JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

5MW Solar Power Project in Belen

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

The project involves installation of a large-scale solar power plant with the generating capacity of 5MW in municipality Belen, Costa Rica. The project is implemented by CoopeGuanacaste, R.L., a CostaRican company utilizing the crystalline silicon photovoltaic (PV) modules of Panasonic Corporation of Japan. Panasonic's PV modules are well known for high durability, adhering to the company standard which is more stringent than Japan Industrial Standard or International Electrotechnical Commission standards. The electricity produced by the project is supplied to the Central Energy System of Costa Rica displacing electricity generation by fossil-fuel based power plants, contributing to greenhouse gas emissions reduction in Costa Rica.

A.3. Location of project, including coordinates

Country	Costa Rica
Region/State/Province etc.:	Guanacasta Region
City/Town/Community etc:	Municipality Belen
Latitude, longitude	10°23'36.1"N 85°35'14.3"W

A.4. Name of project participants

The Republic of Costa Rica	Generacion Solar Fotovoltaica Belen Sociedad Anonima Coope guanacaste
Japan	NTT Data Institute of Management Consulting Inc.,

A.5. Duration

Starting date of project operation	01/11/2017
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 Programme 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 Costa Rica.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	CR_AM001
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 in municipality Belen.
Criterion 2	The PV modules 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 module installed in the project have been certified for IEC61215, IEC61730-1,IEC61730-2
Criterion 3	The equipment used to monitor 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.

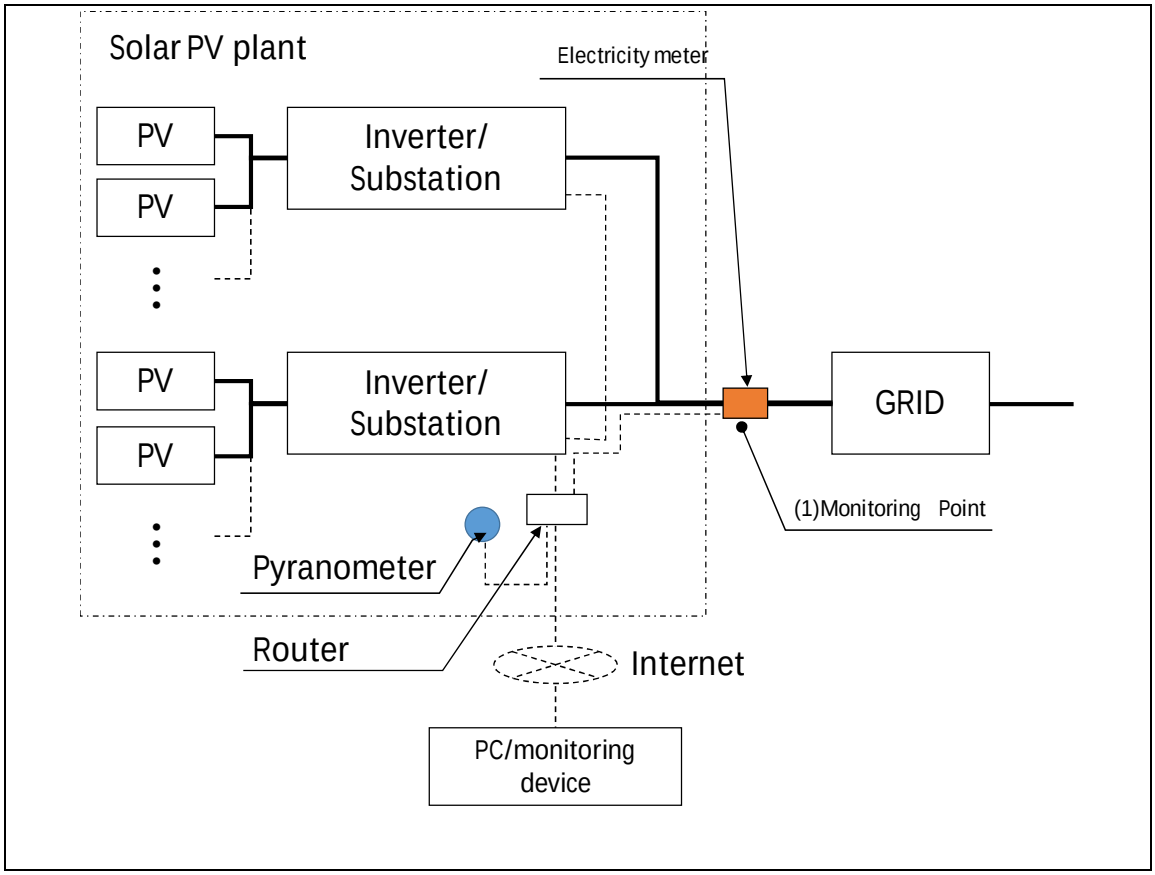
C. Calculation of emission reductions

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	CO2
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)
2017	374.9	0.0	374
2018	2,245.0	0.0	2,245
2019	2,245.0	0.0	2,245
2020	2,245.0	0.0	2,245
2021	2,245.0	0.0	2,245
2022	2,245.0	0.0	2,245
2023	2,245.0	0.0	2,245
2024	2,245.0	0.0	2,245
2025	2,245.0	0.0	2,245
2026	2,245.0	0.0	2,245

2027	2,245.0	0.0	2,245
2028	2,245.0	0.0	2,245
2029	2,245.0	0.0	2,245
2030	2,245.0	0.0	2,245
Total (tCO_2e)			29,559

D. Environmental impact assessment	
Legal requirement of environmental impact assessment for the proposed project	Yes, under the Law on Environmental Impact Assessment of Costa Rica, the Project is required to undergo environmental impact assessment, which was carried out in May 2013, and was approved in November 2015.

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

The project participant identified the following stakeholders.

The project participant conducted a face-to-face interview with local stakeholder consultation with identified stakeholders (see 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.

- Venue: Meeting Room, Seis Playa Hotel, Tamarindo, Costa Rica
- Date/Time: October 5, 2017, 16:00 - 17:30
- Stakeholders:
  - Solar Power Plant Operator - Generacion Solar Fotovoltaica Belen Sociedad Anonima
  - Local Power Supply Company - Coope guanacaste

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Solar Power Plant Operator	This project is a great example of what can be done to fight climate	No action is needed.

	change by deploying and transferring cutting edge technology.	
Local Power Supply Company	What kind of organizations are TPEs?	TPEs will be Quality Assurance Organization.
Local Power Supply Company	JCM is a very important program which provides financial support that allows us to utilize high technologies. We hope it will continue contributing to the environment.	No action is needed.

F. References
Resolution No.2558-2015-SETAENA :PROJECT GENERATION SOLAR JUANILAMA ADMINISTRATIVE FILE NO.D1-13115-2014-SETENA

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

Annex
None

Revision history of PDD		
Version	Date	Contents revised
Ver1.0	27/08/2018	First edition
Ver2.0	13/02/2019 23/02/2020	Second Edition PDD Format changed, changed monitoring chart. Initial registration by the Joint Committee through electronic decision