JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Introduction of 14MW floating solar power system in Vientiane

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

The project involves installation of 14MW Floating solar farm equipment utilizing un-used three water ponds in Vientiane. The project is implemented by TPG Lao Co., Ltd., a company utilizing the crystalline silicon photovoltaic (PV) modules of Econess Energy. The electricity produced by the Project is supplied to the national grid of Lao PDR which is managed by EDL (Electricité Du Laos) and displacing the grid electricity, contributing to greenhouse gas emissions reduction in Lao PDR.

A.3. Location of project, including coordinates

Country	Lao People's Democratic Republic
Region/State/Province etc.:	Vientiane Capital District
City/Town/Community etc:	Hatxaifong Village Nahai/Nongheo
Latitude, longitude	Pond A: N17.884608, E102.679806 Pond B: N17.884843, E102.682445 Pond C: N17.887293, E102.684569

A.4. Name of project participants

The Lao People's Democratic Republic	TPG Lao Co., Ltd.
Japan	TSB Co., Ltd.

A.5. Duration

Starting date of project operation	01/01/2020
Expected operational lifetime of project	17 years

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 projects 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 Lao PDR.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	LA_AM002
Version number	ver01.0

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

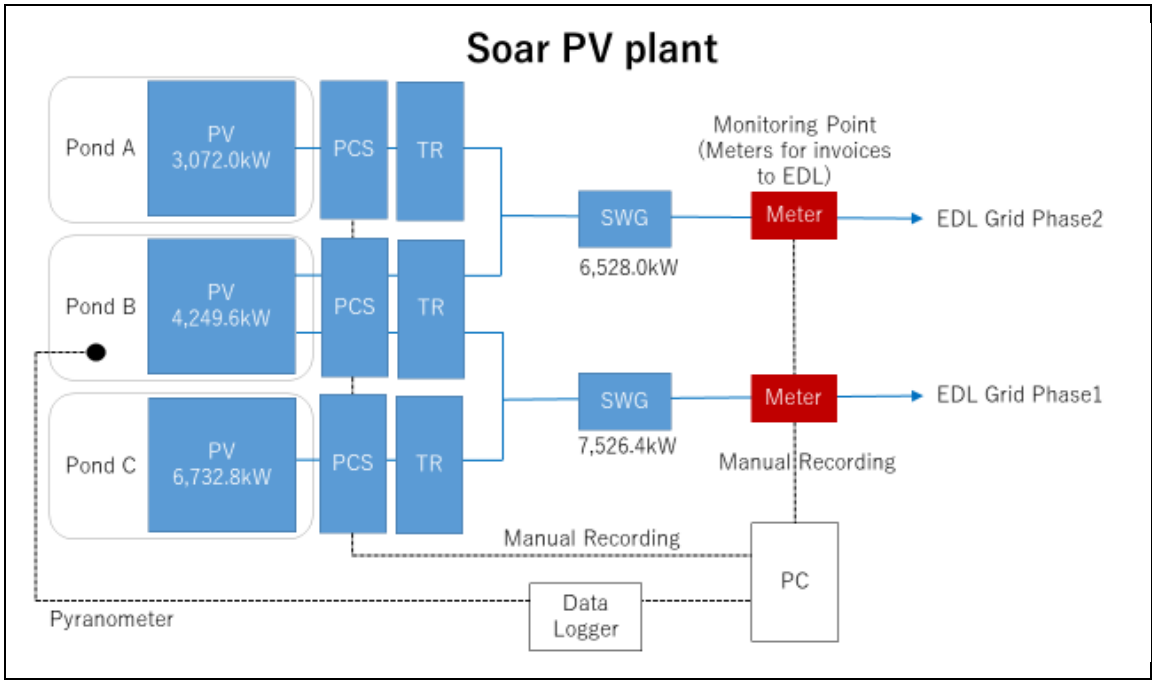
Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project installs solar PV system(s).	The solar PV system is installed at three unused ponds in Vientiane.
Criterion 2	The PV modules are certified for design qualifications (IEC 61215, IEC 61646 or IEC 62108) and safety qualification (IEC 61730-1 and IEC 61730-2).	The PV module installed in the project have been certified for IEC 61215, IEC 61730-1, IEC 61730-2.
Criterion 3	The equipment used for monitoring output power of the solar PV system(s) and irradiance is installed at the project site.	Electricity meter and pyranometer have been installed at the project site to monitor output power and irradiance respectively

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 national grid electricity	CO_2
Project emissions	
Emission sources	GHG type
Generation of electricity from the Solar PV system	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_2e)	Estimated Project Emissions (tCO_2e)	Estimated Emission Reductions (tCO_2e)
2020	6,838.0	0	6,838
2021	6,838.0	0	6,838
2022	6,838.0	0	6,838
2023	6,838.0	0	6,838
2024	6,838.0	0	6,838
2025	6,838.0	0	6,838
2026	6,838.0	0	6,838
2027	6,838.0	0	6,838
2028	6,838.0	0	6,838
2029	6,838.0	0	6,838
2030	6,838.0	0	6,838
Total (tCO_2e)			75,218

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. Due to the travel restriction caused by COVID-19, the local stakeholder consultation was conducted by teleconference. Details of the local stakeholder consultation meeting is summarized as follows:

Date and Time: 20th November 2020, Laos：14:00-15:30, Japan:16:00-1730
Venue: Teleconference by ZOOM

Following organizations were invited to the consultation meeting:
- Ministry of Natural Resources and Environment Department of Climate Change (MONRE)
- Electricité Du Laos (EDL)
- Owner of NongHeo Water pond
- TPG Lao Co., Ltd.
- TSB Co., Ltd.

At the meeting, the details of the proposed JCM project and the technology to be introduced were explained by the representative of TSB 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
MONRE	How is the process of PDD after this LSC?	After summarizing LSC today, TSB will finalize drafting PDD. TSB will ask JC secretariat to publicize the PDD and other documents to collect public inputs. Besides the publication, a TPE will conduct “validation”. After the validation and accepting public comments, TSB will revise and finalize the PDD.

		Finally, TSB will submit the PDD with a validation report from TPE to JC secretariat to register this project under JCM scheme. (No further action is needed)
Owner of NongHeo Water pond	I hope this project will be disseminated.	In Laos and the world, the current global trend is factories which generate less or no GHG. And utilizing JCM scheme, TSB would like to develop more projects in Laos. TSB and TPG Lao would like to introduce “Solar PV + batteries” as a new technology toward low carbon/decarbonized society. (No further action is needed)

F. References
N/A

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

Annex
N/A

Revision history of PDD		
Version	Date	Contents revised
01.0	01/03/2022 05/08/2022	First edition Initial registration by the Joint Committee through electronic decision