

Commissioned work by Ministry of Economy, Trade and Industry, Japan

Seminar on the Further Implementation of the Joint Crediting Mechanism (JCM) in Chile

Key Points for Utilizing the METI JCM Feasibility Study Schemes

December 19, 2024

JCM FS Secretariat

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経済産業省 令和5年度 二国間クレジット取得等のためのインフラ整備調査 (JCM実現可能性調査) 企画提案の公募説明会資料

Ministry of Economy, Trade and Industry, Japan Call for FY2024 JCM Feasibility Study
Briefing for proposal

公募期間:令和5年4月24日(月)~5月26日(金)正午 Open from 24 April 2024 to 12:00 PM 26 May 2024

*Presentation is based on JCMFS application guideline for FY2024.

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1. Purpose

□ Purpose

Examining the feasibility of a project to **commercialize** decarbonization technology(ies) and product(s) by Japanese and/or other entities, and to realize GHG emission reductions and **JCM credits issuance by utilizing the Joint Crediting Mechanism (JCM)**.

As an exit strategy of JCM FS, it is expected to **apply for either the NEDO JCM Demonstration scheme** or **Private JCM scheme** after completion of your proposed JCMFS.



2. Target countries, technologies and products

☐ Target countries

Current JCM partner countries

and prospective partner countries.

□ Target technologies/products



Current JCM partner countries

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

Energy-derived CO2 emission reduction is necessary:

✓ <u>Reduction of energy-derived CO2 emissions</u> through the use of superior decarbonization technologies is necessary, and <u>contribution to issue JCM credits</u> in partner countries that have signed or perspective partner countries.

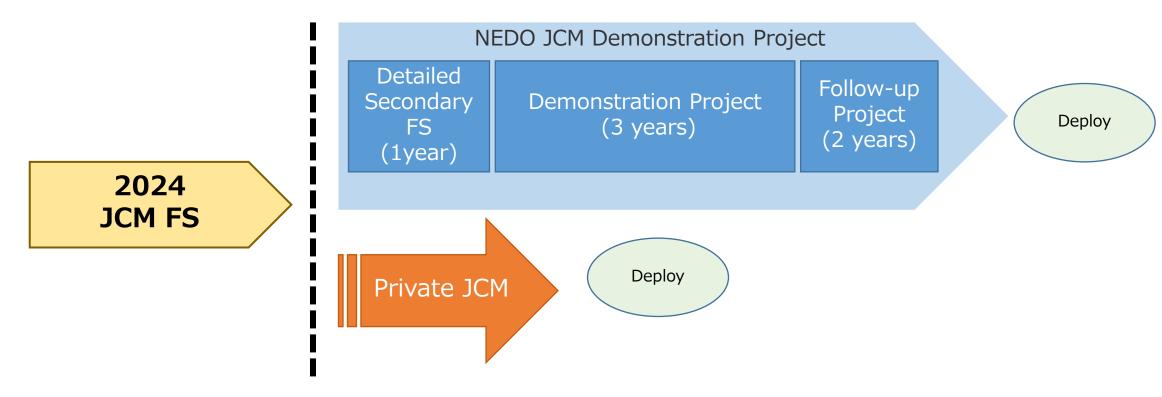
GHG Emission reduction should be calculated in a quantitative manner:

✓ GHG emission reductions shall be calculated in a quantitative manner. Applicant have to consider existing JCM methodology or propose a new JCM methodology. While no clear threshold for amount of GHG emission reductions will be set, priority may be given to proposals that are expected to achieve larger GHG emission reductions. ⁵



3. Expected exit strategy after JCM FS

- Exit strategy
 - NEDO JCM Demonstration Project, or
 - Private JCM project





3. Expected exit strategy after JCM FS

Differences in target technologies and assumed GHG emission reductions by each exit strategy.

Exit strategy	NEDO JCM Demonstration Project	Private JCM
Target Technology	 The technology to be demonstrated must be a Japanese low-carbon technology or system owned by the proposer, and there must be technical issues to be overcome in order to promote the technology or system in the partner country. The demonstration is necessary to overcome such technical issues. The demonstration project is expected to have fossil energy-derived CO2 emission reductions. The demonstration project is expected to have quantifiable GHG emission reductions. The dissemination strategy for proposed technology/system must be concrete and highly feasible. The demonstration plan must be appropriately prepared as an effective means of overcoming the technical issues identified in 1. 	There are no restrictions on the target technologies if the introduction of superior decarbonization technologies that contribute to GHG emission reductions and absorption by private enterprises in Japan is financed by the private enterprises themselves. *Note that the target of JCM FS is the introduction of technologies that contribute to the reduction of energy-based CO2 emissions.
Assumed GHG emission reductions	JCM credits of 1,000 t-CO2 or more are expected during the monitoring period of the demonstration project, and emission reductions of 10,000 t-CO2 or more per year during the period of diffusion and deployment after the demonstration project is completed.	No specific criteria are set.



4. Research items on JCM FS

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Survey Details
 Identify trends policies and systems related to FS in a partner country, as well as issues and local needs.
 Understand socio-economic situation, market trends and local needs for proposed systems/technologies in a partner country.
 Identify and analyze issues against project commercialization utilizing JCM (business risks, bottlenecks for dissemination, etc.) as well as countermeasures to be taken for JCM project formation.
 Draft a GHG emission reduction methodology utilizing JCM methodology format and calculate GHG emission reduction potential for a proposed JCM project.
 Discuss with government officials and business partners and related stakeholders on a proposed JCM project.
 Based on the results of JCM FS, identify remaining issues to be solved for JCM project formation from political, economical, social and technical perspectives, and consider their solutions.
Based on the results of JCM FS, draft a PIN.



4. Research items on JCM FS

PIN reference	
number	(For the secretariat use only)

All the infromation described in this document is at the pre-implementaion stage and may change as the

1. Basic project information		
1.1. Date of Submission	dd/mm/yyyy	
1.2. Partner country		
(A host county where the planned		
project is located)		
1.3. Title of the planned project		
(Should be self-explanatory and		
clearly indicate the activity leading to		
GHG emissions reductions / removals)		
The Trial Committee we have the seconds on	blish model black and discrete DDI occurrence with the should be	

The Joint Committee makes the result publicly available, including the PIN reference number, the name of the planned project, the date of submission in the above, and the reason for objection when the Joint Committee objects to the planned project described in the PIN through the JCM website.

	information	
2.1. Representative Japanese particip		
(For identification of the person in cha-	rge for the project i	n terms of communication)
Name of the entity (Company, etc.):		
Roles of the entity in the project:		
Address of the contact entity:		
Website of the contact entity:		
Name and position of the main contact person in the entity:	Last name: Position:	First name:
E-mail of the main contact person:	T OSITION.	
Phone number of the main contact person:		
2.2. Japanese participant(s) for the participant (s) f		oles in the project except for the entity in 2.1. tity involved in the project)
Name of the entity (Company, etc.):		
Roles of the entity in the project:		
Address of the entity:		
Address of the entity: Website of the entity:		
	Last name: Position:	First name:

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ct	person of each entity involved in the project)
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一国と調整中のものであり最新様式はJCM ホームページの各パートナー国ページを参照する必要がある。) nomic incentive will make the project viable.):

age of the implementation structure including financial flows below:

of PIN		
Date	Contents revised	
nm/yyyy		
nm/yyyy		
nm/yyyy		

ats fill in this section when they submit a revised PIN to the Joint Committee



5. JCM FS budget and eligibility for application

☐ Type : Entrustment from JCMFS secretariat

□ Schedule : from Contract date to 7 February 2024

Schedule of open call for proposal in 2024:

1st call from 22 April to 24 May 2024 (7 projects approved). Contract date: middle July.

2nd call from 22 July to 23 August 2024 (7 projects approved). Contract date: late September.

3rd call from 21 October to 1 November 2024 (1 projects approved). Contract date: middle November

☐ Budget

: Maximum 15 million JPY (tax excluded)/proposal

= 100,000 USD/proposal (1USD=150JPY)

= 90 million CLP/proposal (1USD=900CLP)

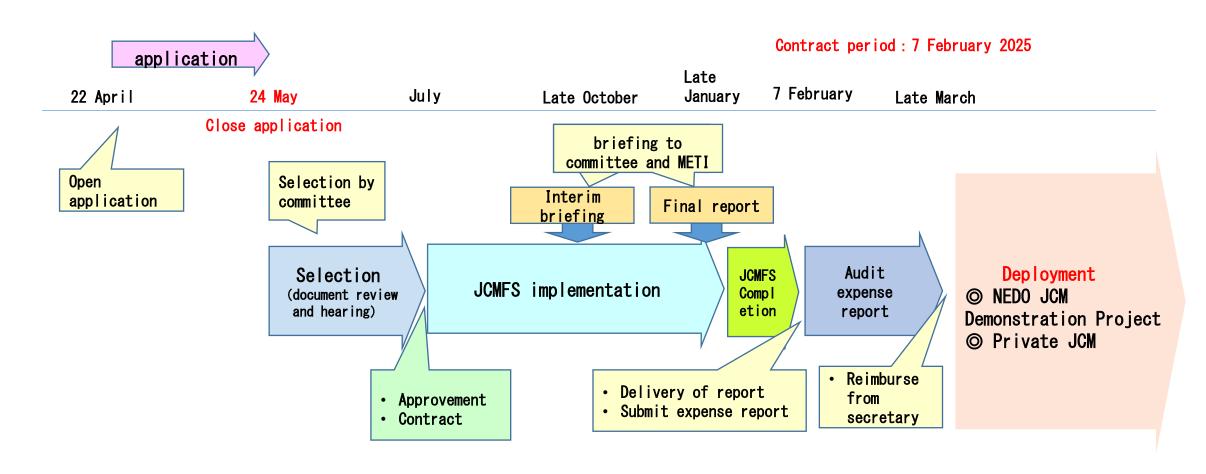
□ One of eligibilities for applicants :

Having a parent company in Japan.

An overseas subsidiary of a Japanese company whose parent company's head office locates in Japan is also able to apply.



6. Overall schedule (in case of 1st call application in FY2024)



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7. JCM FS records (FY2023)

Feasibility Studies and Detailed/Secondary Feasibility Study (as of October 2023)

25

Moldova:

 Bio-gasification using ethanol distillation residues in the Republic of Moldova (SDG Impact Japan Inc.)

Uzbekistan:

 Introduction of solar power generation and storage batteries, and boiler fuel conversion in public hospitals in Uzbekistan (Hanwa Co., Ltd.)

United Arab Emirates:

 Project to reduce GHG emissions in the United Arab Emirates (Emirate of Abu Dhabi) by introducing electric, hydrogen, and other low-carbon emission vehicles for public transportation mobility and by introducing a system for monitoring and improving the efficiency of operations (SMOC) (Zenmov Inc)

Thailand:

- Utilization of highly efficient dyeing technology in textile dyeing process (Asahi Kasei Corp.)
- Feasibility study for JCM project implementation of biomass boiler utilization with private sector funding (Tepia Corporation Japan)
- ★Feasibility Study for Demonstration of Fuel Cell (FC) Truck Technology for Low-Carbon Medium- and Long-Distance Overland Freight Transport (Toyota Tsusho Corporation)

Mongolia:

 Switching fuel for heating boilers to biochar in Ulaanbaatar (PEAR Carbon Offset Initiative, Ltd.)

Lao PDR:

Decarbonization of steam by systemization of hydrogen generators and hydrogen boilers in Lao PDR (Hitachi Zosen Corporation)

Vietnam:

- •Integrated energy management and data platform in industrial parks (Sojitz Corporation)
- Feasibility Study on JCM Credit Creation Through Fuel Conversion in Vietnam(erex Co., Ltd.)
- •★Demonstration Project on Wastewater Heat Recovery and Geothermal Heat Utilization Technology (Asano Taiseikiso Engineering Co., Ltd.)

Brazil:

•Conversion of production process of caustic soda and chlorine in Federative Republic of Brazil (AGC Inc.)

Chile:

 Chemical goods/synthetic fuel production using CO2 emitted from pulp mill as a raw material (Toyo Engineering Corporation)

Philippines:

 Study on GHG emission reduction and economic feasibility by the introduction of combined distributed renewable energy resources into poultry cooperatives in the Philippines(J-POWER)

Indonesia:

- Improvement of biodiesel yield from palm oil by utilizing AI (Kanematsu Corporation)
- The study of stock-based peatland water management technology for a stable supply of woody biomass(Sumitomo Forestry Co., Ltd.)
- ★Low carbon technology project by introducing plasma heating equipment in Indonesia (NIPPON STEEL ENGINEERING CO., LTD.)

Total as of 2023: 17 projects (11 countries)

Projects with "●" are Feasibility Studies by METI

Projects with "●★" are Detailed/Secondary Feasibility Study by NEDO

Source: Recent
Developments of the
Joint Crediting
Mechanism
(JCM)(Government
of Japan, May 2024)
http://carbon-markets.env.go.jp/document/20240517
JCM goj eng.pdf



7. JCM FS records (FY2024)

Approved in the 1st call in JFY2024

✓ AGC Inc.

(Chile)JCM FS on the Introduction of Solar Thermal Power Generation in the Mining Industry

- ✓ Asahi Kasei Corp (Thai) JCM FS on Energy-Efficient High-Definition Flexographic Printing Technology
- ✓ NTT COCOMO INC. (Philippines) JCMFS on the Installation of Solar Panels and Batteries and Optimal Power Control Technology for Wireless Base Stations
- ✓ Kubota Corp (Philippines) on Biomass Power Generation Utilizing Agricultural Residues
- ✓ Sojitz Corp (Uzbekistan) JCMFS on large-scale onshore wind power project
- ✓ Nippon Koei Co., Ltd.
 (Costa Rica) JCMFS on the Introduction of Battery Locomotives for Cargo Railway
- ✓ Fine Eco Solution Co., Ltd.

 (India) JCMFS on the Introduction of Distributed Power
 Generation Systems Utilizing Methane Gas Derived from Cow Dung

Approved in the 2nd call in JFY2024

- ✓ MITSUI & CO., LTD. (Kazakhstan) JCMFS on the Introduction of a Large-scale Onshore Wind Power Project
- ✓ JAPAN CARBON FRONTIER ORGANIZATION (Thai) JCMFS on Biochar Production and Utilization
- ✓ EX Research Institute Ltd. (India) JCMFS on Large-scale Introduction of Waste to Steam in Petrochemical Industry and Regional Transportation System of Urban Waste
- ✓ NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. (Brazil) JCMFS on Biomass Power Generation Project Led by Private Sector
- ✓ Sustainable Holdings Co., Ltd.
 (Papua New Guinea) JCMFS on Introduction of Hybrid Solar Power System
- ✓ NIPPON STEEL ENGINEERING CO., LTD. (India) JCMFS on Introduction of "Second-Generation Bioethanol Production Technology"
- ✓ Mitsubishi Corporation India Pvt. Ltd.
 (India) JCMFS on Compressed Bio Gas Technology

Approved in the 3rd call in JFY2024

✓ Cleansystem CO., LTD.

(Georgia) JCM FS on the Utilization of Waste-Derived Fuel



Individual consultation is also available.

- Individual consultations (TEAMS/Zoom etc) are available to discuss your JCM FS project ideas.
- Please contact the JCM FS secretariat after the seminar.
 (Please indicate your request for a consultation in the questionnaire after the seminar)



If you have a project idea that might be a candidate for JCMFS, please contact the secretariat!

- ■If you have a project idea that may be applicable to JCM FS, Please download the information sheet and send it to us [jcmfs-sec@tk.pacific.co.jp].
 - ➤ Information sheet
 - https://pckk.box.com/s/49i1n6mydjcyigh3wk8v0p1f538qrfpu

File: :【記入用】将来的なJCMFSに繋がる可能性のある案件候補情報, or

[Please fill in] Project information sheet for JCMFS



Useful Links

- ■JCM Official Website (incl. Rules and Guidelines, Methodologies for each partner country)
 - https://www.jcm.go.jp/
- ■About JCM
 - http://carbon-markets.env.go.jp/index.html
 - http://carbon-markets.env.go.jp/eng/
- ■Guidance for the Development of Private-Sector JCM Projects
 - · (Japanese)
 https://www.meti.go.jp/policy/energy environment/global warming/jcm/pdf/private secor JCM guidance all 202403.pdf
 - · (English) https://www.meti.go.jp/english/press/2023/0328_002.html
- ■2024 JCM-FS website for application (No English website)
 - https://jcmfs.meti.go.jp/

Thank you so much for allowing us to make a presentation.

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