JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

3MW Solar Power Project in Chillan, Nuble Region

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

The proposed project in Chillan, Nuble Region is a 3MW solar power plant. The project site is located in the suburbs of Chillan, approximately 400 km south of Santiago, the capital city of Chile. The purpose of this project is to reduce greenhouse gas (GHG) emissions and contribute to the promotion of renewable energy in Chile. The installation of the photovoltaic (PV) system, connected to the national grid, can replace a portion of the power generated from thermal power plants and contribute to a sustainable power supply.

A.3. Location of project, including coordinates

Country	The Republic of Chile
Region/State/Province etc.:	Nuble Region
City/Town/Community etc:	Chillan
Latitude, longitude	36°36'16.84"S, 72°15'05.03"W

A.4. Name of project participants

The Republic of Chile	Land and Sea SpA Farmdo Energy Chile SpA
Japan	FARMLAND Co., Ltd.

A.5. Duration

Starting date of project operation	04/06/2021
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 project in order to acquire JCM credits. Implementation of the proposed project also contributes to the promotion of renewable energy in Chile.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	JCM_CL_AM001
Version number	Ver2.0

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

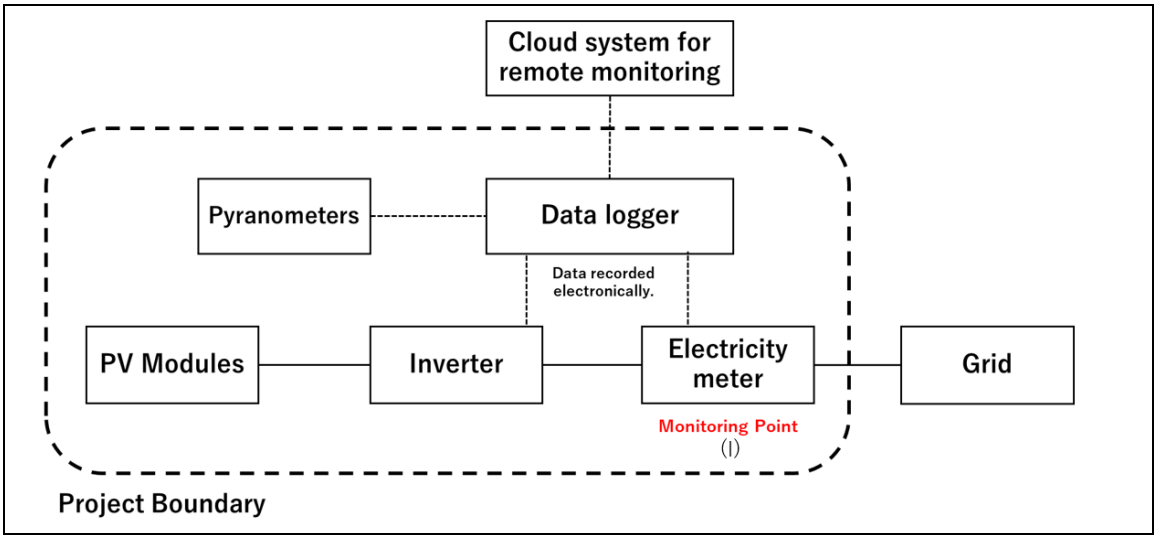
Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project newly installs solar PV system(s).	3MW solar PV system is newly installed.
Criterion 2	The PV modules are certified for design qualifications (IEC 61215, IEC 61646 or IEC 62108) and safety qualification (IEC 61730-1 and IEC 61730-2).	Introduced PV modules comply with design qualifications (IEC 61215) and safety qualification (IEC 61730-1 and 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.	The monitoring equipment for output power and irradiance of the solar PV system(s) have been installed at the project site.

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	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_2e)	Estimated Project Emissions (tCO_2e)	Estimated Emission Reductions (tCO_2e)
2021	1,291.6	0.0	1,291
2022	2,433.5	0.0	2,433
2023	2,433.5	0.0	2,433
2024	2,433.5	0.0	2,433
2025	2,433.5	0.0	2,433
2026	2,433.5	0.0	2,433
2027	2,433.5	0.0	2,433
2028	2,433.5	0.0	2,433
2029	2,433.5	0.0	2,433
2030	2,433.5	0.0	2,433
Total (tCO_2e)			23,188

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
Date and Time: 7th September 2021, 9:00-10:15 (CLT)

Venue: Online meeting (Zoom)
Language: Spanish/English
Participants: 25 people (Ministry of Energy, Regional Ministerial Secretariat, Cooperativa de consumo de energía de Chillán LTDA (Cooperative of energy consumption of Chillan LTDA), Gestión de la Información en la Industria Eléctrica (Information Management in the Electrical Industry), Sherpas Consulting, Ingeniería y Construcción Penablanca S.P.A (Engineering and Construction Peñablanca S.P.A), Consultoría y Asesoría Micor Limitada (Consultancy and Advice Micor Limited), Ovalle Consejeros Legales (Ovalle Legal Advisors), Nexxo Consultores (Nexxo Consultants), etc.)
Agenda:
1) Opening remarks and introduction
2) Opening remarks by the Chilean side
3) Introduction of JCM procedure
4) Overview of the project
5) Comments and Questions
6) Closing remarks

Farmland Co., Ltd. sent an invitation letter of the local stakeholder consultation and many stakeholders from Chilean side joined the meeting. The main comments received were about credit allocation, as shown in the E.2. section below.

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Farmdo Energy Chile	Is there any way to make more companies join in the JCM project and help Chile achieve a carbon-neutral society?	Since many Japanese companies are unfamiliar with Chile, we think it's important to take more companies to Chile. No further action is needed.
Sherpas Consulting	Will the Chilean project owners be able to receive some part of the carbon credits?	The allocation of the JCM credits for Chilean participants is under the discussion by the Chilean government. No further action is needed.
Sherpas Consulting	Can the carbon credits be used in Chilean emission trading system that will be established in 2023?	The rules will be set in line with the Article 6 of the Paris Agreement after this article is finalized.

		No further action is needed.

F. References

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

Annex

Revision history of PDD		
Version	Date	Contents revised
01.0	24/09/2021	First edition
02.0	22/02/2022 08/08/2022	Revised edition Initial registration by the Joint Committee through electronic decision