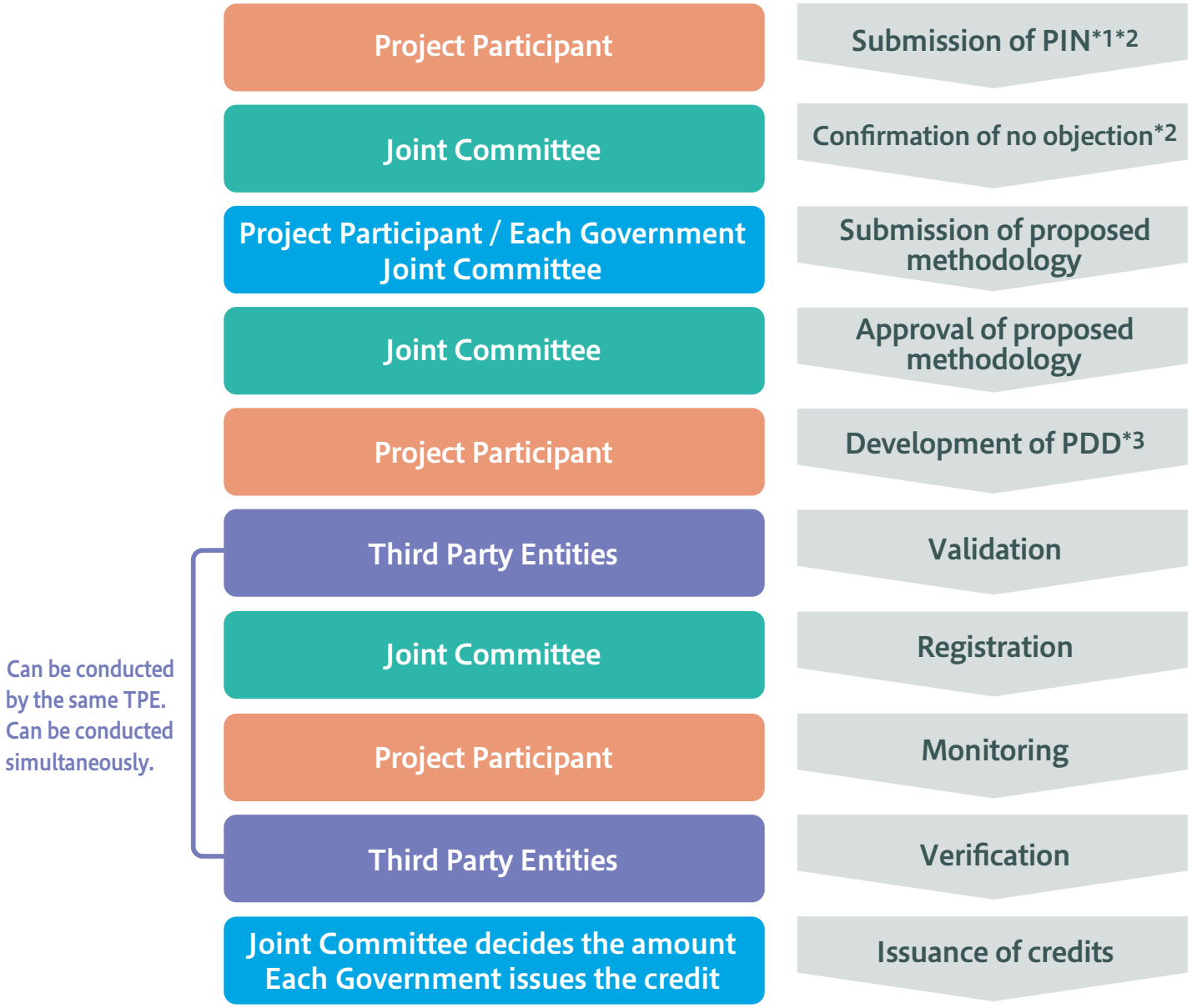
MRV

Measurement → **Reporting** → **Verification** → **Credit Issuance**

Representative Participant of JCM Model Projects shall conduct measurement, reporting and verification (MRV) of the GHG emission reductions realized after installation and commissioning of the facilities/equipment for the issuance of JCM credits.

*1 PIN: The Project Idea Note is a proposal document shared with a partner country prior to the selection as a JCM Model Project to inquire if there is an objection.
*2 Submission of application should be done within 30 days after the selection of model projects so that the notice of contract of financing can be established within 60 days after the selection.

Project Cycle of the JCM



***1 PIN (Project Idea Note):**
A document used to explain the outline of the project to the partner country and confirm no objection.

***3 PDD (Project Design Document):**
A document that includes monitoring methods and estimated emission reductions. Required for project registration.

JCM Home Page

URL: https://www.jcm.go.jp/

< Contents >

- General information page
- Individual JCM partner countries-Japan page

< Function >

- Information sharing to the public, e.g.,
  - JC decision
  - JCM rules and guidelines
  - methodologies and projects
  - issuance of JCM credits
  - call for public inputs/ comment
  - status of TPEs, etc.
- Internal information sharing for the JC members, e.g.,
  - file sharing for electronic decisions by the JC

*2 For the latest information on JCM rules and guidelines, including the PIN procedures adopted by each Partner Country government, please confirm each partner country page on the JCM home page.

Examples of JCM Model Projects by Technology

Energy Efficiency

Air Cooled Chiller (Vietnam)
Hitachi-Johnson Controls Air Conditioning, Inc.

Thermal Oil Heater System (Indonesia)
Fumakilla Limited

Autoclave (Indonesia)
Otsuka Pharmaceutical Factory, Inc.

Boiler (Thailand)
The Kansai Electric Power Co., Inc.

Energy Efficiency

Once Through Boiler (Thailand)
Osaka Gas Co., Ltd.

LED Lighting (Vietnam)
Endo Lighting Corporation

Effective Use of Energy

Waste Heat Recovery (Myanmar)
Global Engineering Co., Ltd.

Gas Co-generation System & Chiller (Thailand)
The Kansai Electric Power Co., Inc.

Renewable Energy

Binary Geothermal Power Generation (Philippines)
Mitsubishi Heavy Industries, Ltd.

Mini Hydro Power Plant (Indonesia)
Voith Fuji Hydro K.K.

Biomass Boiler (Vietnam)
Daiichi Jitsugyo Co., Ltd.

Biomass Boiler (Vietnam)
Marubeni Corporation

Renewable Energy

Solar Power (Indonesia)
Alamport Inc.

Waste Handling and Disposal

Power Generation with Methane Gas Recovery System (Mexico)
NTT Data Institute of Management Consulting, Inc.

Waste to Energy Plant (Myanmar)
JFE Engineering Corporation

Transportation

CNG-Diesel Hybrid Public Bus (Indonesia)
Hokusan Co., Ltd.

Case Examples of JCM Model Project

1

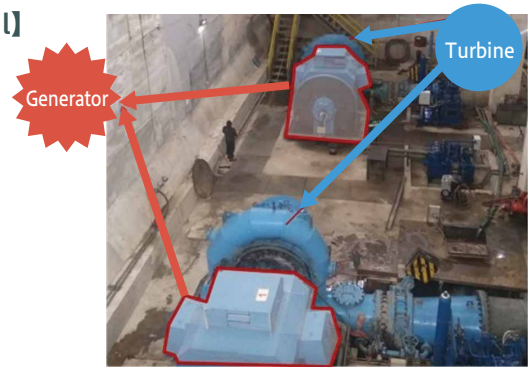
Renewable Energy

Rehabilitation Project of Power Generation System at Karai 7 Mini Hydro Power Plant

Country	Indonesia
Representative	Voith Fuji Hydro K.K.
Partner	PT Global Karai Energi

This project is to conduct a rehabilitation for Karai 7 Hydro Power Project (3.54MW x 2) located in north Sumatra. By introducing the latest turbine technology including High Velocity Oxygen Fuel (HVOF) coating to increase wear resistance and replacement of generators, the maximum output and annual power generation are expected to be increased by 8.8% and 5.7% respectively.

【Before renewal】



Case Examples of JCM Model Project

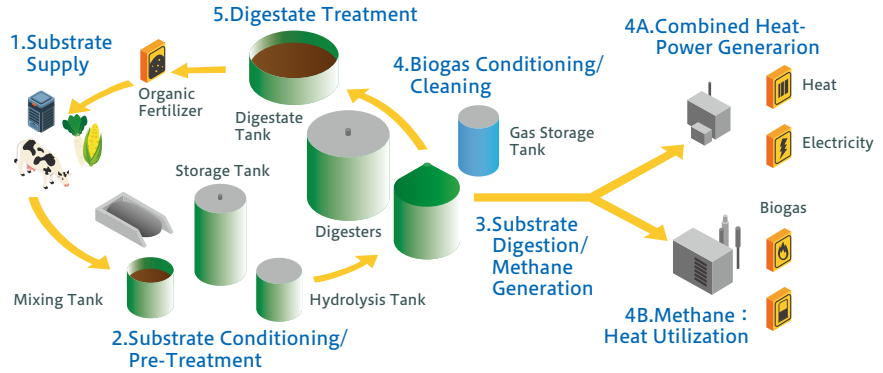
2

Renewable Energy

Biogas Power Generation and Fuel Conversion Project in Pineapple Canneries

Country	Philippines
Representative	Itochu Corporation
Partners	Met Power Venture Partners Holdings Inc., Surallah Biogas Ventures Corporation

In this project, biogas derived from pineapple residue is utilized as fuel for gas engines and boilers to generate power and steam at the two pineapple canning factories (Surallah and Polomolok) of Dole Philippines, Inc. This project aims to produce renewable energy by utilizing the pineapple waste and contributes to reducing greenhouse gases emissions as well as lowering electricity cost of the factories.



Case Examples of JCM Model Project

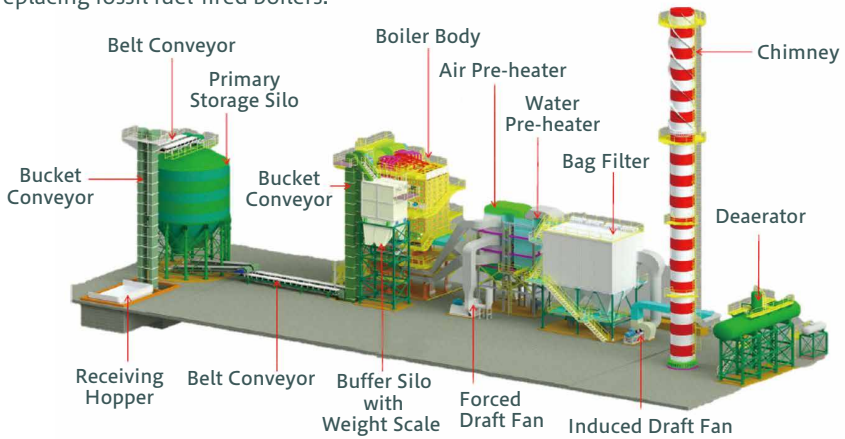
3

Renewable Energy

Introduction of Biomass Boiler to Chemical Factory

Country	Vietnam
Representative	Daiichi Jitsugyo Co., Ltd.
Partner	Thuan Hai Corporation

This project introduces biomass (rice husk) -fueled steam boilers to supply steam to a chemical factory located in Phu My 3 Specialized Industrial Park in Ba Ria Vung Tau Province. It contributes to the achievement of the country's Environment Protection Visions to 2030 and Green Growth Strategy through achieving decarbonization by replacing fossil fuel-fired boilers.



Case Examples of JCM Model Project

4

Energy Efficiency

Introduction of Air Cooled Chiller to Office Building

Country	Vietnam
Representative	Hitachi-Johnson Controls Air Conditioning, Inc.
Partner	Daibiru Saigon Tower Co., Ltd.

This project introduces a high efficiency air cooled chiller to Saigon Tower Office Building in Ho Chi Minh City and reduces energy consumption as well as greenhouse gas (GHG) emissions.

Air Cooled Chiller

Install kW meter for power line of air cooled chiller

Case Examples of JCM Model Project

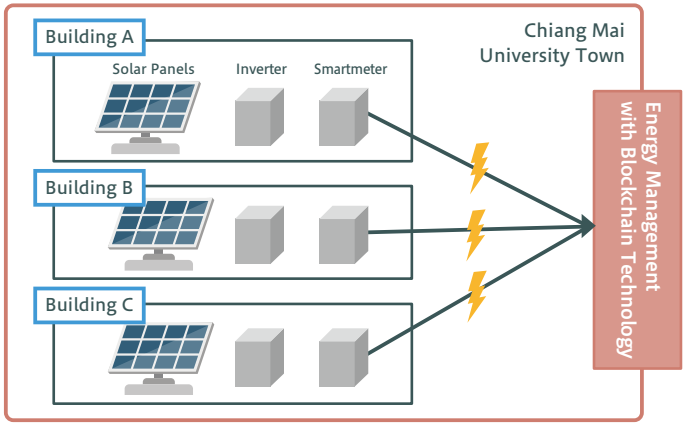
5

Renewable Energy

2.7MW Solar Power Project with Blockchain Technology in Chiang Mai University Town Community

Country	Thailand
Representative	Inabata Co., Ltd.
Partner	Thai Digital Energy Development Co., Ltd.

This project introduces a 2.7 MW solar power generation system on the roofs of multiple buildings in Chiang Mai University. The system is operated by blockchain technology which expands and optimizes the use of renewable energy on campus and reduces greenhouse gas (GHG) emissions.



Case Examples of JCM Model Project

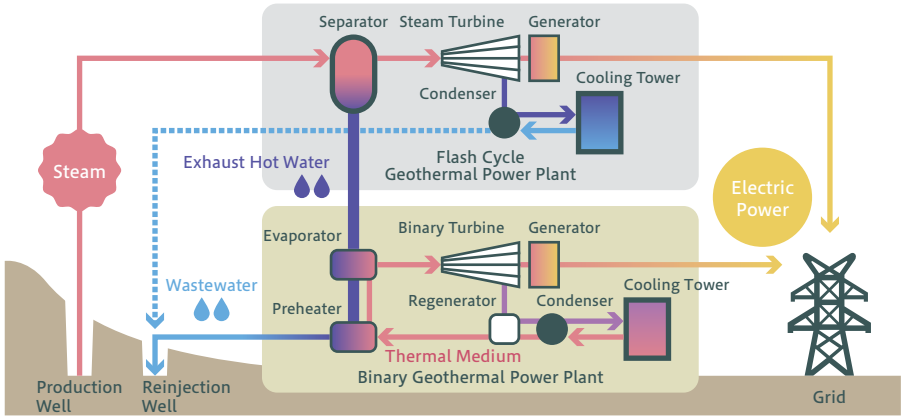
6

Renewable Energy

29MW Binary Power Generation Project at Palayan Geothermal Power Plant

Country	Philippines
Representative	Mitsubishi Heavy Industries, Ltd.
Partner	Bac Man Geothermal Inc.

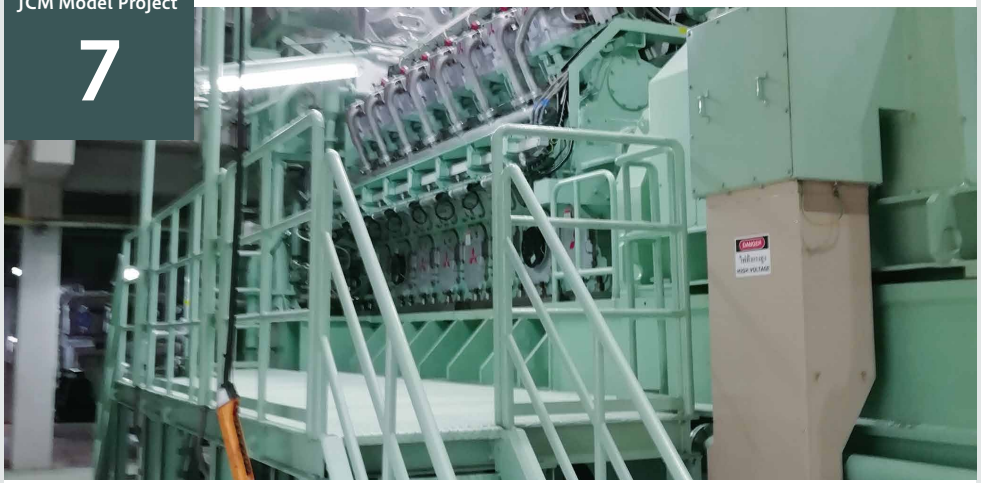
This project introduces a 29 MW binary geothermal power plant with the Organic Rankine Cycle (ORC) system to the existing 120MW flash type geothermal power plant in southern part of the Luzon island. This plant utilizes exhaust hot water of low enthalpy from the existing power plant without producing hazardous gasses.



Case Examples of JCM Model Project

7

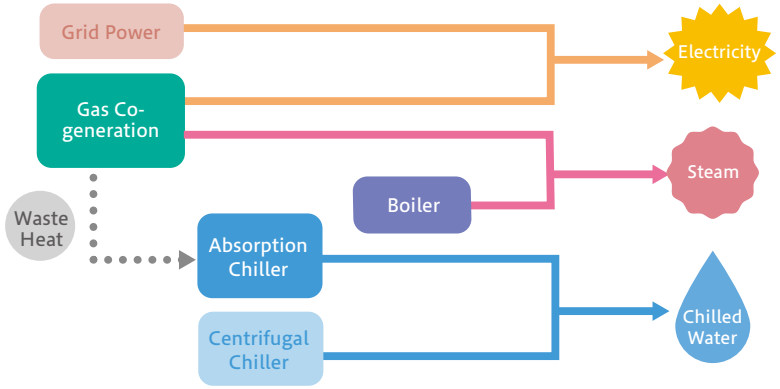
● Effective Use of Energy ● Energy Efficiency



Introduction of Gas Co-generation System and Absorption Chiller to Fiber Factory

Country	Thailand
Representative	The Kansai Electric Power Co., Inc.
Partner	Kansai Energy Solutions (Thailand) Co., Ltd.

This project aims to reduce CO2 emissions by introducing gas co-generation system (5 MW class x 2 sets) and absorption chiller (800 USRT class) to fiber factory in Bangpa-in District, Ayutthaya.These gas co-generation system and absorption chiller contribute to energy saving and cost reduction, and can improve reliability for power supply.



Case Examples of JCM Model Project

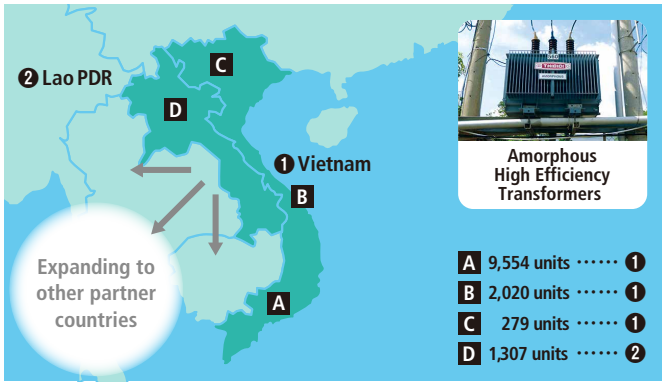
8

● Energy Efficiency

Introduction of Amorphous High Efficiency Transformers in Power Grid

Countries	①Vietnam, ②Lao PDR
Representative	Yuko Keiso Co., Ltd.
Partners	①EVN SPC, EVN HANOI, KHANH HOA PC, DON NAI PC ②Electricite Du Laos

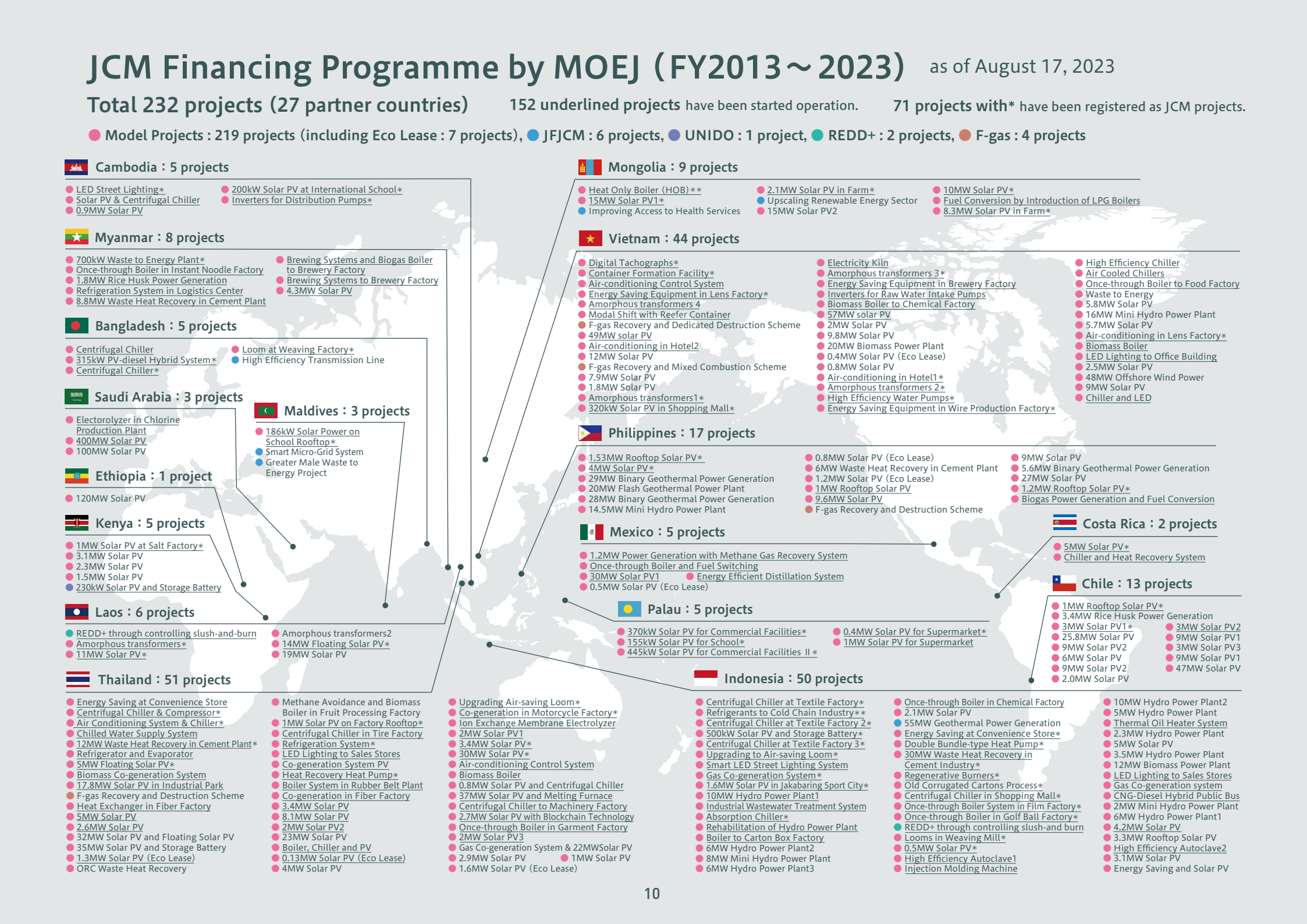
The purpose of this project is to reduce CO2 emissions and non-load losses (standby electricity) through the introduction of amorphous high efficiency transformers instead of transformers with silicon steel core in power grid. 1,307 transformers in total were introduced to Electricite Du Laos. Before this project in Lao PDR, this technology had been widely introduced in Vietnam and further expansion to other JCM partner countries can be expected.



JCM Financing Programme by MOEJ（FY2013～2023） as of August 17, 2023

Total 232 projects (27 partner countries) **152 underlined projects** have been started operation. **71 projects with*** have been registered as JCM projects.

● Model Projects : 219 projects (including Eco Lease : 7 projects), ● JFJCM : 6 projects, ● UNIDO : 1 project, ● REDD+ : 2 projects, ● F-gas : 4 projects



Cambodia : 5 projects

- LED Street Lighting*
- Solar PV & Centrifugal Chiller
- 0.9MW Solar PV
- 200kW Solar PV at International School*
- Inverters for Distribution Pumps*

Myanmar : 8 projects

- 700kW Waste to Energy Plant*
- Once-through Boiler in Instant Noodle Factory
- 1.8MW Rice Husk Power Generation
- Refrigeration System in Logistics Center
- 8.8MW Waste Heat Recovery in Cement Plant
- Brewing Systems and Biogas Boiler to Brewery Factory
- Brewing Systems to Brewery Factory
- 4.3MW Solar PV

Bangladesh : 5 projects

- Centrifugal Chiller
- 315kW PV-diesel Hybrid System*
- Centrifugal Chiller*
- Loom at Weaving Factory*
- High Efficiency Transmission Line

Saudi Arabia : 3 projects

- Electorolyzer in Chlorine Production Plant
- 400MW Solar PV
- 100MW Solar PV

Maldives : 3 projects

- 186kW Solar Power on School Rooftop*
- Smart Micro-Grid System
- Greater Male Waste to Energy Project

Ethiopia : 1 project

- 120MW Solar PV

Kenya : 5 projects

- 1MW Solar PV at Salt Factory*
- 3.1MW Solar PV
- 2.3MW Solar PV
- 1.5MW Solar PV
- 230kW Solar PV and Storage Battery

Laos : 6 projects

- REDD+ through controlling slush-and-burn
- Amorphous transformers*
- 11MW Solar PV*
- Amorphous transformers2
- 14MW Floating Solar PV*
- 19MW Solar PV

Thailand : 51 projects

- Energy Saving at Convenience Store
- Centrifugal Chiller & Compressor*
- Air Conditioning System & Chiller*
- Chilled Water Supply System
- 12MW Waste Heat Recovery in Cement Plant*
- Refrigerator and Evaporator
- 5MW Floating Solar PV*
- Biomass Co-generation System
- 17.8MW Solar PV in Industrial Park
- F-gas Recovery and Destruction Scheme
- Heat Exchanger in Fiber Factory
- 5MW Solar PV
- 2.6MW Solar PV
- 32MW Solar PV and Floating Solar PV
- 35MW Solar PV and Storage Battery
- 1.3MW Solar PV (Eco Lease)
- ORC Waste Heat Recovery
- Methane Avoidance and Biomass Boiler in Fruit Processing Factory
- 1MW Solar PV on Factory Rooftop*
- Centrifugal Chiller in Tire Factory
- Refrigeration System*
- LED Lighting to Sales Stores
- Co-generation System PV
- Heat Recovery Heat Pump*
- Boiler System in Rubber Belt Plant
- Co-generation in Fiber Factory
- 3.4MW Solar PV
- 8.1MW Solar PV
- 2MW Solar PV2
- 23MW Solar PV
- Boiler, Chiller and PV
- 0.13MW Solar PV (Eco Lease)
- 4MW Solar PV
- Upgrading Air-saving Loom*
- Co-generation in Motorcycle Factory*
- Ion Exchange Membrane Electrolyzer
- 2MW Solar PV1
- 3.4MW Solar PV*
- 30MW Solar PV*
- Air-conditioning Control System
- Biomass Boiler
- 0.8MW Solar PV and Centrifugal Chiller
- 37MW Solar PV and Melting Furnace
- Centrifugal Chiller to Machinery Factory
- 2.7MW Solar PV with Blockchain Technology
- Once-through Boiler in Garment Factory
- 2MW Solar PV3
- Gas Co-generation System & 22MWSolar PV
- 2.9MW Solar PV
- 1MW Solar PV
- 1.6MW Solar PV (Eco Lease)

Mongolia : 9 projects

- Heat Only Boiler (HOB)**
- 15MW Solar PV1*
- Improving Access to Health Services
- 2.1MW Solar PV in Farm*
- Upscaling Renewable Energy Sector
- 15MW Solar PV2
- 10MW Solar PV*
- Fuel Conversion by Introduction of LPG Boilers
- 8.3MW Solar PV in Farm*

Vietnam : 44 projects

- Digital Tachographs*
- Container Formation Facility*
- Air-conditioning Control System
- Energy Saving Equipment in Lens Factory*
- Amorphous transformers 4
- Modal Shift with Reefer Container
- F-gas Recovery and Dedicated Destruction Scheme
- 49MW solar PV
- Air-conditioning in Hotel2
- 12MW Solar PV
- F-gas Recovery and Mixed Combustion Scheme
- 7.9MW Solar PV
- 1.8MW Solar PV
- Amorphous transformers1*
- 320kW Solar PV in Shopping Mall*
- Electricity Kiln
- Amorphous transformers 3*
- Energy Saving Equipment in Brewery Factory
- Inverters for Raw Water Intake Pumps
- Biomass Boiler to Chemical Factory
- 57MW solar PV
- 2MW Solar PV
- 9.8MW Solar PV
- 20MW Biomass Power Plant
- 0.4MW Solar PV (Eco Lease)
- 0.8MW Solar PV
- Air-conditioning in Hotel1*
- Amorphous transformers 2*
- High Efficiency Water Pumps*
- Energy Saving Equipment in Wire Production Factory*
- High Efficiency Chiller
- Air Cooled Chillers
- Once-through Boiler to Food Factory
- Waste to Energy
- 5.8MW Solar PV
- 16MW Mini Hydro Power Plant
- 5.7MW Solar PV
- Air-conditioning in Lens Factory*
- Biomass Boiler
- LED Lighting to Office Building
- 2.5MW Solar PV
- 48MW Offshore Wind Power
- 9MW Solar PV
- Chiller and LED

Philippines : 17 projects

- 1.53MW Rooftop Solar PV*
- 4MW Solar PV*
- 29MW Binary Geothermal Power Generation
- 20MW Flash Geothermal Power Plant
- 28MW Binary Geothermal Power Generation
- 14.5MW Mini Hydro Power Plant
- 0.8MW Solar PV (Eco Lease)
- 6MW Waste Heat Recovery in Cement Plant
- 1.2MW Solar PV (Eco Lease)
- 1MW Rooftop Solar PV
- 9.6MW Solar PV
- F-gas Recovery and Destruction Scheme
- 9MW Solar PV
- 5.6MW Binary Geothermal Power Generation
- 27MW Solar PV
- 1.2MW Rooftop Solar PV*
- Biogas Power Generation and Fuel Conversion

Mexico : 5 projects

- 1.2MW Power Generation with Methane Gas Recovery System
- Once-through Boiler and Fuel Switching
- 30MW Solar PV1
- Energy Efficient Distillation System
- 0.5MW Solar PV (Eco Lease)

Palau : 5 projects

- 370kW Solar PV for Commercial Facilities*
- 155kW Solar PV for School*
- 445kW Solar PV for Commercial Facilities II*
- 0.4MW Solar PV for Supermarket*
- 1MW Solar PV for Supermarket

Indonesia : 50 projects

- Centrifugal Chiller at Textile Factory*
- Refrigerants to Cold Chain Industry**
- Centrifugal Chiller at Textile Factory 2*
- 500kW Solar PV and Storage Battery*
- Centrifugal Chiller at Textile Factory 3*
- Upgrading to Air-saving Loom*
- Smart LED Street Lighting System
- Gas Co-generation System*
- 1.6MW Solar PV in Jakabaring Sport City*
- 10MW Hydro Power Plant1
- Industrial Wastewater Treatment System
- Absorption Chiller*
- Rehabilitation of Hydro Power Plant
- Boiler to Carton Box Factory
- 6MW Hydro Power Plant2
- 8MW Mini Hydro Power Plant
- 6MW Hydro Power Plant3
- Once-through Boiler in Chemical Factory
- 2.1MW Solar PV
- 55MW Geothermal Power Generation
- Energy Saving at Convenience Store*
- Double Bundle-type Heat Pump*
- 30MW Waste Heat Recovery in Cement Industry*
- Regenerative Burners*
- Old Corrugated Cartons Process*
- Centrifugal Chiller in Shopping Mall*
- Once-through Boiler System in Film Factory*
- Once-through Boiler in Golf Ball Factory*
- REDD+ through controlling slush-and burn
- Looms in Weaving Mill*
- 0.5MW Solar PV*
- High Efficiency Autoclave1
- Injection Molding Machine
- 10MW Hydro Power Plant2
- 5MW Hydro Power Plant
- Thermal Oil Heater System
- 2.3MW Hydro Power Plant
- 5MW Solar PV
- 3.5MW Hydro Power Plant
- 12MW Biomass Power Plant
- LED Lighting to Sales Stores
- Gas Co-generation system
- CNG-Diesel Hybrid Public Bus
- 2MW Mini Hydro Power Plant
- 6MW Hydro Power Plant1
- 4.2MW Solar PV
- 3.3MW Rooftop Solar PV
- High Efficiency Autoclave2
- 3.1MW Solar PV
- Energy Saving and Solar PV

Costa Rica : 2 projects

- 5MW Solar PV*
- Chiller and Heat Recovery System

Chile : 13 projects

- 1MW Rooftop Solar PV*
- 3.4MW Rice Husk Power Generation
- 3MW Solar PV1*
- 25.8MW Solar PV
- 9MW Solar PV2
- 6MW Solar PV
- 9MW Solar PV2
- 2.0MW Solar PV
- 3MW Solar PV2
- 9MW Solar PV1
- 3MW Solar PV3
- 9MW Solar PV1
- 47MW Solar PV

Outline of Guidelines for Submitting JCM Model Project Proposal in FY2023（1）

Purpose

To financially support the implementation of projects which reduce greenhouse gas (GHG) emissions by utilizing leading decarbonizing technologies in developing countries, and in return, to acquire JCM credits to achieve Japan's GHG emission reduction target.

Eligible Projects

Projects that reduce energy-related CO2 emissions with leading decarbonizing technologies in developing countries, with which Japan has signed or has been consulting to sign a bilateral document on JCM, and that are expected to contribute to achieving Japan's NDC through the JCM

Requirements for Representative Participant

A representative participant of the JCM model project shall be a Japanese entity and shall appropriately manage and implement the project as a representative entity of an international consortium which includes JCM partner-country entities. A representative participant also shall conduct measurement, reporting and verification (MRV) of GHG emission reductions.

Implementation Period of Model Projects

Participants of the model project shall start installation after the contract of finance is concluded and shall finish installation and payments of the eligible facilities and equipment within 3 years.

Budget

About JPY 15 billion（approx. USD 109 million） from FY 2023 for 3 fiscal years

Financial Support per Project

Equal to or less than JPY 2 billion in principle

Maximum Percentage of Financial Support

Shall be determined according to the number of previously selected project(s) using a similar technology in each partner country.

Number of previously selected project(s) using a similar technology in each partner country	None (0)	Up to 3 (1-3)	4 and more
Percentage of financial support	Up to 50%	Up to 40%	Up to 30%

Costs Covered by Financial Support

This programme covers the following costs that directly contribute to energy-related CO2 emission reductions. The typical costs not covered by this programme are also listed below.

Covered*

- Facilities/equipment（including monitoring equipment）
- Main construction work
- Ancillary work
- Machinery and appliances
- Surveying and testing
- Administrative work
- Other necessary costs approved by GEC

NOT covered

- Removal of existing facilities/equipment (including miscellaneous expenses related to removal costs)
- Equipment and consumable supplies/materials for maintenance of the facilities/equipment installed by the model project, emergency facilities/equipment, safety equipment（such as fire extinguisher, sprinkler, PPE, etc.) and security equipment.
- Civil engineering work and building (excluding structures that directly contribute to energy-related CO2 emission reductions)
- Cost related to a simple restoration of function, such as restoring the function to the state at the time of installation by updating existing facilities/equipment
- Spare parts（excluding those used for testing and commissioning）
- On-site inspections and writing reports that are submitted to GEC as part of the model project
- Forward exchange contract and remittance charge
- Cost related to land acquisition

＊Costs eligible for financial support in the JCM Eco Lease Scheme are limited to a leasing fee of the costs of facilities/equipment and relevant lease interests.

Outline of Guidelines for Submitting JCM Model Project Proposal in FY2023（2）

Period of Measurement, Reporting and Verification（MRV）

Participants of the model project shall conduct measurement, reporting and verification（MRV）of GHG emission reductions until the end of legal durable years of the facilities/equipment as stipulated by the Japanese law. Please note that the legal durable years of the same facility may vary depending on the purpose of business usage as shown in the examples below.*1

*1 For questions regarding how to determine the appropriate legal durable years for your project, please contact Japanese local tax office.

Ministerial Ordinance on the Durable Years, etc. of Depreciable Assets
（Ordinance NO.15 of Ministry of Finance, March 31, 1965）

Appendix table 2 **Producing "other final products" by using installed facilities**

Appendix table 1 **Other cases than the above**
ex. the building owner introduces facilities as shared equipment

〈Examples〉

Category of technology	Purpose of business usage	Legal durable years
Solar power generation facilities	Electric power sales	17 years
	Internal consumption at car manufacturing factories	9 years
	Internal consumption from rooftop equipment on warehouses	12 years
Boilers	Cooking oil production	10 years
	Rubber products production	9 years
	Hot water supply for hotels	17 years
Absorption chillers	Supply of chilled water in chemical factories	8 years
	Air conditioning in shopping malls	15 years

Cost-effectiveness of Emission Reductions of GHGs

The cost of reducing 1 ton of GHG emissions shall be JPY4,000/tCO2eq or lower. However, if the number of similar technological projects in a partner country is 5 or more, its cost-effectiveness is expected to be JPY3,000/tCO2eq or lower. If it is 10 or more, JPY2,500/tCo2eq or lower. If it is 20 or more, JPY2,000/tCo2eq or lower.*2

*2 Regarding the number of similar technological projects in the partner countries, please refer to Annex 3 "Categorization by applied technology type, Number of JCM model project by each country" of Guidelines for SubmittingProposals.

Cost-effectiveness of emission reductions of GHG（JPY/tCO2eq）
= Amount of financial support（JPY）*3
÷ Total emission reductions of GHG（tCO2eq）*4

*3 Amount of financial support（JPY）
= Costs eligible（JPY）× Percentage of financial support（%）

*4 Total emission reductions of GHG
= Emission reductions of GHG per year（tCO2eq/y）× legal durable years（y）

In principle, if the number of similar technological projects in a partner country is less than 5,
JPY4,000/tCO2eq or lower

If the number of similar technological projects in a partner country is 5 or more,
JPY3,000/tCO2eq or lower

If the number of similar technological projects in a partner country is 10 or more,
JPY2,500/tCO2eq or lower

If the number of similar technological projects in a partner country is 20 or more,
JPY2,000/tCO2eq or lower

Solar power project
JPY2,500/tCO2eq or lower

Hydropower project
JPY500/tCO2eq or lower

Outline of Guidelines for Submitting JCM Model Project Proposal in FY2023 (3)

Main Evaluation Criteria for Selecting JCM Model Projects in FY2023 including New Points

☑ Countries of priority

The model project shall prioritize the partner countries that have already established the JCM. Based on the objective of increasing the number of partner countries to around 30 in accordance with the Grand Design and Action Plan for a New Form of Capitalism (Cabinet Decision in June 2022), proposals for projects in non-partner countries will also be accepted on the basis that their selection will be considered in parallel with the bilateral negotiations for new partnership.

☑ Additional point for JCM focus areas of the Infrastructure Initiative for Decarbonization (MOEJ, June 2021)

Projects that introduce following leading decarbonizing technol ogies that are among the focus areas for JCM according to the Infrastructure Initiative for Decarbonization (MOEJ, June 2021) (*Excluding countries that have already introduced or are introducing these technologies as JCM model projects):

1) Renewable energies (solar power, wind power, hydro power, geothermal energy, biomass energy, green hydrogen, and so forth)
2) Green logistics including cold chain (non-fluorocarbon cooling system, modal shift, airports, ports and harbors, and so forth)
3) Waste management infrastructure (waste to energy, and so forth)

☑ Criteria for solar power plants

The conversion rate from optical to electric energy of photovoltaic modules must be 21% or higher.

☑ Criteria for solar power plants with batteries

- Photovoltaic module:
  The efficiency of photovoltaic modules must be 21% or higher.
- Battery:
  If the battery meets the requirements stipulated in Guidelines for Submitting Proposals, the battery will also be covered by this programme.

☑ Measures to respect human rights

Representative participant should take the best possible measures to respect human rights under its own responsibility in accordance with the National Action Plan on Business and Human Rights (2020-2025) (the Inter-Ministerial Committee for Japan's National Action Plan on Business and Human Rights, October 2020) as well as the Guidelines on Respecting Human Rights in Responsible Supply Chains (the Inter-Ministerial Committee on Policy Promotion for the Implementation of Japan's National Action Plan on Business and Human Rights, September, 2022)

JCM Eco Lease Scheme

From the fiscal year 2020, "JCM Eco Lease Scheme" is implemented to cover leasing charges and interests. This scheme has an advantage in reducing the reporting burden of representative participants with shorter monitoring period and simpler proposal document.

Representative Participant	Japanese leasing company
Amount of Financial Support	Up to JPY500 million for 3 years in principle
Percentage of Financial Support	Uniformly 10% of total leasing charges including leasing interests
Period of MRV	Equal to leasing period
Leasing Period	At least 5 years
Costs Eligible for Financing	Leasing charges of the costs of facilities/equipment and relevant lease interests
Eligible Type of Technologies	In principle, technologies with JCM methodology (ies) that have been either approved or proposed
Financial Statement for Application	Only financial statements of Representative Participant need to be submitted.

Submission of Proposals

How to Submit Proposals:
Proposals must be submitted electronically.

Period:
From Thursday, 6 April 2023 to Thursday, 30 November 2023 (12:00 JST)

- Pre-registration is recommended before submitting a proposal.
- It may be closed before the deadline based on the availability of remaining budget.

Finance Programme for JCM F-gas Recovery and Destruction Model Projects by MOEJ

Budget for FY2023

JPY 57 million (approx. USD 0.45million)
(USD 1 = JPY 137)

Ministry of the Environment

Fixed amount grant for project cost
(up to JPY 57 million/case)

Global Environment Centre Foundation (GEC)

After issuance, some credits are to be transferred to the Japanese government.

International consortiums (which include Japanese entities)

Manufacturers of equipment containing F-gas (A/C manufacturers, etc.)	Business operators who own equipment containing F-gas	F-gas recovery and delivery operators of F-gas (recycling or scrap operators)	F-gas destruction operators (may use existing facility for destruction)

Purpose

To contribute to achieve Japan's emission reduction target by utilizing JCM credit through recovery and destruction of F-gases without releasing them into the atmosphere

Project Period

In principle, three years (Five years in maximum)
(e.g., 1st year for making business scheme; 2nd year for installing facilities and equipment; 3rd year for implementing recovery/destruction)

Scope of Financing

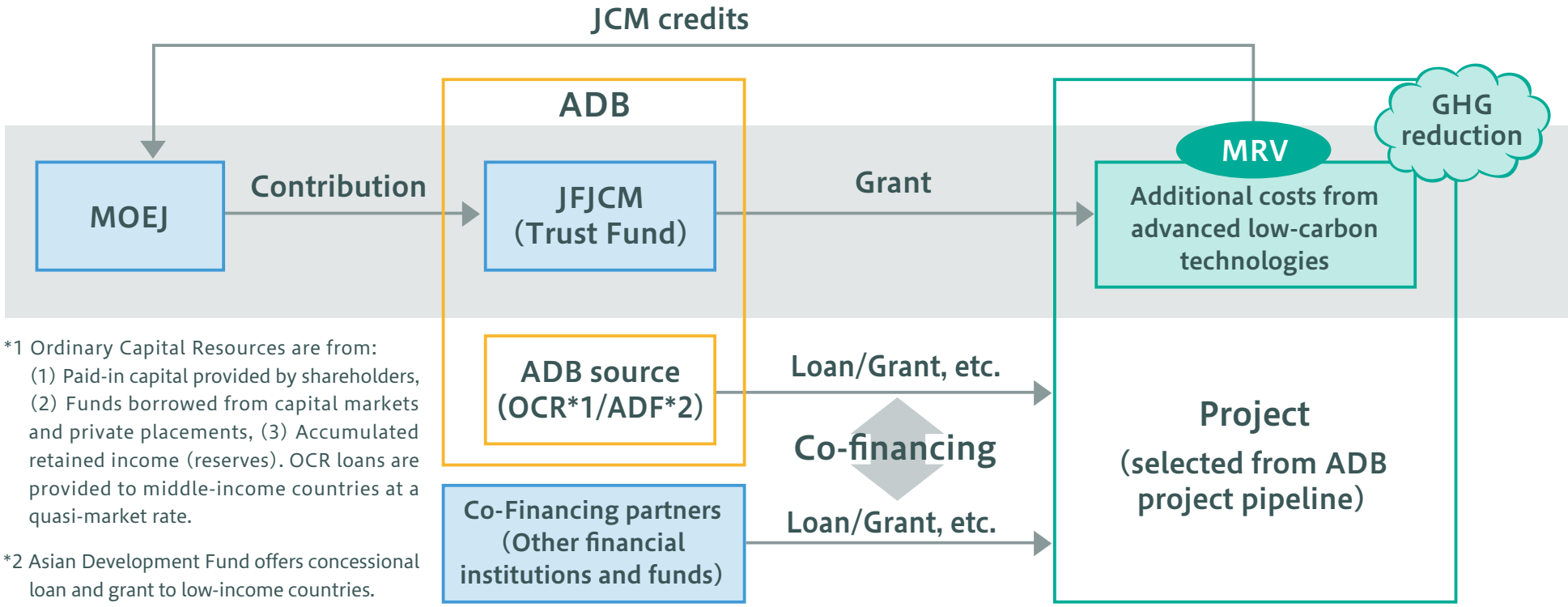
- Establishment of scheme for recovery and destruction
- Installation of facilities/equipment for recovery/destruction
- Implementation of recovery, transportation, destruction and monitoring

Eligible Projects

- Implement F-gas recovery/destruction activities from used equipment
- Aim to register as JCM project and issue credits

ADB Trust Fund: Japan Fund for the Joint Crediting Mechanism（JFJCM）

Budget	**Budget for 2023: JPY 3 billion（approx. USD 22.5 million）** ● Cumulative contribution from 2014: JPY 14 billion（approx. USD 100 million） including JPY 0.3 billion from the contributions for methane emission reductions
Overview	To provide financial incentives for the adoption of expensive but advanced low-carbon/methane in projects financed by Asian Development Bank（ADB）
Purpose	To develop ADB projects with sustainable and decarbonizing transition perspective by introducing advanced low-carbon technologies as well as to acquire JCM credits

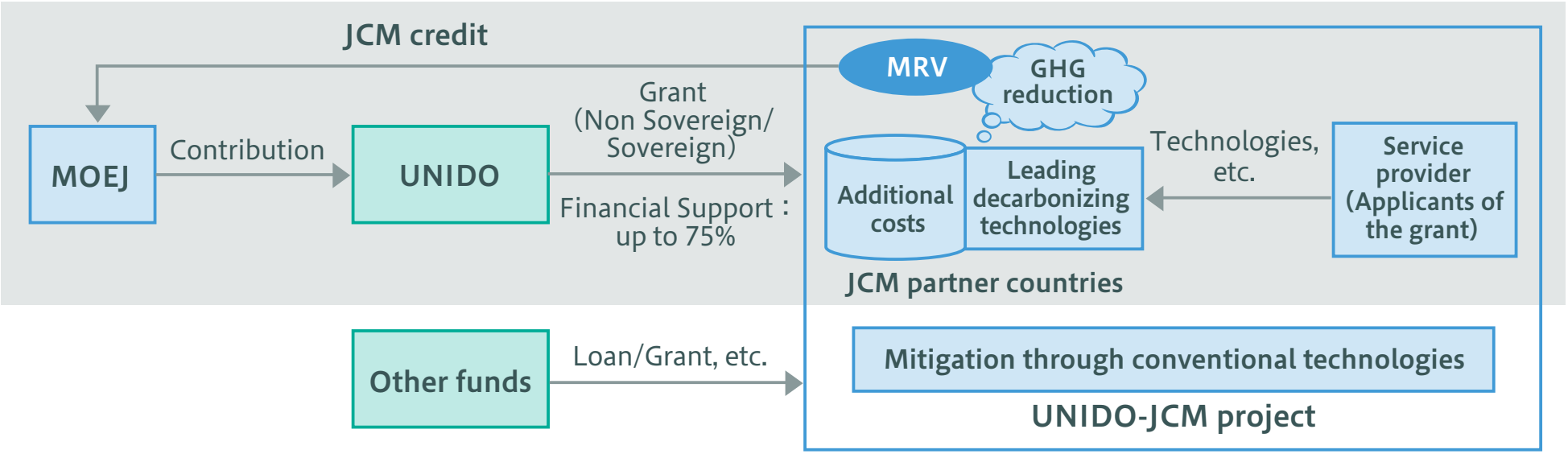


*1 Ordinary Capital Resources are from: (1) Paid-in capital provided by shareholders, (2) Funds borrowed from capital markets and private placements, (3) Accumulated retained income (reserves). OCR loans are provided to middle-income countries at a quasi-market rate.

*2 Asian Development Fund offers concessional loan and grant to low-income countries.

JCM Support Programme by UNIDO

Budget	**JPY 200 million（approx. USD 1.46 million）** ● Supplementary budget for FY2022: JPY 100 million（approx. USD 0.73 million） （Contributions for methane emission reductions） ● Cumulative contribution from 2014: JPY 400 million（approx. USD 2.92 million） including JPY 0.3 billion from the contributions for methane emission reductions
Overview	● Japanese service providers are to support the implementation of projects that utilize leading decarbonizing technologies in JCM partner countries. ● Reduce the additional costs of the introduction of leading decarbonizing technology through financial support from UNIDO
Purpose	Targeting JCM partner countries, mainly in the African region, promote the transition to a decarbonization of society by developing a leading decarbonizing technologies, through the JCM scheme and aim to acquire JCM credits from realized GHG emissions reductions
Requirements（Non-Sovereign）	● Application: Japanese company as a service provider/ an international consortium ● Maximum percentage of financial support：75% ● Monitoring period：an annual basis for at least 5 years, etc.



Japan Platform for Redesign: Sustainable Infrastructure (JPRSI)

What is JPRSI?

JPRSI is a public-private partnership platform established by the Ministry of the Environment of Japan in September 2020 to provide comprehensive support for partner country's governments and corporations, etc. to improve environment by introduction of Japanese environmental infrastructure.

Environmental Infrastructure Supported by JPRSI

(1) Infrastructure for environmental conservation

Waste to Energy (WtE), Waste water treatment plant, Decentralized domestic wastewater treatment system ("Johkasou"), Renewable power generation, renewable hydrogen, etc.

(2) Infrastructure for decarbonization and reduction of environmental impacts

- Introduction of renewable energy and energy-saving equipment to infrastructure and cities,
- Highly efficient energy utilization and management in infrastructure,
- Introduction of equipment for emissions reduction from pollutants (wastewater, exhaust gas, dust, etc.),
- Introduction of disaster prevention systems that contribute to climate change adaptation, etc.

Major Activities and Achievements

(1) Dissemination of technical information provided by Japanese companies

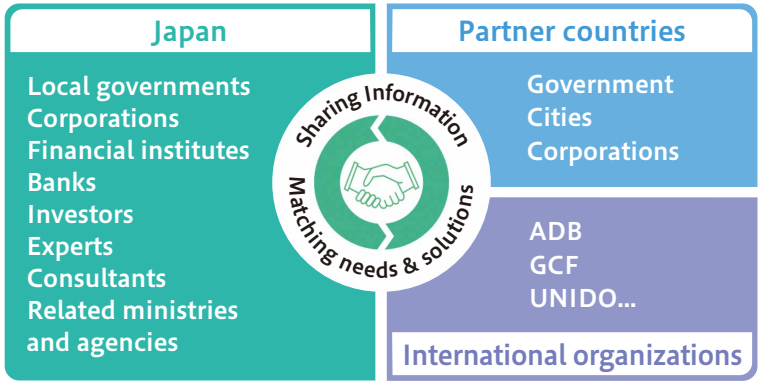
A list of environmental technologies of JPRSI members are compiled and disseminated. (220 technologies, available in English)

(2) Matching needs in partner countries with Japanese corporations' solutions

The JPRSI Secretariat receives inquiries from local governments and/or private sectors of commerce with interest in Japanese environmental technologies and the possibility to collaborate in projects, and introduces the inquiries to JPRSI members for matching purposes.

JPRSI Members (as of June 30, 2023)

484 Japanese corporations, etc. engaged in environmental infrastructure



Free registration
Sign up here

JPRSI HP: https://www.jprsi.go.jp/en
JPRSI Secretariat (FY2023):
Overseas Environmental Cooperation Center (OECC), Japan
E-mail: info-jprsi@oecc.or.jp

Application Support by GEC for JCM Financing Programme

GEC Website

GEC introduces project examples selected so far in the JCM Model Project on the GEC website. You can search by sector such as renewable energy for project study. For additional information, please refer to “Guidelines for Submitting Proposals” and Q&A on the website.

Suitable for Obtaining information on the programme including past projects and how to apply, etc.

https://gec.jp/jcm/

“JCM Global Match” JCM Business Matching Platform - Free of charge -

The JCM Global Match is a free-of-charge online business matching platform designed to help you find your business partners for an International Consortium of your JCM Model Project as well as JCM F-gas Project, ADB JFJCM and UNIDO-JCM Project. Among the registrants in the platform, you will be able to find Japanese and international companies with excellent decarbonization technologies, JCM partner country companies to use such technologies, consultants familiar with the JCM Programme and helpful in deal making, and Japanese and multinational financial institutions. About 40 % of the registrants are Japanese entities and the rest are from more than 40 countries.
You can appeal your company’s specialties and projects to all the registrants in various ways, like adding your information in the profile and specialty sections, posting a chat about your company or project in the "Open Discussion" room, etc. And you can find your potential business partner from the search window or the lists of the companies by categories. If you find a registrant of a company you are interested in, send a “Matching Request” to him/her. Once the receiver accepts your request, you can get his/her whereabouts to contact directly with him/her. In addition, you will get useful information about JCM and events on the platform. Register now. It’s easy.
(Contact for JCM Global Match: jcm-gm@gec.jp)

https://jcm-gm.my.site.com/JCMGlobalMatch/s/?language=en_US

Suitable for Finding JCM project partners including Japanese companies expanding business overseas and overseas companies wishing to introduce technologies using JCM funding.

Consultation by GEC

GEC provides application consultation in order to assist project formation for entities interested in JCM Model Project. Please feel free to contact us. Please send an e-mail to jcm-info@gec.jp. Subject of e-mail should be “Consultation on application for JCM Model Project (Your company name)” .

Suitable for Asking questions to or consulting with GEC staff face to face or online at various phases of proposal preparation from early planning to application.

Cover Pictures

Upper row : Biomass Boiler (Vietnam) Daiichi Jitsugyo Co., Ltd. / Middle row left : Biogas Power & Fuel Conversion (Philippines) Itochu Corporation
Middle row right : Mini Hydro Power (Indonesia) Voith Fuji Hydro K.K. / Lower row : Solar Power utilizing farmland (Chile) Farmland Co., Ltd.

Global Environment Centre Foundation

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