JCM Validation Report Form

A. Summary of validation

A.1. General Information

Title of the project	5MW Solar Power Project in Belen
Reference number	CR001
Third-party entity (TPE)	TPE-CR-003 Japan Quality Assurance Organization
Project participant contracting the TPE	NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc
Date of completion of this report	28/05/2019

A.2 Conclusion of validation

Overall validation opinion	☒ Positive ☐ Negative

A.3. Overview of final validation conclusion

Only when all of the checkboxes are checked, overall validation opinion is positive.

Item	Validation requirements	No CAR or CL remaining
Project design document form	The TPE determines whether the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan and Monitoring Report.	☒
Project description	The description of the proposed JCM project in the PDD is accurate, complete, and provides comprehension of the proposed JCM project.	☒
Application of approved JCM methodology (ies)	The project is eligible for applying applied methodology and that the applied version is valid at the time of submission of the proposed JCM project for validation.	☒
Emission sources and calculation of emission reductions	All relevant GHG emission sources covered in the methodology are addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project.	☒
	The values for project specific parameters to be fixed *ex ante* listed in the Monitoring Plan Sheet are appropriate, if applicable.	☒
Environmental impact assessment	The project participants conducted an environmental impact assessment, if required by the Republic of Costa Rica, in line with Costa Rican procedures.	☒
Local stakeholder	The project participants have completed a local stakeholder consultation process and that due steps were taken to engage	☒

Item	Validation requirements	No CAR or CL remaining
consultation	stakeholders and solicit comments for the proposed project.	
Monitoring	The description of the Monitoring Plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology and/or Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan, and Monitoring Report. The monitoring points for measurement are appropriate, as well as whether the types of equipment to be installed are appropriate if necessary.	☒
Public inputs	All inputs on the PDD of the proposed JCM project submitted in line with the Project Cycle Procedure are taken into due account by the project participants.	☒
Modalities of communications	The corporate identity of all project participants and a focal point, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories are included in the MoC.	☒
	The MoC has been correctly completed and duly authorized.	☒
Avoidance of double registration	The proposed JCM project is not registered under other international climate mitigation mechanisms.	☒
Start of operation	The start of the operating date of the proposed JCM project does not predate January 1, 2013.	☒

Authorised signatory:	Mr. ☒ Ms. ☐
Last name: Asada	First name: Sumio
Title: Senior Executive	
Specimen signature:	Date: 28/05/2019

[redacted]

B. Validation team and other experts

	Name	Company	Function*	Scheme competence*	Technical competence*	On-site visit
Mr. ☐ Ms. ☒	Sachiko Hashizume	JQA	Team Leader	☒	Authorized	☒
Mr. ☐ Ms. ☒	Tamami Nagayama	JQA	Team Member	☐		☐
Mr. ☒ Ms. ☐	Hiroshi Motokawa	JQA	Internal Reviewer	☒	Authorized	☐
Mr. ☐ Ms. ☐				☐		☐

Please specify the following for each item.

* *Function: Indicate the role of the personnel in the validation activity such as team leader, team member, technical expert, or internal reviewer.*

* *Scheme competence: Check the boxes if the personnel have sufficient knowledge on the JCM.*

* *Technical competence: Indicate if the personnel have sufficient technical competence related to the project under validation.*

C. Means of validation, findings, and conclusion based on reporting requirements

C.1. Project design document form

<Means of validation>

By reviewing the PDD for publication, the validation team (hereinafter "Team") assessed whether it was completed using the latest version of the PDD form (JCM_CR_F_PDD_ver03.0) and drafted in line with JCM Guidelines for Developing PDD and MR (JCM_CR_GL_PDD_MR_ver03.0). An issue was raised and closed as mentioned in the findings section below.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CAR01)

The PDD for publication was prepared using the previous version of the PDD form (JCM_CR_F_PDD_ver01.0). It was requested to use the latest PDD form and draft in line with the latest JCM Guidelines.

(Summary of the response)

The Project Participant (hereinafter "PP") of Japan has prepared the final PDD using the latest version of the PDD form (JCM_CR_F_PDD_ver03.0).

(Assessment result of the response)

It was confirmed that the final PDD was appropriately prepared using the latest PDD form (JCM_CR_F_PDD_ver03.0) in line with the latest JCM Guidelines. Therefore this issue was closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

The Team concludes that the final PDD for registration is completed using the valid form in line with the JCM Guidelines for Developing PDD and MR (JCM_CR_GL_PDD_MR_ver03.0).

C.2. Project description

<Means of validation>

The title of the proposed JCM project (hereinafter “the project”) is “5MW Solar Power Project in Belen”.

The PP of the host country is Generacion Solar Fotovoltaica Belen Sociedad Anonima Coope guanacaste (hereinafter “Coope Guanacaste”) and the PP of Japan is NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.

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 Coope Guanacaste, a Costa Rican 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.

The project is expected to achieve the emission reductions of 2,245 tCO_2e per annum. The estimated emission reductions of the period from 2018 to 2030 are calculated in the PDD.

The starting date of project operation is defined as 01/11/2017 and the expected operational lifetime of the project is defined as 17 years according to the statutory lifetime by National Tax Agency Japan.

With respect to the starting date of project operation, an issue was raised and resolved as mentioned in Section C.10 of this validation report. As for the expected

operational lifetime, an issue was raised and closed as mentioned below in the findings section.

The project is partially supported by the Ministry of the Environment, Japan (MOEJ) through the Financing Programme for JCM Model projects, which provides 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 by the project. Further, implementation of the project promotes low carbon technology transfers to Costa Rica.

The Team conducted document reviews, interviews and an on-site visit to confirm the accuracy and completeness of the project descriptions in the PDD. The interviewees during the validation are listed in Section E.1 of this report. The documents reviewed during the validation are listed in Section E.2 of this report. The on-site visit was undertaken on 19/11/2018.

The location of the project site was confirmed, and an issue was raised and closed as mentioned below in the findings section.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL01)

The PPs were requested to describe the latitude and longitude of the project site for searching by Google Map.

(Summary of the response)

The PPs have revised the latitude and longitude of the location in Section A.3 of the final PDD.

(Assessment result of the response)

It was confirmed that the latitude and longitude has been appropriately revised in the final PDD. Therefore this issue was closed.

(Issue raised as CL02)

The PPs were requested to provide the evidence of the Japanese legal documents stating the expected operational lifetime of solar power plant as 17 years.

(Summary of the response)

The PPs provided the statutory lifetime indicated by the website of National Tax

Agency Japan as the evidence of the expected operational lifetime of 17 years.

(Assessment result of the response)

It was confirmed that the expected operational lifetime of 17 years was in accordance with the Japanese regulation. Therefore this issue was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The Team concludes that the project description in the final PDD is accurate and complete, and provides comprehension of the proposed JCM project.

C.3. Application of approved methodology(ies)

<**Means of validation**>

The project applies the approved methodology, CR_AM001 "Installation of Solar PV System, Ver. 01.0". This methodology was approved by the JC on 08 September 2017. It is confirmed that this methodology is applicable to the project, that the applied version of 01.0 is valid at the time of the validation and that the Monitoring Plan Sheet (hereinafter "MPS") attached to the PDD is completed using the latest version of the monitoring spreadsheet form (JCM_CR_AM001_ver01.0).

The fulfilment of each eligibility criterion defined in the methodology is confirmed by document reviews and the on-site visit. The assessments of the eligibility criteria provided by the approved methodology are summarized as below:

Criterion 1: The project installs solar PV system(s);

By reviewing the brochure and specification of the project solar PV systems and inspecting the site, it is confirmed that the solar PV system is installed in the project site.

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).

By reviewing the certificate issued by Japan Electrical Safety & Environment Technology Laboratories and interviewing with the PPs, it is confirmed that the PV modules installed by the project have been certified for IEC61215, IEC61730-1 and 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.

By reviewing the documents and interviewing with the PPs, it is confirmed that one main electricity meter (and one electricity meter for a back-up) and one pyranometer (SR20-TR) are installed at the project site to monitor output power and irradiance respectively. The name and type of electricity meters and pyranometer were checked with the specifications received.

An issue was raised and resolved as described below in the findings section.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CAR02)

The figure in Section C.2 of the PDD indicated two electricity meters installed at two Inverter/Substations respectively, i.e. each meter installed at each Inverter/Substation. However, by the interviews with the PPs and the on-site visit, the Team found that the electricity meter installed right before the connection to the power grid is being used for measuring the electricity generation by the project solar PV system. The PPs were requested to revise the figure in Section C.2.

(Summary of the response)

The PPs have correctly revised the figure in Section C.2.

(Assessment result of the response)

The Team confirmed that the figure in Section C.2 in the final PDD was in correspondence with the actual installation at the project site. Therefore this issue was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The Team concludes that the project is eligible for applying selected methodology and that the applied version is valid at the time of submission of the proposed JCM project for validation.

C.4. Emission sources and calculation of emission reductions

<**Means of validation**>

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. The proposed JCM project applies the proposed methodology CR_AM001 "Installation of

Solar PV System version01.0".

The source of reference emission is electricity consumption of national grid and the source of project emissions is the electricity generation from the project Solar PV system.

By the document reviews and on-site visit, it is confirmed that all relevant GHG emission sources covered in the applied methodology are included.

The MPS is prepared by using JCM_CR_AM001_ver01.0.xlsx. The Team confirms that it is not altered, and its required fields are appropriately filled in.

As for project specific parameters to be fixed ex ante, the Team assessed the estimated value by reviewing documents including the specifications of the project equipment.

- $EF_{RE,i}$: Reference emission factor for the project solar PV system *i* [tCO_2/MWh]

  The source of this parameter is defined in the applied methodology. In accordance with the applied methodology, the value for $EF_{RE,i}$ is derived from the emission factor of the national grid ($EF_{RE,grid}$) or the emission factor of captive diesel power generator ($EF_{RE,cap}$). By the document reviews and on-site visit, the Team confirms that the PV system of the project is directly connected to the national grid and not to the internal grid and that the reference emission factor was fixed at 0.255 tCO_2/MWh. This value is lower than the latest emission factor officially published for a CDM project in Costa Rica, which is 0.273 tCO_2/MWh (combined margin, 2010-2012).

The Team determines that data sources and assumptions are appropriate for this parameter, which the value is in line with the applied methodology.

By the document reviews and on-site visit, the Team reviewed the annual electricity generation by the project, which is estimated by the PPs based on the average radiance of the solar PV system. An issue was raised and resolved as described below in the findings section.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL03)

By reviewing the documents and interviewing with the PPs, it was not clearly explained as to how the PPs calculated the average PV array/day for the electricity generation of the solar PV system. The PPs were requested to provide additional

evidence.

(Summary of the response)

The PPs provided the documents showing estimated electricity generation and its relevant parameters. The estimated electricity generation was calculated using GlobEff (Effective Global, corr, For IAM and shadings) data.

(Assessment result of the response)

The Team confirmed that the PPs calculated the average PV array/day for the electricity generation using GlobEff (Effective Global, corr, For IAM and shadings) and that the input value for the calculation was derived from the data by the simulation of PV system. Therefore this issue was closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

The Team concludes that the selected emission sources and GHG types are in line with the applied methodologies and that the values for the project specific parameters to be fixed ex-ante are considered reasonable in the context of the project.

C.5. Environmental impact assessment

<Means of validation>

The PDD states that environmental impact assessment (hereinafter "EIA") is required under the EIA Law of Costa Rica. The EIA report, "Environment Effect Investigation" was prepared by CDG Environmental Advisors Consultant (registered to SETENA) was submitted to the Ministry of Environment and Energy and Environmental National Technical Secretariat (hereinafter referred to as "SETENA") in line with the law. It was confirmed that the EIA was approved on November 27, 2015 by SETENA with the approval letter, "Resolution No.2558-2015-SETENA" as stated below;

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

Regarding the approval date of the EIA report, an issue was raised and resolved as described below in the findings section.

Regarding the reference documents of environment impact assessment, another issue was raised and resolved as described below in the findings section.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL04)

It was mentioned in Section D. of the PDD that EIA was carried out in November, 2015, however, Environment Effect Investigation prepared by CDG Environmental Advisors Consultant was dated May, 2013 and the approval date was November, 2015. The PPs were requested to clarify the inconsistency between the PDD and the EIA report.

(Summary of the response)

The PPs revised the dates of the PDD according to the date of EIA report.

(Assessment result of the response)

The Team confirmed that the inconsistency of the dates were resolved. Therefore this issue was closed.

(Issue raised as CL05)

Under the Section F. of the PDD, the title of the document was written in Spanish "PROYECTO GENERACION SOLAR FOTOVOLTAICO JUANILAMA EXPEDIENTE ADMINISTRATIVO No D1-13115-2014-SETENA". The PPs were requested to revise the EIA report name.

(Summary of the response)

The PPs revised the name of the reference document in English; No.2558-2015-SETAENA: PROJECT GENERATION SOLAR JUANILAMA ADMINISTRATIVE FILE NO.D1-13115-2014-SETENA.

(Assessment result of the response)

The Team confirmed that the title of the document listed under Section F. of the final PDD is in English and is also consistent with the document provided by the PPs. Therefore this issue was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The Team concludes that the project implementation for EIA is in line with the procedures as required by the local regulations of Costa Rica.

C.6. Local stakeholder consultation

<**Means of validation**>

The PPs conducted a local stakeholder consultation (hereinafter "LSC") with identified stakeholders:

- 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

By the document reviews and interviews with the PPs, the Team confirmed the following;

- The project received no negative comments from the participants of the LSC,
- None of the received comments required further mitigation action from the project side,
- The above-mentioned process and due steps taken for the LSC were appropriate.

Regarding the names of the stakeholders, an issue was raised and resolved as described in the findings section below.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL06)

As for the stakeholders, it was only mentioned in the PDD as "Solar Power Plant Operator" and "Local Power Supply Company". The PPs were requested to clarify the specific company names of stakeholders.

(Summary of the response)

The PPs added the specific company names of the stakeholders accordingly.

(Assessment result of the response)

The Team confirmed the addition of the specific names of the stakeholders to the final PDD. Therefore this issue is closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The Team concludes that the local stakeholder consultation of the project is adequate.

C.7. Monitoring

<**Means of validation**>

The Team reviewed the monitoring plan in the MPS to confirm whether the description of the monitoring plan is based on the applied methodologies and/or PDD and Monitoring Guidelines.

By the interviews with the PPs, the Team confirmed that the role and responsibility of the monitoring were assigned according to the Monitoring Structure Sheet of MPS.

Regarding the monitoring points, an issue was raised and resolved as CAR02 mentioned above in this report.

Regarding the measurement methods and procedures, the electricity generation by the solar PV system is measured by two electricity meters, Schneider Electric model ION8650, one is main and another is back up.

By reviewing relevant documents and interviewing with the PPs, the Team confirms that the electricity meters are calibrated in accordance with the regulations of Costa Rica. Regarding the calibration, an issue was raised and resolved as described below in the findings section.

The reading is undertaken electronically using the remote monitoring system, Sunny Portal, and when it is not available, manually recorded.

With respect to the monitoring structure, the following roles are confirmed based on MSS:

- Project manager of Generacion Solar Fotovoltaica Belen Sociedad Anonima is in charge of collecting and archiving the monitored data;
- Operator of NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. is in charge of confirming the monitored data and archived data;
- Partner of NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. is responsible for project implementation, monitoring results and reporting.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL07)

The PPs explained that the electricity meters were calibrated in accordance with the regulations of Costa Rica. The PPs were requested to provide the calibration record and the related national regulations on calibration frequency.

(Summary of the response)

The PPs explained that the electricity meters are owned by the National Grid

Company, CENCE. The PPs provided the calibration records conducted on 13 July 2017 and issued on 17 July 2017 by Laboratorio de Sistemas de Medición de Energía Eléctrica (hereinafter “LASIMEE”), calibration laboratory accredited by Ente Costarricence De Acreditacion (hereinafter “ECA”). The PPs also provided the related national regulations on calibration frequency. The PPs revised the MPS accordingly.

(Assessment result of the response)

By reviewing interviewing with the PPs and the calibration certificates issued by LASIMEE, the Team confirmed the both of two electricity meters owned by CENCE, which one is main and another is back up, are Schneider Electric model ION8650. These electricity meters are replaced or calibrated at an interval in accordance with the regulations of Costa Rica. Therefore this issue was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

By reviewing the monitoring methods/procedures, the means of implementation of the monitoring plan, the data management and QA/QC procedures, the Team concludes that the described monitoring plan of the project complies with the requirements of the methodology and/or PDD and Monitoring Guidelines, and the PPs have the ability to implement the described monitoring plan including feasibility of monitoring structure.

C.8. Modalities of Communication

<**Means of validation**>

One of the PPs, NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. with whom JQA has a contractual relationship, provided Modalities of Communication (MoC) for public inputs. The Team conducted the interviews with the signatories of the Modalities of Communication (MoC), and identified the personnel and their employment status, including the specimen signatures. The Team determines that the information of all PPs are appropriate and that it applies the latest version of MoC form, however, an issue was raised and resolved as described below in the findings section.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL08)

The MoC needs to be fully filled in: dates, signatures, positions, names and TPE

information are left blank.

(Summary of the response)
The PPs completed the MoC by fully filling in the blank column.

(Assessment result of the response)
The Team confirmed that the MoC was complete.

<**Conclusion based on reporting requirements**>
Please state conclusion based on reporting requirements.
The Team concludes that the final MoC complies with all relevant forms and requirements.

C.9. Avoidance of double registration

<**Means of validation**>
It is confirmed by a review of the relevant website (e.g. UNFCCC website, Markit Environmental Registry, etc.) that the project has not been registered under other international climate mitigation mechanisms. The PP provided a written confirmation stating the avoidance of double registration.

<**Findings**>
Please state if CARs, CLs, or FARs are raised, and how they are resolved.
No outstanding issue was raised.

<**Conclusion based on reporting requirements**>
Please state conclusion based on reporting requirements.
The Team concludes that the proposed JCM project is not registered under the other international climate mitigation mechanisms at the stage of validation.

C.10. Start of operation

<**Means of validation**>
The start date of operation was indicated as 01/04/2018 in Section D. of the PDD. By the interviews with the PPs, the PPs explained the starting date of the project operation is 01/11/2017 when the solar power plant was connected to the grid to start the electricity generation. Considering this fact, an issue was raised and resolved as described in the findings section below.
The Team confirmed that this starting date is not before January 1, 2013.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

(Issue raised as CL09)

The PPs explained the starting date of the project operation is 01/11/2017 when the solar power plant was connected to the grid to start the electricity generation. However, in the Section A.5 of the PDD the starting date was 1 April 2018 which was inconsistent with the explanation. The PPs were requested to correct the starting date in the PDD in “DD/MM/YYY” format and provide its evidences (e.g. operation permission from the grid or installation record of the solar PV system).

(Summary of the response)

The PPs provided the permission issued by CENCE to Coope Guanacaste, which is dated 01/11/2017, stating that CENCE permitted the project to start the commercial electricity generation. The PPs revised the starting date of the project operation in the Section A.5 of final PDD as well as the Section C.3 to be consistent with the actual start date of the operation.

(Assessment result of the response)

The Team confirmed the starting date of the project operation was revised appropriately in the final PDD. Therefore this issue was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The Team concludes that the start of the operating date of the project is correct and does not predate 01/01/2013, as required by the Guideline of the JCM projects.

C.11. Other issues

<**Means of validation**>

No other issue was identified.

<**Findings**>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No outstanding issue was raised.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

Not applicable.

D. Information on public inputs

D.1. Summary of public inputs

The PDD of the project, which was submitted in line with the Project Cycle Procedure, was made publicly available through the JCM website for public inputs. The duration of call for public inputs on the PDD was 30 calendar days subsequent to the publication of the PDD, and it started from 29/08/2018. The specific JCM website is as below: https://www.jcm.go.jp/cr-jp/projects/49

D.2. Summary of how inputs received have been taken into account by the project participants

No comment was received during the period of the public comments, covering 29/08/2018 to 27/09/2018; therefore, no action was required to be taken into due account by the PPs.

E. List of interviewees and documents received

E.1. List of interviewees

・ Erick Herra, Project Manager, Coope Guanacaste ・ Sebastian Ledezma, Resident Engineer, Panasonic ・ Gerardo Aguilar, Senior Managing Director, MGM Innova Capital, Representative Generacion Solar Fotovoltaica ・ Alfredo Nicastro, SVP Operations, MGM Innova Consulting, Contact Engineer and Representative Generacion Solar Fotovoltaica ・ Ikuya Ueda, Senior Consultant, Socio&Eco Strategic Consulting Unit, NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.

E.2. List of documents received

1	Project Design Document (for public comments) (JCM_CR_F_PDD_ver01.0.docx)

2	Monitoring Plan Sheet and Monitoring Structure Sheet (for public comments) (JCM_CR_AM001_ver01.0_for publication.xlsx)
3	Modalities of communications statement submitted together with the PDD for publication (JCM_CR_F_MoC_ver01.0.pdf)
4	Modalities of communications statement, a validated version for submission of request for registration (final) (JCM_CR_F_MoC_ver01.0.pdf)
5	JCM Approved Methodology JCM_CR_AM001 " Installation of Solar PV System, Ver. 01.0"
6	JCM_CR_AM001 Monitoring Plan Sheet (JCM_CR_AM001_ver01.0)
7	JCM Glossary of Terms (JCM_CR_Glossary_ver01.0)
8	JCM Project Cycle Procedure (JCM_CR_PCP_ver02.0)
9	JCM Modalities of Communication Statement Form (JCM_CR_F_MoC_ver01.0.pdf)
10	JCM Guidelines for Developing Project Design Document and Monitoring Report (JCM_CR_GL_PDD_MR_ver03.0)
11	JCM Project Design Document Form (JCM_CR_F_PDD_ver03.0.pdf)
12	JCM Guidelines for Validation and Verification (JCM_CR_VV_ver01.0.pdf)
13	JCM Validation Report Form (JCM_CR_F_Val_Rep_ver01.0.docx)
14	Location information of the project
15	Company profile of Generacion Solar Fotovoltaica Belen Sociedad Anonima Coope Guanacaste
16	Company profile of NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, INC.
17	Permission issued by CENCE to Coope Guanacaste, which is dated 01/11/2017

18	Statutory lifetime (i.e. legal durable years) indicated by the website of National Tax Agency (NTA) as the evidence for the Expected operational lifetime of project, http://elaws.e-gov.go.jp/search/elawsSearch/elaws_search/lsg0500/detail?lawId=340M50000040015
19	Specifications of Solar PV system -Photovoltaic module HIT VBHN325SJ47 N325 Panasonic -Sunny Central 2200 (Inverter) -Weidmuller Combiner Box -Schletter FS Duo for ground mount PV installation
20	JET_Certificate_PV_IEC61215_61730-1_61730-2
21	No.21-1 Specifications of electricity meter and paranometer No.21-2 Specificatio of power meter ION8650
22	Single line diagram
23	No.23-1 Environmental Organic Law No.23-2 Decree 31849
24	No.24-1 (Spanish) Resolución Nº 2558-2015-SETENA: PROYECTO GENERACIÓN SOLAR FOTOVOLTAICO JUANILAMA EXPEDIENTE ADMINISTRATIVO N° D1-13115-2014-SETENA No.24-2 (English) Resolution No.2558-2015-SETAENA :PROJECT GENERATION SOLAR JUANILAMA ADMINISTRATIVE FILE NO.D1-13115-2014-SETENA No. 24-3 Environment Effect Investigation
25	LSC Meeting Minutes (Belen PV)
26	LSC Presentation (Belen PV)_final
27	Yearly estimation of power generation output for the project solar PV system -Caluculation result -Carbon emission factor -Caluculation sheet of generation output -Simulation of electricity generation
28	No.28-1 Monitoring System_Sunny Portal No.28-2 Calibration certification MW-1705A0557-02 No.28-3 Calibration certification MW-1705A0558-02 No.28-4 Regulation for electricity energy meter use, function, and monitoring(AR-NT-SUMEL) No.28-5 English Translation of the No.28-3

31	Final Project Design Document (for request for registration) (JCM_CR_F_PDD_ver02.0.docx)
32	Monitoring Plan Sheet and Monitoring Structure Sheet (for request for registration) (JCM_CR_AM001_ver01.0_for registration.xlsx)

Annex Certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers

Please attach certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers.

Statement of competence

Name: Ms. Sachiko Hashizume

Qualified and authorized by Japan Quality Assurance Organization.

Function	Date of qualification
Validator	2015/11/20
Verifier	2015/11/20
Team leader	2018/6/22

Technical area within sectoral scopes	Date of qualification
TA 1.1. Thermal energy generation	2015/11/20
TA 1.2. Renewables	2015/11/20
TA 3.1. Energy demand	2015/11/20
TA 4.1. Cement and lime production	-
TA 4.6. Other manufacturing industries	-
TA 5.1. Chemical industry	-
TA 10.1. Fugitive emissions from oil and gas	-
TA 13.1. Solid waste and wastewater	2015/11/20
TA 14.1. Afforestation and reforestation	-

Statement of competence

Name: Mr. Hiroshi Motokawa

Qualified and authorized by Japan Quality Assurance Organization.

Function	Date of qualification
Validator	2014/12/22
Verifier	2014/12/22
Team leader	2014/12/22

Technical area within sectoral scopes	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.1. Cement and lime production	2014/12/22
TA 4.6. Other manufacturing industries	2014/12/22
TA 5.1. Chemical industry	-
TA 10.1. Fugitive emissions from oil and gas	-
TA 13.1. Solid waste and wastewater	2014/12/22
TA 14.1. Afforestation and reforestation	-