JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Introduction of 0.13MW Solar Power System to Auto Parts Factory

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 0.13MW rooftop solar power system to an auto parts factory owned by NICHIAS(Thailand) Co., Ltd. The project is implemented by Tokyo Century Corporation, and the project equipment is leased by TISCO Tokyo Leasing Co., Ltd. to NICHIAS(Thailand) Co., Ltd. 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 343 tCO2eq throughout the operational lifetime of the project. The actual emission reductions may vary depending on the actual operation of the factory and the sun radiation of the project location.

A.3. Location of project, including coordinates

Country	The Kingdom of Thailand
Region/State/Province etc.:	Chachoengsao
City/Town/Community etc:	85 Moo 1, Wellgrow Industrial Estate, T. Homsin, A. Bangpakong
Latitude, longitude	N13.57762, E100.92772

A.4. Name of project participants

The Kingdom of Thailand	NICHIAS(Thailand) Co.,Ltd. TISCO Tokyo Leasing Co.,Ltd.
Japan	Tokyo Century Corporation

A.5. Duration

Starting date of project operation	15/9/2022
Expected operational lifetime of project	7 years
Type and duration of crediting period	Fixed crediting period

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.	TH_AM001
Version number	Ver03.0

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 a new solar PV system 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 system is connected to the internal power grid of the project site for displacing grid electricity at the project site.
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 have obtained a certification of design qualifications (IEC 61215) and safety qualification (IEC 61730-1 and IEC 61730-2).
Criterion 4	The equipment to monitor output power of the solar PV system and irradiance is installed at the project	Power meters are installed at the project site to monitor output power of the solar PV systems. Pyranometers are installed at

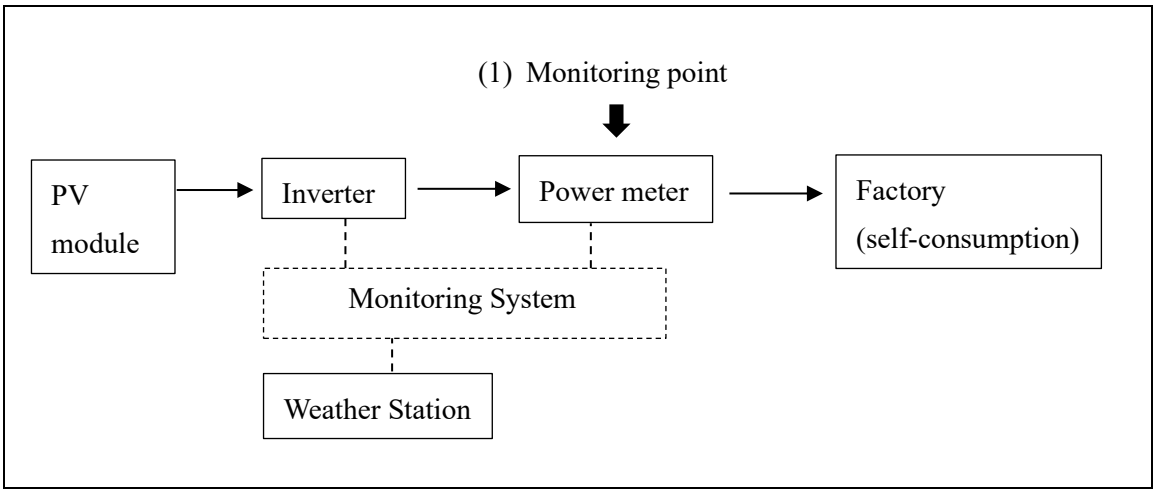
	site.	the project site to monitor irradiance.

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 and/or captive electricity	CO_2
Project emissions	
Emission sources	GHG type
Generation of electricity from solar PV system(s)	N/A

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



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	14.7	0.0	14
2023	49.8	0.0	49
2024	49.8	0.0	49
2025	49.8	0.0	49
2026	49.8	0.0	49
2027	49.8	0.0	49
2028	49.8	0.0	49
2029	35.0	0.0	35
2030	-	-	-
Total (tCO_2eq)			343

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

To solicit comments from local stakeholders, a consultation meeting was planned by the project participants, and the project participants invited various stakeholders. Details of the local stakeholder consultation meeting is summarized as follows:

Date and Time: 29th January 2025, 13:00-14:00 (Thailand time) / 15:00-16:00 (Japan time)
Venue: Online meeting

Agenda:
1. Opening remarks and introduction (by Tokyo Century Corporation)
2. Overview of the project (by Tokyo Century Corporation)
3. Explanation of technology introduced at the project site (by Tokyo Century Corporation)
4. Questions and answers
5. Closing (by Tokyo Century Corporation)

Following organizations from Thailand side were invited to the consultation meeting.

- Thailand Greenhouse Gas Management Organization (TGO)
- NICHIAS(Thailand) Co., Ltd.

There were no negative comments toward the proposed project expressed during the stakeholders meeting by the attendees. The comments received during the local stakeholders meeting are summarized in the following section.

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Thailand Greenhouse Gas Management Organization (TGO)	Does the system continue operating or stop when the factory is on break?	For Nichias, the factory operates from Monday to Friday, sometimes overtime on Saturday. On average it operates 23 days per month. Workers have 2 shifts a day, which totals up to 21 hours. The system operates on days when the factory operates. (No further action is needed)
NICHIAS(Thailand) Co., Ltd.	How are the carbon credits allocated?	30% will be allocated to the Japanese government, and the remaining credits are divided between Thailand government and NICHIAS. The allocation amount will be negotiated later. (No further action is needed)
	Is there anything that Nichias has to do currently?	For now, no. However, in future processes such as project registration, NICHIAS may be requested to provide additional information on the factory. (No further action is needed)

F. References

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

Attachment

Revision history of PDD		
Version	Date	Contents revised
01.0	17/12/2025	First edition