

## JCM Project Design Document Form

### A. Project description

#### A.1. Title of the JCM project

Introduction of 3.1MW Rooftop Solar Power System to Fast-Moving Consumer Goods and Printing Factories in Java Island

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

The proposed project aims to reduce greenhouse gas (GHG) emissions by introducing a total of approximately 3.1 MW rooftop solar power systems to a Consumer Goods factory owned by PT Kao Indonesia and a Printing factory owned by PT DNP Indonesia in Java Island.

The electricity produced by the solar power systems will replace part of the electricity consumption from the grid and will be fully utilized for the self-consumption of 2 factories during the project period.

The proposed project is expected to reduce a total of 25,436 tCO<sub>2</sub> until the end of 2034. The actual emission reductions may vary depending on the exact operation of the factories and the sun radiation of the respective project locations.

#### A.3. Location of project, including coordinates

Country	Republic of Indonesia
Region/State/Province etc.:	West Java Province
City/Town/Community etc:	Location 1: Jl. Harapan VI Lot LL 3A, Kawasan Karawang International Industrial City, Karawang  Location 2: Jalan Maligi Raya Lot F1 and F4, Kawasan Karawang International Industrial City, Karawang
Latitude, longitude	Location 1: S 6°22'38" and E 107°17'37.75"  Location 2: S 6°21'36.36" and E 107°16'25.32"

#### A.4. Name of project participants

The Republic of Indonesia	PT Alam Energy Renewables PT Kao Indonesia PT DNP Indonesia
Japan	Alamport Inc. Shizen Energy Inc.

## A.5. Duration

Starting date of project operation	01/02/2024
Expected operational lifetime of project	10 years

## A.6. Contribution from Japan

The project has been selected as one of the JCM model projects by the Ministry of the Environment, Japan (MOEJ). As a result, the initial investment cost of the proposed project has been partially financed by the Japanese government (up to 50% of the initial investment cost). Further, the implementation of the proposed project promotes the technology transfer of low carbon power generation technologies within Indonesia. Through the MOEJ program, know-hows on operation and monitoring of solar power generation are transferred to the project sites.

## B. Application of an approved methodology(ies)

## B.1. Selection of methodology(ies)

Selected approved methodology No.	ID_AM013
Version number	01.0

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

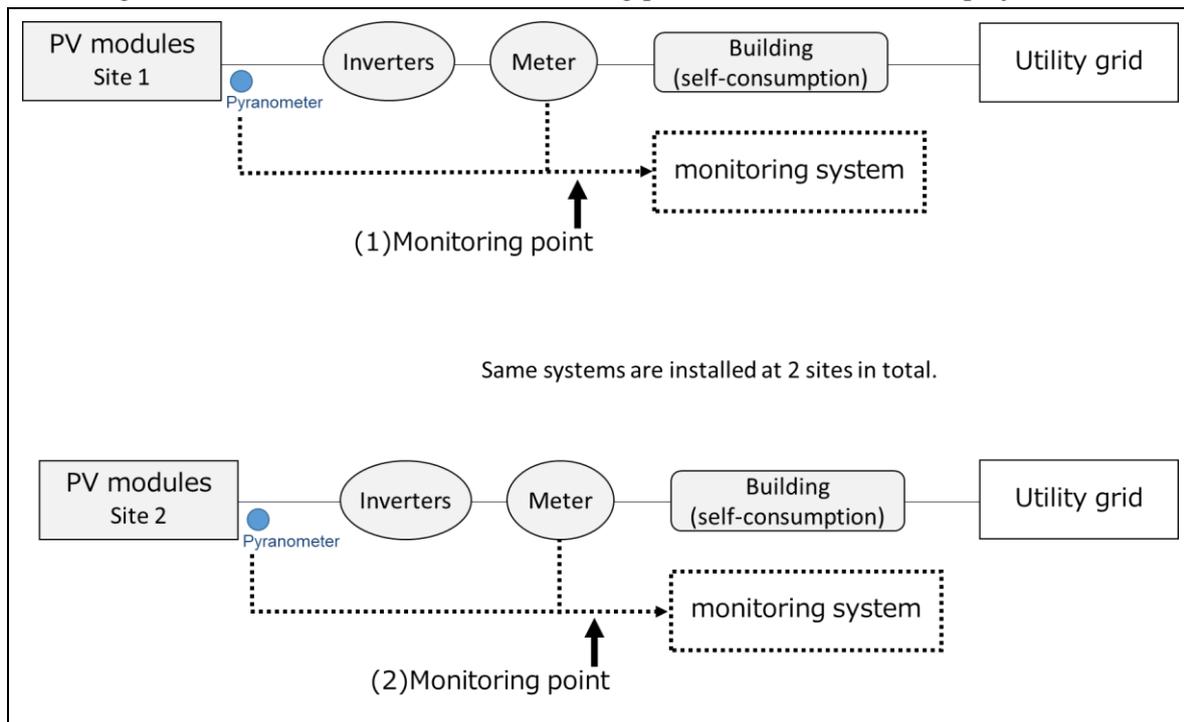
Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project newly installs solar PV system(s).	The proposed project installed new solar PV systems in each location stated in A.3.
Criterion 2	The PV modules are certified for design qualifications (IEC 61215, IEC 61646 or IEC 62108) and safety qualification (IEC 61730-1 and IEC 61730-2).	The PV modules installed in all locations are certified for design qualifications IEC 61215 and safety qualifications IEC 61730-1 and IEC 61730-2.
Criterion 3	The equipment to monitor output power of the solar PV system(s) and irradiance is installed at the project site.	Power meters are installed at the project site to monitor output power of the solar PV systems. Pyranometers are installed at 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 electricity, including national/regional and isolated grids and/or captive electricity	CO <sub>2</sub>
Project emissions	
Emission sources	GHG type
Generation of electricity from the 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 emissions (tCO <sub>2</sub> e)	Reference Emissions (tCO <sub>2</sub> e)	Estimated Project Emissions (tCO <sub>2</sub> e)	Estimated Emission Reductions (tCO <sub>2</sub> e)
2024		2132.7	0	2132
2025		2671.6	0	2671
2026		2671.6	0	2671
2027		2671.6	0	2671
2028		2671.6	0	2671
2029		2671.6	0	2671
2030		2671.6	0	2671
2031		2671.6	0	2671

2032	2671.6	0	2671
2033	1818.2	0	1818
2034	118.9		118
Total (tCO <sub>2</sub> e)			25,436

Note:

The estimated emission reductions in each year are rounded down after the decimal point.

#### D. Environmental impact assessment

Legal requirement of environmental impact assessment for the proposed project	No
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#### E. Local stakeholder consultation

##### E.1. Solicitation of comments from local stakeholders

Local stakeholder consultation has been conducted online on 9th September 2024.

The list of attendees for the meeting was determined through consultation with the Indonesia JCM secretariat.

The overview and participants of the meeting are as follows:

Date and Time: 9th September 2024 11:00-12:00 (Indonesian Western Standard Time)

Place: Web conference

Agenda:

1. Opening Remarks
2. Introduction of the project
3. Overview of the JCM
4. Question and answer session

Participants:

[Local stakeholders]

1. Indonesia JCM Secretariat / Coordinating Ministry for Economic Affairs of Indonesia
2. Karawang International Industrial City (KIIC)

[Project participants]

1. Alamport Inc.
2. Shizen Energy Inc.

3. PT Alam Energy Renewables
4. PT Kao Indonesia
5. PT DNP Indonesia
6. (Consultant) NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.

Satisfactory responses to the comments received during the consultation meeting were provided at the time of the meeting. No further action is required to consider the comment received. A summary of the comments received and consideration of those comments are listed in Section E.2. below.

#### E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Indonesia JCM Secretariat	How much is the Initial cost?	The initial cost is around 320 million JPY for two projects, 1.45 million JPY for the Kao factory, and 1.75 million JPY for the DNP factory. Please refer to the Project Idea note as well. (No further action is needed)
Indonesia JCM Secretariat	Could you inform the emission factor for the calculation?	As per the JCM Methodology, we use 0.616tCO <sub>2</sub> /MWh. (No further action is needed)
Indonesia JCM Secretariat	Are two solar projects in line with the quota regulation? Do they obtain quotas and permissions from PLN?	The new regulation became effective on 31st January 2024. Permission was previously obtained from PLN for these two projects. So, the new quotas and permissions are not applied to these projects. The capacity of two solar projects was limited to a maximum of 15% of the demand capacities defined by the contracts with PLN. (No further action is needed)
Indonesia JCM Secretariat	Could you inform the tariffs and the periods of the contracts?	We could not disclose the contracts. The contract periods are longer than

		the JCM project period, more than ten years. (No further action is needed)
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<b>F. References</b>
N/A

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

<b>Annex</b>
N/A

<b>Revision history of PDD</b>		
Version	Date	Contents revised
1.0	Dd/mm/2024	First Edition