

Call for Proposals for JCM Model Projects in FY2022

Guidelines for Submitting Proposals

(Tentative translation)

6 April 2022

Global Environment Centre Foundation (GEC)

Table of Contents

1. Purpose	1
2. Contents	2
(1) Overview	2
(2) Eligible Projects.....	3
(3) Countries of Priority.....	4
(4) Who Is Eligible to Participate?	4
(5) Requirements of International Consortium Members.....	5
(6) Costs Covered by Financial Support.....	7
(7) Amounts of Financial Support	8
(8) Maximum Percentage of Financial Support.....	8
(9) Implementation Period of Model Projects.....	8
(10) Schedule	9
3. Evaluation and Selection of Proposals	11
(1) Selection of Model Projects.....	11
(2) Evaluation of Proposals	11
(3) Announcement of Selected Model Projects.....	11
4. Procedure after Announcement of Selection.....	11
(1) Application for Contract of Financial Support.....	11
(2) Conclusion of Contract of Financial Support.....	11
(3) Points to be Considered for Starting Model Projects.....	12
(4) Changes in Financial Support and Implementation Plans.....	12
(5) Cost	12
(6) Reports to be Submitted and its Review.....	12
(7) Disbursement of Financial Support	13
(8) Management of Acquired Property.....	13
(9) Changes in Members of International Consortium	14
(10) Cancellation of Contract of Financial Support.....	14
(11) Penalty for Injustice Acts	14
5. Submission of Proposals	14
(1) How to Submit Proposals.....	14
(2) Period for Submission of Proposals.....	15
(3) Documents to be Submitted	15
(4) Remarks.....	16
(5) Account Application Form.....	17

(6) Information Session	17
(7) Questions and Answers	17
(8) Change of JCM Scheme to Co-Innovation.	17
6. Treatment of Information	18
7. Note	
(1) Presentations of Model Projects	18
(2) Other	18
Annex 1 Evaluation Criteria for Selecting JCM Model Projects in 2022	19
Annex 2 Categorization by applied technology type, Number of JCM model project by each country	25
Annex 3 Conditions for Adoption by Technology	26

1. Purpose

Japan establishes and implements the Joint Crediting Mechanism (hereinafter referred to as “the JCM”) in order to both appropriately evaluate contributions from Japan to greenhouse gas (GHG) emission reductions or removals in a quantitative manner achieved through the diffusion of decarbonizing technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions in developing and other countries, to use them to achieve Japan’s NDC (Nationally Determined Contribution).

Starting from Mongolia in January 2013, Japan has established the JCM with 17 partner countries (Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and Philippines) as of 6 April 2022.

In order to support the implementation of candidate JCM projects, Ministry of the Environment, Japan (hereinafter referred to as “MOEJ”) has been implementing the “JCM Model Projects (hereinafter referred to as “model project”),” which includes collaboration with projects supported by the Japan International Cooperation Agency (JICA) and government-affiliated financial institutions.

The purpose of this model project is to financially support the implementation of projects which reduce GHG emissions by utilizing leading decarbonizing technologies in developing and other countries, and in return, to acquire JCM credits for achievement of Japan’s GHG emission reduction target. Moreover, along with the Infrastructure System Overseas Development Strategy 2025 (Economic Cooperation Infrastructure Strategy Council in December 2020), the Decarbonization Infrastructure Initiative (MOEJ in June 2021), the Plan for Global Warming Countermeasures (Cabinet Decision in October 2021), and Implementation of Article 6 following COP26 (MOEJ in November 2021), etc., the JCM model project aims to contribute to global GHG emission reductions through the diffusion of leading decarbonizing technologies while considering the needs of the partner countries.

In the fiscal year 2020, a scheme named “JCM Eco Lease Scheme” was introduced by MOEJ for further promotion of the model projects. This new scheme has an advantage in reducing the reporting burden of representative participants with shorter monitoring period and simple proposal document.

Unique rules and conditions applied to the JCM Eco Lease Scheme are explained in the related chapters.

In FY2022, Call for Proposals of Program to Demonstrate Decarbonizing Technology for Realizing Co-Innovation (hereinafter referred to as “Co-Innovation”) starts at the same time as Financing Programme for JCM Model Projects. Depending on the content of the proposal, applicants will be able to change to Co-Innovation even after the submission of proposal.

2. Contents

(1) Overview

Participants in the model project shall implement a project to reduce GHG emissions utilizing leading decarbonizing technologies, and also shall conduct measurement, reporting and verification (MRV) of GHG emission reductions. In a JCM partner-country, participants shall conduct the following procedures of their relevant project for the issuance of JCM credits following to 2. (5) Requirements of International Consortium Members.

(a) Application for registration as JCM Project:

Participants shall apply their relevant project to be registered as a JCM project, including developing a Project Design Document (PDD), conducting a local stakeholder consultation (LSC) as a part of development of PDD, and cooperating with a Third-Party Entity (TPE) which implements validation of their relevant project. In principle, application for registration should be conducted within 1 year from the start of the operation of the facilities/equipment introduced by the project. In order to apply for registration of JCM project, it is necessary to develop an appropriate JCM methodology approved by the Joint Committee. Participants shall develop a JCM methodology by themselves or cooperate with JCM methodologies developers, by providing necessary information for the development of JCM methodology(ies) which is applicable to the relevant project, etc. In the JCM Eco Lease Scheme, participants shall not develop new methodology(ies). In principle, participants can propose a project when already approved or proposed JCM methodology(ies) is available.

(b) Monitoring

Participants shall conduct monitoring to quantitate the effects of the facilities/equipment on GHG emission reductions based on a MRV methodology approved or expected to be approved by the Joint Committee. And participants shall report the results and operation of the facilities/equipment to MOEJ on an annual basis until the end of legal durable years of the facilities/equipment as stipulated by the Japanese law, under the condition that the JCM bilateral document is valid for the partner county. Additionally, if there is a period during which the reduction amount cannot be measured due to the responsibility of the participants, that period will be added to legal durable years. Please note that MOEJ may share the results of monitoring with partner country government.

(c) Request for Issuance of JCM Credits

Based on the approved JCM methodology(ies), participants shall request for issuance of JCM credits by using the monitoring results. The issuance includes development of a monitoring report, verification by a TPE, and submission of “JCM Credits Issuance Request” to a JCM Joint Committee. However, this shall not apply in the case that participants are not able to request for issuance due to the bilateral considerations. Also, the participants shall deliver the

issued JCM Credits with the percentage decided by the Ministry of the Environment, Japan to the account of Japanese government.

Participants shall request for issuance of JCM credits for emission reductions achieved from the start of commercial operation to the end of legal durable years, under the condition that the JCM bilateral document is valid, including its extension period. For example, if the expiry of JCM bilateral document is extended from 2020 to 2030, participants shall request issuance of JCM credit for emission reductions achieved by 2030.

The first request for credit issuance shall be conducted within 1 year from the registration of the JCM project in principle (except the situation that the issuance cannot be realized due to the situation of bilateral negotiation, etc.). After the first request, participants may request at once for issuance of JCM credits for emission reductions achieved during several years. But if the legal durable years of the facilities/equipment ends, the request shall be conducted within 1 year, additionally if the legal durable years of the facilities/equipment ends after 2031, they shall request the issuance in 2031 or earliest timing after 2032 for emission reductions achieved from 2021 to 2030. If necessary, request for credit issuance are required to realize before 2030.

* For Japanese legal durable years, please refer to the website below (Japanese only):

<https://elaws.e-gov.go.jp/document?lawid=340M50000040015>

In case of the JCM Eco Lease scheme, the monitoring period is equal to the leasing period, which is at least five years.

* Please note that costs related to (a) through (c) are not covered by model project. However, if MOEJ recognizes the necessity, the costs may be supported by MOEJ for development of methodologies, Project Design Documents (PDDs) and monitoring reports, and validation/verification.

(2) Eligible Projects

A project eligible for the model project shall satisfy the requirements from (a) to (e) listed below:

- (a) 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;
- (b) Projects contribute to realization of SDGs (Sustainable Development Goals). The installation and operation of the facilities/equipment shall comply with the relevant laws and regulations of the partner country and international practices and guidelines regarding the environmental and human rights protection.

- (c) Reduction of GHG emissions achieved by the projects can be quantitatively calculated and verified; and
- (d) Facilities/equipment installed by the projects do not receive any other financial support by the Government of Japan.
- (e) If the technology to be adopted is a technology mentioned in Annex 3 “Conditions for Adoption by Technology” in this guideline, the technology shall meet its conditions.

(3) Countries of Priority

The model project shall prioritize the following 17 partner countries that have already established the JCM (as of 6 April 2022). Also, project proposals in the Indo-Pacific region (specifically Asia and Island regions) and African region will be received on the premise that adoption is considered in parallel with bilateral negotiations for new partner countries, based on the Implementation of Article 6 following COP26 (MOEJ in November 2021):

Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Vietnam, Laos, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and Philippines

(4) Who Is Eligible to Participate?

A participant that is entitled to request and receive financial support under the model project shall satisfy the requirements (a) to (g) listed below:

- (a) A representative participant of the model project shall be a Japanese entity which is:
 - i. a private company,
 - ii. an independent administrative institution,
 - iii. an incorporated association/foundation, or
 - iv. any organization admitted as appropriate by GEC with approval from MOEJ
- (b) A participant described in (a) shall be the representative entity of an international consortium.

Note 1: International consortium is an association (no legal personality) that consists of a Japanese entity mentioned in (a) and a foreign entity(ies), etc., with the objective of effectively implementing the project.

Note 2: Application for the model project shall be submitted by the representative participant. Member(s) of the international consortium other than the representative participant is called as a partner participant(s).

Note 3: Unless GEC approves, the representative participant and a partner participant(s) cannot be changed after the selection of project.

Note 4: The representative participant of the JCM Eco Lease Scheme must be a leaser.

- (c) A participant shall have developed structure for the implementation of the eligible project and have technical capacity to appropriately implement the eligible project;

- (d) A participant shall have a financial basis to bear the costs required to appropriately implement the eligible project;
- (e) A participant shall have adequate management structures and handling capacity for accounting and other administrative work related to the eligible project;
- (f) A participant shall explain the contents, effect on GHG emission reductions, details of the cost, investment plan, etc. of the eligible project;
- (g) A participant shall take a pledge regarding the exclusion of any organized crime groups (*boryokudan* in Japanese).

(5) Requirements of International Consortium Members

- (a) Japanese entity as a representative participant of an international consortium is responsible for the followings:
 - i. To apply for the model project,
 - ii. To manage the progress in the project, developing the project implementation plan, and acting as the contact entity for accounting and other administrative work related to the project,
 - iii. To introduce the leading decarbonizing technologies,
 - iv. To purchase, install and do commissioning of the facilities/equipment during the construction period, and managing the utilization of facilities/equipment according to the purpose of the model project for legal durable years of the facilities/equipment as stipulated by the Japanese law,
 - v. To return the financial support resulting from violations of the Financing Regulations by any of the partner participants.
- (b) All members of the international consortium are responsible for the followings:
 - i. To cooperate with JCM methodology developers by providing information required to develop an applicable methodology to the project for GHG emission reductions;
 - ii. To cooperate with TPEs by providing materials and information required to efficiently conduct validation of the abovementioned project and verification of GHG emission reductions at the project site;
 - iii. To reduce, monitor and calculate GHG emissions by utilizing the facilities/equipment with leading decarbonizing technologies.
 - iv. To estimate the GHG emission reductions by the project, and to report it to MOEJ annually until the end of the legal durable years of the facilities/equipment as stipulated by the Japanese law, which is unique to each project;
 - v. To request the Joint Committee to issue credits and take necessary actions such as application for the project registration by the Joint Committee set up or to be set up by the Governments of Japan and JCM partner country;

- vi. To deliver to the account of Japanese government the JCM credits with the percentage decided by the Ministry of the Environment, Japan, corresponding to emission reductions achieved by the project for the abovementioned legal durable years;
- vii. To manage the facilities/equipment with due care of a prudent manager for their legal durable years as stipulated by the Japanese law in order to realize their efficient operation in accordance with the purpose of the financial support even after the completion of the model project.
- viii. To continue the above obligations from i. to vii, even in such a case where changes to consortium members are approved.

(c) Responsibility of consortium member who applies for equipment lease.

If a consortium member (lessor) provides equipment lease to another consortium member (lessee), a draft lease contract and details of lease calculation shall be submitted to GEC as a part of application documents to certify that the amount of financial support provided under this program is deducted from the amount of the equipment lease. If its lease period expires before its legal durable years expire, the lessor shall maintain the equipment until the end of legal durable years by extending the lease contract or transferring the equipment to lessee.

(d) Cross-border installment sales

If a consortium member sells equipment to the other consortium member through cross-border installment sales. (Note: “Cross-border installment sales” refer to deferred payment sales or installment sales that are carried out across national borders.) If the ownership is transferred from the beginning of the transaction, details of instalments calculation shall be submitted to GEC as a part of application documents to certify that the owner of the equipment who implements the project enjoys the benefit of the financial support by the JCM Model Project. The seller can charge interest for such installment payments. Also, please note the followings:

- i. If a representative participant carries out the installment sale, the party is responsible for the requirements as mentioned in (a) above.
- ii. If an entity other than a representative participant located in Japan or a third country carries out the installment sale, the party needs to be a member of the international consortium, at least until the buyer completes its payments.
- iii. In both i. and ii. above, the basis for calculating the costs covered by financial support is considered as fixed when the seller procures an equipment from a party outside the international consortium

(e) JCM Eco Lease Scheme

Participants shall submit documents (breakdown of lease fee) to prove that the equivalent amount to the financial support is reduced from the lease contract (draft) submitted with the proposal.

(6) Costs Covered by Financial Support

The model project covers the following costs. The financial support is limited only to those costs that can be verified as having been spent for implementation of eligible projects. 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.

- (a) Cost of main construction work
- (b) Cost of ancillary work
- (c) Cost of machinery and instrument
- (d) Cost of survey and testing
- (e) Cost of facilities/equipment (including monitoring equipment)
- (f) Cost of administrative work; and
- (g) Other necessary costs approved by GEC

[Costs NOT covered by financial support]

The following costs are not covered by the model project:

- (a) Cost to remove existing facilities/equipment (including miscellaneous expenses related to removal costs)
- (b) 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.
- (c) Civil engineering work and construction of building (excluding structures that directly contribute to energy-related CO₂ emission reductions)
- (d) 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
- (e) Spare parts (excluding those used for testing and commissioning)
- (f) Cost related to on-site inspections and writing reports submitted to GEC as part of the model project
- (g) Cost of forward exchange contract and remittance charge
- (h) Cost related to land acquisition

<Exclusion of profits when procuring in-house products>

In model projects, if the financial support targets costs which include expenses related to the procurement of the participants company's own products, etc., it is fine to trade at the market price. However, it is considered as inappropriate for the purpose of financial support to include the benefits of participants in the covered costs. Therefore, when procuring the company's own products, etc. of the participants company, the amount is recorded as "at cost" (manufacturing cost of the procured product, etc.*).

* If it is difficult to calculate the manufacturing cost due to the type of business of the participants company, cost with other reasonable explanations may be acceptable.

(7) Amounts of Financial Support

Total amount of the budget for the model project is expected to be 17.1billion yen for 3 years. Suggested size of one model project is, within 2 billion yen in terms of the amount of financial support. In principle, a total of 500 million yen for three years is suggested for the budget of one model project under JCM Eco Lease Scheme.

Maximum amount of financial support shall be calculated by the total amount of eligible costs multiplied by the percentage listed in (8).

Maximum amount of financial support for the JCM Eco Lease Scheme shall be calculated based on costs of leasing (costs of facilities/equipment and the relevant lease interest) multiplied by the percentage of the financial support, which is 10%.

In addition, actual amount of financial support shall be determined based on the cost which is verified as actually spent for implementation of the project and be indicated in a notice to a representative participant. There is no disbursement prior to the spending of cost.

(8) Maximum Percentage of Financial Support

Maximum percentage of financial support shall be determined according to the number of already selected project(s) using a similar technology in each partner country. Please refer to Annex 2 “Categorization by applied technology type, Number of JCM model project by each country” for actual number of already selected projects.

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

In case of introducing multiple technologies, the upper percentage of financial support is determined for each technology.

The uniform percentage of financial support for the JCM Eco Lease Scheme is 10%.

Maximum amount and percentage of financial support will be determined by the contract of financial support.

(9) Implementation Period of Model Projects

The implementation period of the model projects, precisely the period for installing facilities/equipment and completing all the related payments, shall be between the date indicated on

the Notice of Contract of Financial Support and 31 January 2025. Contract or purchase order prior to or after this period is not covered by the financial support of this model project.

(10) Schedule

Date	Items
Japanese Fiscal Year 2022	
Wednesday, 6 April 2022	Announcement of call for proposals (<i>open all year round</i>)
Monday, 9 May 2022	Deadline of submission for the 1st selection of model projects
From Tuesday, 10 May 2022 Within 4 weeks after the closing of submission	Proposal review Interview with applicants (<i>to be conducted in Tokyo</i>)
Around the end of June	Preliminary selection of model projects (<i>based on the evaluation of GEC</i>) Information session for participants of selected projects
Within 30 days after the date of preliminary selection	Submission of application documents for Contract of Financial Support
Within 60 days after the date of preliminary selection	Notice of Contract of Financial Support issued to Japanese representative participants (<i>based on the evaluation of GEC</i>) Implementation of model projects
Friday, 29 July 2022	Deadline of submission for the 2nd selection of model projects
From Monday, 1 August 2022	Proposal review
	Review of proposals submitted after 9 May 2022 will start after the completion of the 1st selection. GEC will inform the results within 2 months after starting the review.
Wednesday, 30 November 2022	Deadline for submitting proposals (application acceptance may be closed before the deadline, depending on the availability of remaining budget)
End of February 2023	[1-year project] Completion of model projects (<i>including commissioning and payment for the installed equipment</i>)
February - March 2023	[1-year project] <ul style="list-style-type: none"> - Submission of final reports (due by 10 March 2023) - Inspection by GEC (document review and on-site inspection, etc. if necessary) [2- or 3-year projects]

	<ul style="list-style-type: none"> - Midterm inspection by GEC (document review and on-site inspection, etc. if necessary) - Submission of midterm reports (due by 10 April 2023) <i>(A member of the international consortium must accompany the inspection, particularly the representative participant must accompany)</i>
Japanese Fiscal Year 2023	
April 2023	Disbursement of financial support, for the cost spent in Fiscal Year 2021 <i>(based on the examination of GEC)</i>
End of February 2024	[2-year project] Completion of model projects <i>(including commissioning and payment for the installed equipment)</i>
February - March 2024	<p>[2-year project]</p> <ul style="list-style-type: none"> - Submission of final reports (due by 10 March 2024) - Inspection by GEC (document review and on-site inspection, etc. if necessary) <p>[3-year projects]</p> <ul style="list-style-type: none"> - Midterm inspection by GEC (document review and on-site inspection, etc. if necessary) - Submission of midterm reports (due by 10 April 2024) <i>(A member of the international consortium must accompany the inspection, particularly the representative participant must accompany)</i>
Japanese Fiscal Year 2024	
April 2024	Disbursement of financial support, for the cost spent in Fiscal Year 2023 <i>(based on the examination of GEC)</i>
End of January 2025	[3-year project] Completion of model projects <i>(including commissioning and payment for the installed equipment)</i>
February - March 2025	<p>[3-year project]</p> <ul style="list-style-type: none"> - Submission of final reports (due by 10 March 2025) - Inspection by GEC (document review and on-site inspection, etc. if necessary) <p><i>(A member of the international consortium must accompany the inspection, particularly the representative participant must accompany)</i></p>
March 2025	Disbursement of financial support <i>(based on the examination of GEC)</i>

3. Evaluation and Selection of Proposals

(1) Selection of Model Projects

GEC conducts call for request for proposals and evaluates the submitted proposals according to Annex 1 “Evaluation Criteria for selecting JCM Model Projects” (hereinafter referred to as “Evaluation Criteria”). After the assessment and hearings, in consultation with MOEJ, GEC will select model projects within the budget.

(2) Evaluation of Proposals

Firstly, proposals are assessed whether they satisfy all the criteria in “(1). Eligibility Review” of Evaluation Criteria. For those proposals that pass the first round of assessment, GEC will conduct hearings based on the criteria in “(2). Assessment Review” of Evaluation Criteria. Please note that GEC may request additional documents during the evaluation. Interviews will be conducted as necessary after receiving the proposal.

(3) Announcement of Selected Model Projects

GEC will issue a notice to participants of selected model projects, and the information about these selected projects (name of Partner Country and representative participant, title of project, and expected GHG emission reduction, etc.) are publicly posted on MOEJ and GEC’s websites.

GEC will also inform participants that their model projects are not selected. Please note that details of evaluation or reasons for not selecting the projects cannot be disclosed.

4. Procedure after Announcement of Selection

(1) Application for Contract of Financial Support

Participants of selected model projects shall submit application documents for Contract of Financial Support between the participants and GEC. If these documents are not fully developed, the application is required to revise or resubmit.

(2) Conclusion of Contract of Financial Support

GEC shall examine the contents of the submitted documents and conclude Contract of Financial Support with the participants when these documents are appropriately completed.

In case the Contract of Financial Support cannot be concluded due to the reasons not attributable to GEC within 60 days after the date of notice of a selected model project or within Japanese fiscal year, GEC possibly cancels the selection of the model project.

Please note that GEC normally takes 30 days for the examination. Hence, participants are recommended to complete their documents within 30 days after the notice of selected model projects.

(3) Points to be Considered for Starting Model Projects

Starting a model project is possible only after the Contract of Financial Support is concluded.

Participants should note the following points.

- (a) Regarding the necessary contracts to implement the model project between participants and other entities, the date of concluding contracts must be later than the date of concluding Contract of Financial Support.
- (b) Regarding the abovementioned contracts, participants should select other entities through competition principle as long as it is possible.
- (c) For the abovementioned contracts, payments to other entities should be completed by end of each fiscal year.

(4) Changes in Financial Support and Implementation Plans

1. If participants need to change implementation plans and then financial support due to some reasons, participants need to submit documents applying for the change in financial support and obtain an approval from GEC in advance.
2. Even though there is no changes in financial support, participants shall submit documents applying for the changes described below and obtain the approval from GEC.
 - 1) Modifying the proportion of cost allocated in each category except for changes within 15 % of the lowest cost among categories to be modified.
 - 2) Changing the implementation plan except the following minor changes.
 - a) No changes in the purpose of the project and change to increase efficiency based on creativity by participants
 - b) Minor changes in the implementation plan not related to the purpose and the efficiency of the project
 - c) No changes in the amount of GHG emission reductions and estimation of JCM credits

(5) Cost

For the cost covered by the model project, participants shall prepare and maintain account books. The books shall separate other costs which are not covered by the model project, and record amount of income, expense and its usage, attached with relevant evidences of such income and expense.

The account books and evidences shall be stored for 5 years after the model project is completed.

(6) Reports to be Submitted and its Review

- (a) Reports at the end of each fiscal year
Participants shall submit reports at the end of each fiscal year to GEC, precisely by 10 April.
- (b) Report for completion of model project

Participants shall submit a report for completion of model project within 30 days after the completion of model project, or by 10th March of each year, whichever comes first. All payments by participants to other entities in line with respective contracts shall be completed by the submission of report for completion of model project.

When participants submit a report for completion, they shall complete the payment, according to the construction work, and its result and shall attach its invoice and receipt.

When a report for completion is submitted by participants, GEC conducts a document review and, if necessary, inspection, etc., to confirm whether the results of the project conform to the content of the contract of financial support. When GEC considers that the content is appropriate, GEC determines the amount of financial support to be delivered and inform to the participants by notification of the amount.

(7) Disbursement of Financial Support

GEC will pay financial support to participants in response to the request submitted by the participants by 30 April of the following Japanese fiscal year after on-site visits for reviewing the requests. Also, when participants request for the intermediate payment, the same process will be conducted for the completed portion of the model project.

The final payment shall be realized to the participants by subtracting the total amount of the intermediate payment from the total amount of financial support. However, if the total amount of the intermediate payment exceeds the total amount of financial support, the excess amount shall be returned.

(8) Management of Acquired Property

Participants shall prepare a property ledger for the acquired property or its gained value through the model project (hereinafter referred to as “property”), in order to properly manage such property and report the status of property to MOEJ on an annual basis. Participants shall achieve GHG emission reductions by utilizing the facilities/equipment after the model project is completed. If the achievement is impossible, participants shall explain the reason in the report. When participants plan to use, sell, exchange, lend, collateralize, dismantle or dispose property (only equipment or facility with a unit value of 500,000 yen or more) for the irrelevant purpose* to the model project, participants shall seek an approval by GEC prior to these actions. Participants shall provide necessary information to MOEJ, if they are requested. When participants plan to collateralize the property, participants shall seek an approval by GEC prior to the action. Please note that such actions may result in return of financial support. In addition, even if the property is dismantled or disposed of upon the approval by GEC, participants shall request credit issuance for the emission reductions achieved before the action is taken, according to the 2(1)(c) of this guidelines.

When participants plan to use, sell, exchange or lend property among members of the international

consortium in line with the purpose of the model project, participants shall report to GEC prior to these actions taken for the property.

All of the equipment and facility installed through the model project must attach a sticker showing that they are part of the JCM Model Project by MOEJ.

* Purpose and content of the model project described in the project implementation plan of the application documents and the implementation report of the final report

(9) Changes in Members of International Consortium

In case the name or address of the participants is changed, or when the participants are merged with other entities within legal durable years from the completion of the model project, the representative participants shall report the change to GEC without delay.

(10) Cancellation of Contract of Financial Support

When participants corresponds to one of the following actions, Contract of Financial Support may be cancelled fully or partially. Participants shall return fully or partially the received financial support. However, in case of (d), this condition does not apply to the portion of the project that has already passed.

- (a) To violate relevant Laws, Financing Regulations, or order by GEC
- (b) To use the financial support for irrelevant purpose to model project
- (c) To act inappropriately
- (d) When it is no longer necessary to continue all or part of the model project due to a natural disaster or other changes in circumstances that occurred after the conclusion of Contract of Financial Support, or when the model project cannot be implemented due to other reasons (except for reasons attributable to participants).

(11) Penalty for Injustice Acts

When false application, receipt of other financial support by the Government of Japan, or any violations to other Laws is identified, Contract of Financial Support may be cancelled and/or return of financial support may be ordered.

5. Submission of Proposals

(1) How to Submit Proposals

Proposals must be submitted electronically. Proposals submitted by postal mail will be rejected in principle. Proposals must be written in Japanese.

To submit proposals electronically, Electronic Application Account is required. Please apply using

the Account Application Form. Application process is as follows.

- (a) Please apply for an Electronic Application Account using the Account Application Form on our website.
- (b) Account information and login instructions will be sent to applicants once the Account is issued.
- (c) Please login to the Electronic Application System using the Account information and submit proposals electronically. Please enter necessary information on the Electronic Application page. Documents to submit are to be stored in the cloud storage exclusive for the application.
- (d) Once proposals have been submitted by clicking the Apply button, applicants will no longer be able to edit.
- (e) GEC will notify applicants after proposals have been submitted successfully.

(2) Period for Submission of Proposals

From Wednesday, 6 April 2022 to Wednesday, 30 November 2022 (12:00 JST)

- * Application is open all year round. Its acceptance may be closed before the deadline, depending on the availability of remaining budget.
- * Deadline of submission for the 1st selection of model projects is Monday, 9 May 2022 (12:00 JST).
- * Deadline of submission for the 2nd selection of model projects is Friday, 29 July 2022 (12:00 JST).

(3) Documents to be Submitted

Following documents must be included in a proposal. If a format is specified, please download the format from our website of this call for proposals (available only in Japanese).

- (a) (c) and (e) can be created by entering necessary information on the Electronic Application page. Other documents should be submitted as attachments. Form No.1 Application Form
- (b) Form No.2 Declaration by Representative Participant
- (c) Form No.3-00 Project Implementation Plan **【Input data on the Electronic Application page】**
 - * Please write within ten (10) pages. Supporting documents must be included according to the Checklist (Form No. 6).
- (d) Form No.3-16 Project Idea Note for the JCM Model Project
 - * Without prior notice to a representative participant, this document (Form No.3-16) may be shared with government officials of a partner country where a project will be implemented. Also, we may forward questions from the government officials to the applicant and request the answers.
- (e) Form No.4 Budget (including supporting documents, such as quotations of the budget) **【Input data on the Electronic Application page】**

- (f) Company information (such as company brochure) and articles of incorporation of both representative participant and partner participant(s)
 - * If the company is not established yet at the timing of application, participants need to submit drafts of articles of incorporation for the company which was already approved or will be approved in the future. However, it is necessary for participants to submit documents to show the description of the business in case that drafts are not prepared yet.
- (g) Financial statement of both representative participant and partner participant(s) (audited one for the latest3 consecutive years)
- (h) International Consortium Agreement
 - Draft document of International Consortium Agreement and status toward signing the agreement. Signed agreement must be submitted at the timing of applying for Contract of Financial Support.
- (i) Form No.5 Agreement on the Allocation of JCM Credits
 - * Signed agreement must be submitted.
- (j) Form No.6 Checklist for Submission of Proposal
- (k) Other supporting documents

* Attached documents should be saved in numerical order with a file name according to the number of Checklist [Form 6].

In addition, during the evaluation process, applicants may be contacted by phone or e-mail if necessary. In that case, additional documents may be required to submit.

(4) Remarks

Please note the following points for submitting application.

- (a) Please submit the application electronically. The deadline is noon (12:00 JST) of each closing date of submission.
- (b) Call for proposals will end when the amount of financial support for the selected projects reaches the budget limit, so please submit the application promptly regardless of the deadline.
- (c) Before submitting the application in complete form, please check by different persons, according to the checklist [Form 6].
- (d) For documents written in a language other than English, it may complicate the examination if Japanese translation is not attached. Please attach Japanese translation to documents. For English documents, we may request for Japanese translation after receiving the application.
- (e) Since the application guidelines for this time have changed from the previous time of the application, even applicants who have applied in the past shall read this guideline and related documents carefully.

- (f) In principle, participants cannot change the application once submitted.
- (g) Proposal information submitted is used only for selection of projects.

(5) Account Application Form

Please find Account Application Form on our website: https://gec.jp/jcm/jp/apply_2022 (Japanese only)

(6) Information Session

From the perspective to prevent new coronavirus infection, the information session will be held as Webinar on Friday, 8 April 2022.

(7) Questions and Answers

- Reception method
Questions can be sent via e-mail: jcm-info@gec.jp. The subject of the e-mail should be "Question: Call for Proposals for JCM Model Projects in 2022".
- Reception period
Until 17:00 on Friday, 15 April 2022
- Answer
It will be posted on GEC's web page approximately 1 week after the reception period ends.

(8) Change of JCM Scheme to Co-Innovation.

- After applying for model project, if the proposal is considered as appropriate to apply for Program to Demonstrate Decarbonizing Technology for Realizing Co-Innovation in the selection process, it is possible to change the application for that program. In that case, the application will be withdrawn from call for model project.
- The application form for Program to Demonstrate Decarbonizing Technology for Realizing Co-Innovation can be easily prepared, since the application form for model project has a lot of common points. More information can be found in the guidelines for Co-Innovation. Application for Co-Innovation is not submitted electronically.
- Contact for Co-Innovation
Global Environment Centre Foundation - Tokyo Office
3rd Floor, Hongo Ozeki Bldg., 3-19-4, Hongo Bunkyo-ku, Tokyo, 113-0033, Japan
Att: Mr. Yamane, Mr. Kubo, Mr. Kojima
Email: inov@gec.jp

6. Treatment of Information

Documents including accounting documents and supporting documents (e.g. invoices, contracts, proof of payments) etc. and electronic data of these documents submitted to GEC in accordance with this Guidelines and Financing Regulations are treated with due care of prudent manager and used only for: evaluation of proposals; conclusion of Contract of Financial Support; and determination of amount of financial support.

7. Note

(1) Presentations of Model Projects

MOEJ will disseminate information of the overviews and results of the model projects to the world. Therefore, GEC will ask participants to share their photographs of facilities/equipment installed by the model projects which can be introduced to the public. Additionally, participants are encouraged to present their projects publicly by themselves, and participants should explain that the projects are implemented as JCM Model Projects funded by MOEJ.

(2) Other

In addition to this Guidelines, participants of the model project shall conform to the Act on the Regulation of Execution of Budgets Pertaining to Subsidies, etc. (Act No. 179 of 1955), the Order for Enforcement of said Act (Order No.255 of 1955), and Financing Regulations.

Please also refer to the JCM Model Project - Gender Guidelines.

Annex 1 Evaluation Criteria for Selecting JCM Model Projects in 2022

(Tentative translation)

4 April 2022

Global Environment Centre Foundation

1. INTRODUCTION

Based on No. 3 (6) of "Implementation Guidelines of Financial Support Project for Joint Crediting Mechanism" (hereinafter referred to as "Implementation Guidelines"), in order to select JCM Model Projects (hereinafter referred to as "model projects") in fair and transparent way, the Global Environment Centre Foundation (GEC) organized an external committee and established this evaluation criteria, which was approved by the committee.

Based on this set of criteria, GEC will consult with the Ministry of the Environment, Japan, and select model projects with consideration of technological distributions etc.

2. PURPOSE OF MODEL PROJECT

The purpose of model projects is to financially support parts of the implementation costs of projects (including collaboration with projects supported by the Japan International Cooperation Agency (JICA) or other institutions including government-affiliated financial institutions) which reduce GHG emissions in developing countries by utilizing advanced technologies of such private sectors including leading decarbonizing technologies, and in return seeks to acquire JCM credits for achievement of Japan's GHG emission reduction target. Moreover, along with the Infrastructure System Overseas Development Strategy 2025 formulated by Economic Cooperation Infrastructure Strategy Council in December 2020, the Decarbonization Infrastructure Initiative (MOEJ in June 2021), the Plan for Global Warming Countermeasures approved (Cabinet Decision in October 2021) and Implementation of Article 6 following COP26 (MOEJ in November 2021), etc., the JCM model projects aim to contribute to global GHG emission reductions, through the diffusion of leading decarbonizing technologies while considering the needs of the partner countries.

Additionally, from the perspective of promoting the Program to Demonstrate Decarbonizing Technology for Realizing Co-Innovation, projects that demonstrate the certainty of business development after the completion of the program and its predecessor program may receive preferential treatment.

3. OVERVIEW OF CRITERIA

Proposals for model projects will be reviewed based on the following criteria. (2) Assessment Review is conducted for applicants who satisfy all the eligibility criteria of (1) Eligibility Review.

(1) Eligibility Review

A proposal will be reviewed whether it meets the following eligibility criteria. When all these eligibility criteria are met, the proposal will proceed to the “(2). Assessment Review.” If any of these eligibility criteria are not met, the application will be rejected.

- 1) Does the applicant meet the criteria for an eligible participant?
The applicant shall meet 2. (4) in the “Guidelines for Submitting Proposals”.
- 2) Is the model project expected to reduce emissions of GHG including energy-related CO₂ through JCM?
 - The model project should be consistent with the climate change policies in the country where the project is implemented (hereinafter referred to as "partner and other countries").
 - The technology applied in the project shall reduce emissions of GHG including energy-related CO₂ (amount of emission reductions can be quantitatively calculated, the emission reductions is not the result of decreased activities, such as lower production, and the emission reductions from the project can be clearly separated from the emission reductions by other factors that may influence the emissions).
- 3) Does the financial support promote investment in projects* with leading decarbonizing technologies by private companies and others?
* In principle, it should not be a business related to thermal power generation using fossil fuels, except for equipment that effectively utilizes the heat generated during power generation and equipment that contributes to decarbonization such as carbon capture and storage (CCS).
- 4) Can the applicant objectively show the superiority of the decarbonizing technologies introduced in the model project? This means:
 - The evidence of their superiority including technologies of other companies, such as data or literature, should be available, or if there is data that demonstrates their high performance in energy saving standards, etc., of the partner and other countries.
 - If the technology to be adopted is a technology mentioned in Annex 3 “Conditions for Adoption by Technology” in this guideline, the technology shall meet its conditions.

- 5) Can the applicant objectively show that the decarbonizing technologies., are not adequately diffused in the partner and other countries so far?

- 6) Are the decarbonizing technologies internationally in practical use and can be introduced in the partner and other countries? This means:
 - The technologiesshould be realized in other project(s) (a track record of commercial operation or demonstration project etc. will be reviewed), or the facilities/equipment using the technology should be commercially manufactured (Catalogues, specification etc. will be reviewed).
 - Are equipment maintenance technologies and local support available in the partner and other countries?

- 7) Is there a high potential that the decarbonizing technologies will be diffused in the partner and other countries after this model project is implemented? Also, does the applicant have a concrete strategy to promote the technologies on a commercial basis?

- 8) Are GHG emission reduction calculation methodologies and monitoring methods appropriate?
 - In case the model project is going to introduce a technology that is similar to what was implemented in the past, does the project meet the eligibility criteria of approved JCM methodologies for the similar technology of the partner and other countries in which the project will be implemented? Please refer to documents published by GEC for details of the eligibility criteria.
 - If there is no methodology approved by JCM, is the reference emission amount and project emission amount calculated conservatively?
 - The monitoring method and implementation organization required to calculate GHG emission reductions are appropriate.

- 9) Is the expense for the model project appropriately estimated?
 - The expense should be estimated using the same or similar project implemented in the past; or the expense should be based on the actual design and specification.
 - The evidence for estimation of personnel expense and travel cost is clear and appropriate.

- 10) Is the model project consistent with the Infrastructure System Overseas Development

Strategy 2025 (Economic Cooperation Infrastructure Strategy Council in December 2020), the Decarbonization Infrastructure Initiatives (MOEJ in June 2021), the Plan for Global Warming Countermeasures (Cabinet Decision in October 2021) and Implementation of Article 6 following COP26 (MOEJ in November 2021), etc.,?

11) Does the model project adhere to the environmental and social legal system requirement?

The installation and operation of the facilities/equipment shall comply with the environmental laws and regulations of the partner country and refer to international practices and guidelines regarding the environmental protection (air pollution, water contamination, waste treatment, noise/vibration, ecosystem etc.).

12) Does it contribute to realization of SDGs (Sustainable Development Goals)?

It contributes to sustainable development and the realization of SDGs (*)and it complies with the gender guidelines.

* International goals from 2016 to 2030 described in the "2030 Agenda for Sustainable Development" adopted at the United Nations Summit in September 2015

13) Is the company taking the best possible measures to respect human rights (introduction of human rights due diligence process, dialogue with stakeholders, etc.) under its own responsibility in accordance with the Action Plan on Business and Human Rights (2020-2025) (the Inter-Ministerial Committee for Japan's National Action Plan on Business and Human Rights in October 2020) (see URL below)?

<https://www.mofa.go.jp/mofaj/files/100104121.pdf>

14) If the model project is implemented in collaboration with other project that JICA or other institutions including government-affiliated financial institutions provides equity or loan, can the applicant draw a clear line between the part covered by this financial support (applicable to the extent) and the part covered by ODA under projects of JICA or government-affiliated financial institutions?

15) The facilities/equipment introduced by the model project shall not receive any other financial support from the Government of Japan.

(2) Assessment Review

After passing the eligibility review, the proposal will be reviewed and scored using the following assessment criteria. The project in the following 17 partner countries which have already established the JCM will be prioritized (as of 4 April 2022) Also, project proposals in

the Indo-Pacific region (specifically Asia and Island regions) and African region will be received on the premise that adoption is considered in parallel with bilateral negotiations for new partner countries, based on the Implementation of Article 6 following COP26 (MOEJ in November 2021):

Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Vietnam, Laos, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and Philippines

A) Robustness of the project implementation (20 points)

- 1) Management and operational capacities of a representative participant and partner participant(s) to implement the project (10 points)
- 2) Status of the project implementation structure (including the decision on roles of each entity in the international consortium) (10 points)

B) Business Certainty (30 points)

- 1) Appropriateness of the project plan (including the schedule, decisions for the project location, concession and license for the project implementation, and status of concluding a Power Purchase Agreement in case of a power generation project). When projects require participants to participate in bidding to obtain the right of project implementation, effects by the financial support of the model project and the schedule for bidding must be submitted. (10 points)
- 2) Profitability of the project, including economic performance, forecast of cash flow and payback period (For a tentative indicator, the payback period is preferred to be 3 years or longer with the financial support.) (10 points)
- 3) Appropriateness of financial plan (The amount of investment by each entity is clearly stated, including the certainty of financial arrangement.) (10 points)

C) Total emission reductions of GHGs (including energy-related CO₂) (25 points)

Total emission reductions [tCO₂eq]

= GHG emission reductions per year [tCO₂eq/y] × legal durable years of the facilities/equipment as stipulated in the Japanese law [y]

D) Cost-effectiveness of emission reductions of GHGs in terms of financial support (25 points)

Cost-effectiveness for GHG emission reductions [JPY/ tCO₂eq]

= Amount of financial support [JPY] / Total emission reductions of GHGs [tCO₂eq]

Cost-effectiveness of financial support to reduce 1 ton of GHG emissions will be

evaluated. In principle, cost-effectiveness of GHG emission reductions should be 4,000 JPY/tCO₂eq or lower. However, if the number of similar technological projects in a partner country is 5 or more in Annex 2 “Categorization by applied technology type, Number of JCM model project by each country”, its cost-effectiveness is expected to be 3,000 JPY/tCO₂eq or lower (Solar power projects in Vietnam, Chile, Palau and the Philippines and chiller for air conditioning projects in Vietnam and Thailand). If the number of similar technological projects in a partner country is 10 or more, the cost effectiveness is expected to be 2,500 JPY/tCo₂eq or lower (hydropower projects in Indonesia) . If the number of similar technological projects in a partner country is 20 or more, the cost effectiveness is expected to be 2,000 JPY/tCo₂eq or lower. (Solar projects in Thailand) .

For tentative indicators, the cost effectiveness guide for a solar power project (except Thailand) is 2,500JPY/tCo₂eq and for a hydropower project is 500JPY/tCo₂eq.

Please refer to the relevant Japanese law for legal durable years. However, in case of the JCM Eco Lease scheme, monitoring period is equal to the lease period of the project.

E) Additional points (10 points)

- Projects that completed the Program to Demonstrate Decarbonizing Technology for Realizing Co-Innovation and its predecessor program.
- Projects that introduce following leading decarbonizing technologies that are among the focus areas for JCM according to the Infrastructure Initiative for Decarbonization (MOEJ in 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)

* * *

Annex 2 Categorization by applied technology type, Number of JCM model project by each country

(As of 6 April 2022)

Annex 2 Categorization by applied technology type, Number of JCM model project by each country

6 April 2022

If one JCM model project applies several technologies, the numbers are counted for each technology.

Percentage of Financial Support : White 0 project = Up to 50% Yellow 1-3 project(s) = Up to 40% Orange more than 4 projects = Up to 30%

Sector	Technology	JCM Methodology	Mongolia	Bangladesh	Ethiopia	Kenya	Maldives	Viet Nam	Lao PDR	Indonesia	Costa Rica	Palau	Cambodia	Mexico	Saudi Arabia	Chile	Myanmar	Thailand	Philippine		
			MN	BD	ET	KE	MV	VN	LA	ID	CR	PW	KH	MX	SA	CL	MM	TH	PH		
1. Energy Efficiency	Air Conditioning System	VN_AM006, ID_AM004						4		1								1	1	7	
	Chiller	BD_AM001, VN_AM011, ID_AM002, CR_AM002, KH_AM003, TH_AM003, TH_AM005		2				5		4	1		1						5		18
	Refrigerator	ID_AM003, MM_AM002, TH_AM006, TH_AM011, TH_AM013									1							2	4		7
	Absorption Chiller Using Waste Heat	ID_AM022									2								2		4
	Swirling Induction Type Air-conditioning System	TH_AM006																	1		1
	Fridge and Freezer Showcase	ID_AM008, TH_AM014									1								1		2
	Boiler	MN_AM002, ID_AM015, MM_AM003, TH_AM010	2					2			3				1			2	3		13
	Heat Medium Boiler										1										1
	Double Bundie-type Heat Pump	VN_AM012, ID_AM010						1			1								1		3
	Water Heater Using Waste Heat	CR_AM003										1									1
	Waste Heat Recovery System	TH_AM012																	2	1	3
	Heat Exchanger																		1		1
	Transformer	VN_AM005, LA_AM003						4	1												5
	LED Lighting	ID_AM005, ID_AM020									2								1		3
	LED Lighting with Dimming System	ID_AM018, KH_AM001							2		1			1							4
	Pump	VN_AM013						1													1
	Air Compressor	TH_AM002						1											1		2
	Aeration System	ID_AM024									1										1
	Regenerative Burners	ID_AM009									1										1
	Gas Fired Furnace	VN_AM010						1													1
	Gas Fired Melting Furnace																		1		1
	Air Conditioning Control System	VN_AM015						1											1		2
	Frequency Inverter for Pump	KH_AM005						1						1							2
	Loom	BD_AM003, ID_AM011, TH_AM004		1							2								1		4
	Old Corrugated Cartons	ID_AM012									1										1
	Battery Case Forming Device	VN_AM009						1													1
	Electrolyzer in Chlorine Production	SA_AM001, TH_AM015														1			1		2
	Wire Stranding Machines	VN_AM014						1													1
Autoclave	ID_AM028									2										2	
Multi-effect Distillation System													1							1	
Injection Modling Machine	ID_AM025									1										1	
2. Renewable Energy	Solar Power Plant	MN_AM003, BD_AM002, KE_AM002, MV_AM001, VN_AM007, LA_AM002, ID_AM013, CR_AM001, PW_AM001, KH_AM002, MX_AM001, CL_AM001, TH_AM001, PH_AM002	4	1	1	1	1	9	4	4	1	5	4	2	1	7	1	20	7	73	
	Solar Power Plant with Battery	MV_AM002, ID_AM017, CL_AM002								1								1		2	
	Small Hydropower Plant	KE_AM003, ID_AM019, ID_AM021, PH_AM001								10									2	12	
	Wind Power Plant																		1	1	
	Geothermal Power (Binary)																		1	1	
	Geothermal Power (Flush)																		1	1	
	Biomass Power Plant	ID_AM027, MM_AM004									1		1			1	1			4	
	Biogas Power Plant																		1	1	
	Biogas boiler							2											1	3	
	Biogas boiler																	1		2	
Biomass Co-generation	ET_AM003						1											1	2		
3. Effective Use of Energy	Power Generation by Waste Heat Recovery	ID_AM001, MM_AM005, TH_AM007								1							1	1		3	
	Gas Co-generation	ID_AM016, ID_AM023, TH_AM009								2								3		5	
4. Waste Handling and Disposal	Waste-to-Energy Plant	MM_AM001						1									1			2	
	Power Generation by Methane Recovery												1							1	
5. Transportation	Digital Tachograph System	VN_AM001						1												1	
	CNG-Diesel Hybrid Bus	ID_AM026								1										1	
	Reefer Container							1												1	
Total	Number of technology : 49	No. of Methodology : 82	6	4	1	1	1	40	5	45	3	5	8	5	2	8	11	53	15	213	

Annex 3 Conditions for Adoption by Technology

1. Solar Power Plant

The conversion rate from optical to electric energy of photovoltaic modules must be 20% or higher.

*Except for particular technologies such as installation of building-material integrated photovoltaic modules.

2. Solar Power Plant with Battery

All the following conditions must be met.

➤ Photovoltaic module

The efficiency of photovoltaic modules must be 20% or higher.

*Except for particular technologies such as installation of building-material integrated photovoltaic modules.

➤ Battery

(1) A battery charges only the power generated by photovoltaic modules to be introduced, and the amount of power supplied from the battery can be measured.

(2) Regarding the installation necessity of a battery, one of the following requirements must be met.

1) Installation at off-the-grid areas

2) In case of supplying the generated power to grid, the installation of batteries is required by the laws or the regulations of the partner country, such as for the purpose of stabilizing the grid system.

3) All of the followings must be met for the self-consumption in the factory or the local power supply business.

(a) In principle, the battery should be charged and discharged every day.

(b) The battery capacity is 20% or larger than the wattage of photovoltaic modules installed and within the maximum daily chargeable amount of generated power.