JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Energy Saving for Industrial Park with Smart LED Street Lighting System

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

The proposed JCM project aims to improve electricity consumption by introducing an advanced and efficient Japanese intelligent street lighting system with high efficient LED lights to the KIIC (Karawang International Industrial City) Industrial Park in the Republic of Indonesia. The project contains two key technologies by following measures. ・To replace existing 1,112 street lights with high efficient LED lights to achieve energy savings ・To introduce a remote controlling and monitoring system, which monitors the failure and trouble of the lighting system and dims the light, reflecting the surrounding environment brightness

A.3. Location of project, including coordinates

Country	The Republic of Indonesia
Region/State/Province etc.:	Jawa Barat
City/Town/Community etc:	Karawang
Latitude, longitude	S 6°21'34.6" and E 107°16'27.4"

A.4. Name of project participants

The Republic of Indonesia	PT. MALIGI PERMATA INDUSTRIAL ESTATE PT. HARAPAN ANANG BAKRI & SONS PT. KARAWANG TATABINA INDUSTRIAL ESTATE
Japan	NTT FACILITIES, INC.

A.5. Duration

Starting date of project operation	30/9/2016
Expected operational lifetime of project	10 years

A.6. Contribution from Japan

The proposed JCM Project was partially supported by the Ministry of Environment, Japan through the financing programme for JCM model projects, which provided financial support up to 50% of initial investment for the projects in order to acquire JCM credits.

The technology of intelligent street lighting energy management system which has been developed by the Japanese project participant is introduced in the proposed project. The Japanese project participant trains the operation method of the system to the management team of KIIC.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	ID_AM018
Version number	ver01.0

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

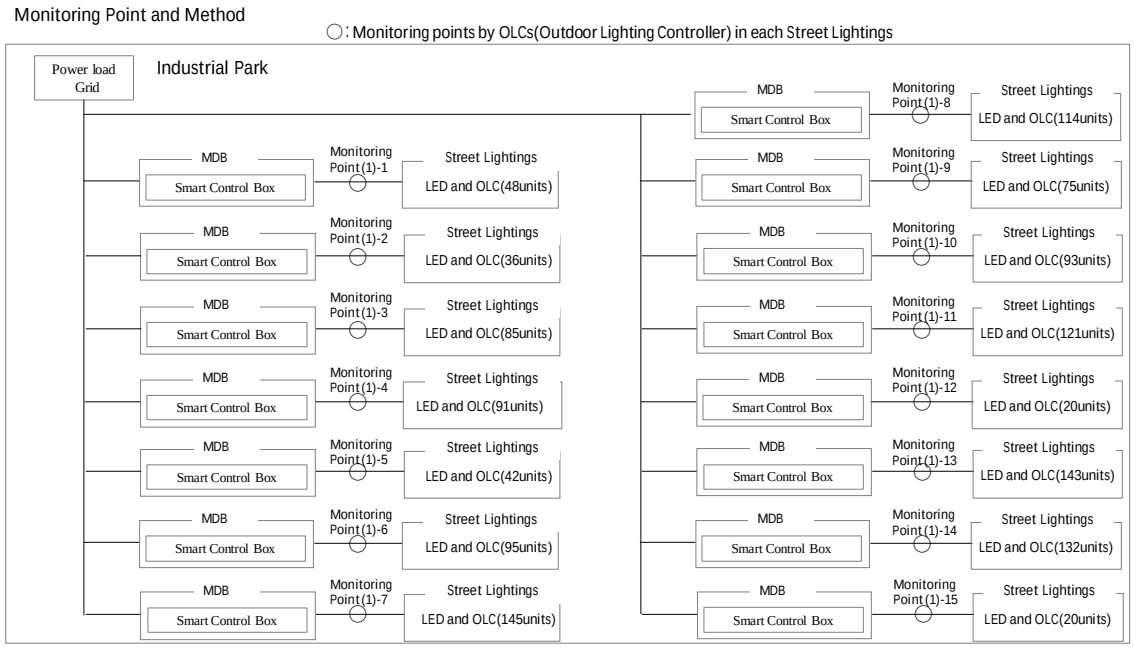
Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	LED street lighting accompanied by lighting control system are newly installed or installed to replace existing street lighting.	High efficient LED lamps are installed to replace existing 1,112 street lights (HPS) in the KIIC Industrial Park. The installed street lighting is accompanied by the remote controlling and monitoring system to monitor the failure and trouble of the lighting system and to control the light intensity of the light output.

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
Electricity consumption by reference street lighting(s)	CO_2
Project emissions	
Emission sources	GHG type
Electricity consumption by project street lighting(s)	CO_2

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_2e)	Estimated Project Emissions (tCO_2e)	Estimated Emission Reductions (tCO_2e)
2013			
2014			
2015			
2016	86.14	78.58	7
2017	344.10	314.34	29
2018	344.10	314.34	29
2019	344.10	314.34	29
2020	345.04	315.20	29
2021			
2022			
2023			
2024			
2025			
2026			
2027			

2028			
2029			
2030			
Total (tCO_2e)			123

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

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

The project participant identified the following stakeholders, accommodating the suggestions from Indonesian JCM Secretariat.
[Direct stakeholders] Staff member of Karawang International Industrial City (KIIC)
[Indirect stakeholders] Officer of Autonomy and Cooperation Bureau
The project participant conducted a face-to-face interview with Indonesia JCM Secretariat and local stakeholder consultation with identified stakeholders (see table below). Comments received from the participants of the local stakeholder consultation are summarized in the following section E.2. below. The project received no negative comments from the participants of the local stakeholder consultation, and, also, it was confirmed that none of the received comments requires further mitigation action from the project side.

#	date	Venue	Method	Attendance
1	October 31, 2016 10:25~10:45	Meeting Room of Indonesia JCM Secretariat (GKKBP 4th Floor)	Face-to-face interview	Indonesia JCM Secretariat
2	November 7, 2016 14:00 ~ 16:00	Operation office in KIIC	Local stakeholder consultation	Plant manager, Autonomy and Local government (West Java province), and Indonesia JCM Secretariat

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
KIIC project participant	The proposed project satisfies KIIC's staff members and generates interests in implementing PV power generation in KIIC under the JCM program.	The emission reductions are calculated as difference between reference emission and project emissions.

	What is the calculation method for the amount of CO_2 emissions reduction? What happens to allocation of JCM credits, except for a half of issued credits to the Japanese side?	The rest of credits will be discussed internally within the international consortium. No action is necessary.
Autonomy and Cooperation Bureau	The proposed project satisfies and generates interest in applying JCM project by themselves.	No action is necessary.
Indonesia JCM Secretariat	What is lamp replacement requirement? Were operations and maintenance training conducted at the time of the introduction of smart system to KIIC? How is the maintenance activity?	They were informed that: 1) a total of 1,260 LED lights have been installed by the project; *As of 12 Feb 2020, KIIC project participant confirmed 1,112 street lights with high efficient LED lights are active. 2) operations and maintenance training to KIIC team was conducted on 19 October, 2016 as part of the capacity building process. The photographs of the KIIC team attending at the training will be delivered to JCM Secretariat; and 3) the maintenance activity comes with a one-year warranty, and consultation is required after the warranty period is over. No action is necessary.

F. References

N/A

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

Annex

Revision history of PDD		
Version	Date	Contents revised
01.0	12/02/2020	First Edition