JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Energy Supply Project by 0.9MW Rooftop Solar Power System to Metal Recycling and Automotive Parts Factories

A.2. General description of project and applied technologies and/or measures

The proposed project aims to reduce greenhouse gas (GHG) emissions in Thailand by introducing a total of approximately 0.9MW rooftop solar power system to 2 factories owned by (i) JIEI (Thailand) Co., Ltd. and (ii) Matsuda Sangyo (Thailand) Co., Ltd., respectively. The project is implemented by Marubeni Green Power Asset (Thailand) Co., Ltd., Marubeni Green Power Asset 2 (Thailand) Co., Ltd., and Marubeni Corporation. The electricity produced by the solar power system will replace part of the grid electricity which is generated by thermal power plants and will be utilized for self-consumption of all project locations during the project period. The proposed project is expected to reduce a total of 2,053tCO_2eq by the end of 2030. The actual emission reductions may vary depending on the actual operation of the factories and the sun radiation of the respective project locations.

A.3. Location of project, including coordinates

Country	The Kingdom of Thailand
Region/State/Province etc.:	(i) Chonburi Province (ii) Phra Nakhon Si Ayutthaya Province
City/Town/Community etc:	(i) Pinthong 4 Industrial, G18, G19 Tambon / Subdistrict Bueng, Amphur / District Sriracha (ii) 148 Moo1 Benchmark Electronics Factory, Tambol Ban Len, Amphoe Bang Pa-in
Latitude, longitude	(i) N 13° 05’ 19” and E 101° 02’ 11” (ii) N 14° 14’ 50” and E 100° 35’ 13”

A.4. Name of project participants

The Kingdom of Thailand	Marubeni Green Power Asset (Thailand) Co., Ltd. Marubeni Green Power Asset 2 (Thailand) Co., Ltd.
Japan	Marubeni Corporation

A.5. Duration

Starting date of project operation	21/03/2025
Expected operational lifetime of project	17 years
Type and duration of crediting period	Fixed crediting period (10 years)
Starting date of crediting period (input the information when requesting a renewal of crediting period)	N/A

A.6. Contribution from Japan

The proposed project was partially supported by the Ministry of the Environment, Japan (MOEJ) through the Financing Program for JCM Model Projects, which provided financial support of less than half of the initial investment for the project in order to acquire JCM credits. The technology of advanced and efficient solar power system is introduced in the proposed project by the Japanese project participant. Further, implementation of the proposed project promotes technology transfer of low carbon technologies in Thailand.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	JCM_TH_AM001
Version number	Ver. 03.0

B.2. Explanation of how the project meets eligibility criteria of the approved methodology

Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project installs solar PV system(s).	The proposed project installed new solar PV systems in the location stated in A.3.
Criterion 2	The solar PV system is connected to the internal power grid of the project site and/or to the grid for displacing grid electricity and/or captive electricity at the project site.	The solar PV systems are connected to the internal power grid of each of the project sites for displacing grid electricity at the project sites.
Criterion 3	The PV modules have obtained a certification of design qualifications (IEC 61215, IEC 61646 or IEC 62108) and safety qualification (IEC 61730-1 and IEC 61730-2).	The PV modules installed at the project sites are certified for design qualifications IEC 61215 and safety qualifications IEC 61730-1 and IEC 61730-2.
Criterion 4	The equipment to monitor output power of the solar PV system and	Power meters are installed at the project

	irradiance is installed at the project site.	sites to monitor output power of the solar PV systems. Pyranometers are installed at the project sites to monitor irradiance.

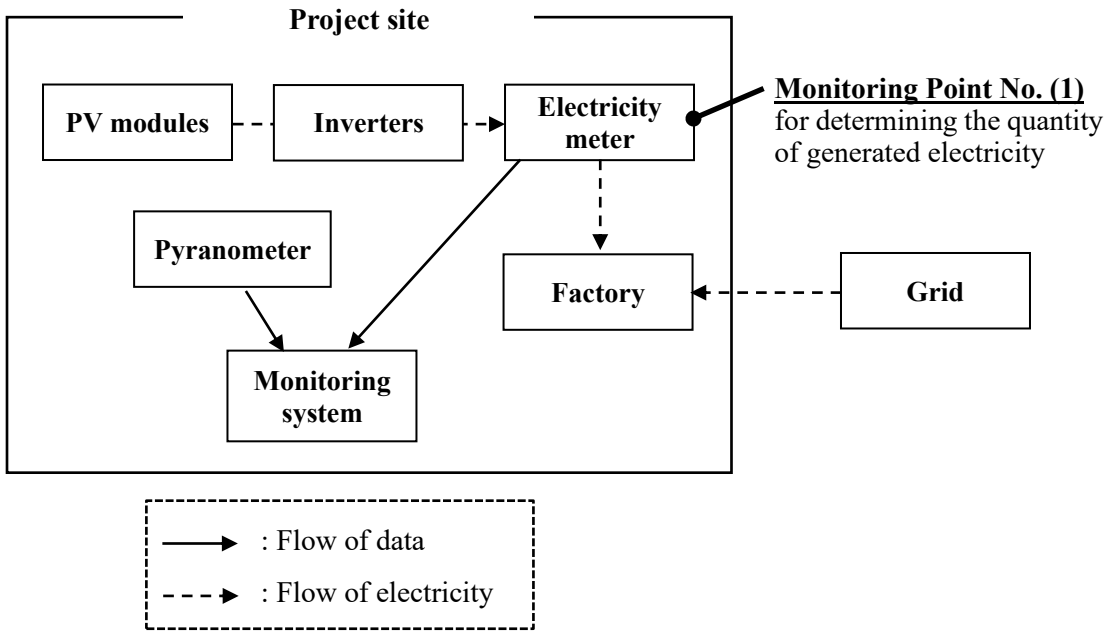
C. Calculation of emission reductions

C.1. All emission sources and their associated greenhouse gases relevant to the JCM project

Reference emissions	
Emission sources	GHG type
Consumption of grid electricity	CO_2
Project emissions	
Emission sources	GHG type
Generation of electricity from solar PV systems	N/A

C.2. Figure of all emission sources and monitoring points relevant to the JCM project

The same structure is applied to both of the project sites (i) and (ii), which is shown below.



C.3. Estimated emissions reductions in each year

Year	Estimated Reference emissions (tCO_2eq)	Estimated Project Emissions (tCO_2eq)	Estimated Emission Reductions (tCO_2eq)
2013	-	-	-
2014	-	-	-

2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-
2023	-	-	-
2024	-	-	-
2025	278.3	0.0	278
2026	355.2	0.0	355
2027	355.2	0.0	355
2028	355.2	0.0	355
2029	355.2	0.0	355
2030	355.2	0.0	355
Total (tCO_2eq)			2,053

D. Environmental impact assessment	
Legal requirement of environmental impact assessment for the proposed project	NO

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

The project participants held two local stakeholder consultation meetings in order to take due steps to engage stakeholders and solicit comments for the proposed project. Details of the meetings is summarized as follows:

[Local stakeholder consultation for Site (i)]

Date and Time: 10th February 2025, 9:00-9:30 (Thailand Time) / 11:00-11:30 (Japan Time)

Venue: Online by Zoom

Agenda:

1. Opening remarks

2. Introduction of participants
3. Overview of the project
4. Explanation of introduced technology
5. Q&A
6. Closing remarks

Invited stakeholders:

- JIEI (Thailand) Co., Ltd.
- TOKAI JIEI ASIA Co., Ltd.
- Ministry of Natural Resources and Environment, Thailand Greenhouse Gas Management Organization (TGO)

* All the invitees attended the meeting.

[Local stakeholder consultation for Site (ii)]

Date and Time: 13th February 2025, 13:00-13:30 (Thailand Time) / 15:00-15:30 (Japan Time)

Venue: Online by Zoom

Agenda:

1. Opening remarks
2. Introduction of participants
3. Overview of the project
4. Explanation of introduced technology
5. Q&A
6. Closing remarks

Invited stakeholders:

- Matsuda Sangyo (Thailand) Co., Ltd.
- Ministry of Natural Resources and Environment, Thailand Greenhouse Gas Management Organization (TGO)

* All the invitees attended the meeting.

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
JIEI (Thailand) Co., Ltd.	We suppose that maintenance of solar panels such as cleaning is the significant procedure which could affect the generation of electricity.	The maintenance criteria and other details were explained. No further action is needed.

	What kind of criteria do you have? How do you connect it with maintenance service? In addition, do you have any report for indicating maintenance effect?	
JIEI (Thailand) Co., Ltd.	Do we have to take some action for monitoring generated solar power?	It was explained that no specific action from the factory owner is required. No further action is needed.
TGO	What is the plan for the disposal of solar panels in case they are damaged or reach the end of their lifespan?	The plan for the disposal was explained. No further action is needed.
Matsuda Sangyo (Thailand) Co., Ltd.	I believe that JCM applies to equipment other than solar panels as well. What kinds of equipment are covered under JCM?	The registration rules and criteria of JCM projects were explained. No further action is needed.
Matsuda Sangyo (Thailand) Co., Ltd.	Solar power generation is no longer applicable for JCM in Thailand. Is there any possibility that it could become eligible again in the future?	The rules and criteria of the Financing Program for JCM Model Projects were explained. No further action is needed.

F. References
N/A

Reference lists to support descriptions in the PDD, if any.

Attachment
N/A

Revision history of PDD		
Version	Date	Contents revised
01.0	19/11/2025	First edition
