

JCM Verification Report Form

A. Summary of verification

A.1. General Information

Title of the project	Small scale solar power plants for commercial facilities in island states
Reference number	PW001
Monitoring period	23/10/2014-30/11/2015
Date of completion of the monitoring report	17 Dec.2015
Third-party entity (TPE)	Japan Management Association (JMA)
Project participant contracting the TPE	Pacific Consultants Co., Ltd. (PCKK)
Date of completion of this report	22 Jan.2016

A.2 Conclusion of verification and level of assurance

Overall verification opinion	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative
<input checked="" type="checkbox"/> Unqualified opinion	<p>Based on the process and procedure conducted, <i>Japan Management Association</i> (TPE's name) provides reasonable assurance that the emission reductions for <i>Small scale solar power plants for commercial facilities in island states</i> (project name)</p> <ul style="list-style-type: none"> ✓ Are free of material errors and are a fair representation of the GHG data and information, and ✓ Are prepared in line with the related JCM rules, procedure, guidelines, forms and other relevant documents
<p><i>(If overall verification opinion is negative, please check below and state its reasons.)</i></p> <input type="checkbox"/> Qualified Opinion <input type="checkbox"/> Adverse opinion <input type="checkbox"/> Disclaimer	<State the reasons>

A.3. Overview of the verification results

Item	Verification requirements	No CAR or CL remaining
The project implementation with	The TPE determines the conformity of the actual project and its operation with the eligibility criteria of	<input checked="" type="checkbox"/>

Item	Verification requirements	No CAR or CL remaining
the eligibility criteria of the applied methodology	the applied methodology.	
The project implementation against the registered PDD or any approved revised PDD	The TPE assesses the status of the actual project and its operation with the registered/validated PDD or any approved revised PDD.	<input checked="" type="checkbox"/>
Calibration frequency and correction of measured values with related requirements	If monitoring Option C is selected, the TPE determines whether the measuring equipments have been properly calibrated in line with the monitoring plan and whether measured values are properly corrected, where necessary, to calculate emission reductions in line with the PDD and Monitoring Guidelines.	<input checked="" type="checkbox"/>
Data and calculation of GHG emission reductions	The TPE assesses the data and calculations of GHG emission reductions achieved by/resulting from the project by the application of the selected approved methodology.	<input checked="" type="checkbox"/>
Avoidance of double registration	The TPE determines whether the project is not registered under other international climate mitigation mechanisms.	<input checked="" type="checkbox"/>
Post registration changes	The TPE determines whether there are post registration changes from the registered PDD and/or methodology which prevent the use of the applied methodology.	<input checked="" type="checkbox"/>

Authorised signatory:	Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>
Last name: Yasui	First name: Ryouichi
Title: Senior Executive of GHG Certification Center, JMA	
Specimen signature:	Date: 22/01/2016

B. Verification team and other experts

	Name	Company	Function*	Scheme competence*	Technical competence*	On-site visit
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	Kenji Suzuki	JMA	Team Leader	<input checked="" type="checkbox"/>	Technical competence qualified	<input checked="" type="checkbox"/>
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	Masahiro Hirakawa	JMA	Team Member	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	Motoyuki Matsumoto	JMA	Internal Reviewer	<input checked="" type="checkbox"/>	Technical competence qualified	<input type="checkbox"/>
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	Masao Tomizawa	JMA	Internal Reviewer	<input checked="" type="checkbox"/>	Technical competence qualified	<input type="checkbox"/>

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 verification, findings and conclusions based on reporting requirements

C.1. Compliance of the project implementation and operation with the eligibility criteria of the applied methodology

<Means of verification>

Approved methodology “Displacement of Grid and Captive Genset Electricity by a Small-scale Solar PV System, Ver. 01.0 (Ref.2)” was applied to the JCM project. Verification team assessed the compliance of the project implementation and operation with the eligibility criteria of the applied methodology.

Verification team conducted the assessment of the project implementation and operation for the monitoring period (from 23 Oct.2014 to 30 Nov.2015) to confirm the eligibility criteria in the registered PDD (Ref.1).

- Document review was conducted using the checklist based on the “JCM Guidelines for Validation and Verification (Ref.13)”.

- Follow-up interviews and on-site visit were conducted on 10-11 Dec. 2015.

Each criterion in the registered PDD was checked as follows by document review and on-site assessment.

Criterion 1:

The equipment for solar PV system described in the registered PDD was confirmed by on-site assessment, checking “Specification of equipment (Ref.3-1-1 ~ 3, 3-2-1 ~ 3)”, and interviews with project participants (PPs). Verification team confirmed that the solar PV system was kept installing at Subproject 1 and 2 during the monitoring period.

Criterion 2:

The following descriptions in the registered PDD were confirmed during on-site assessment.

-The system of Subproject 1 displaces grid electricity.

-The system of Subproject 2 displaces grid electricity and captive electricity at the project site.

Criterion 2 was confirmed by on-site assessment, checking “Connection agreement (Ref.3-1-4, 3-2-4)”, and interviews with PPs.

Criterion 3:

The installed PV module (Kyocera KD250GX-LFB2) was confirmed by on-site assessment and checking Specification of equipment. There was no exchange of the solar PV module during the monitoring period. Verification team confirmed that the “Certificate for design qualifications (IEC 61215) and safety qualification (IEC 61730-1 and IEC 61730-2) (Ref.3-6)” for installed PV module were obtained.

Criterion 4:

Verification team confirmed that the Green Class Meters, Sunny WebBoxes and Sunny Sensor Boxes were kept installing to monitor solar PV power and irradiance at Subproject 1 and 2 during the monitoring period.

Criterion 4 was confirmed by on-site assessment with checking the monitor of solar PV power and irradiance at Subproject 1 and 2.

<Findings>

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

No CAR, CL, or FAR was raised for this section.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Verification team assessed the application of approved methodology of the JCM project with the supporting documents and on-site visit.

Verification team confirmed the compliance of the project implementation and operation with the eligibility criteria of the applied methodology.

C.2. Assessment of the project implementation against the registered PDD or any approved revised PDD

<Means of verification>

Verification team assessed the project implementation against the registered PDD by means of an on-site visit to Subproject 1 and 2 for this first verification.

Verification team checked that physical features of the project in the registered PDD were in place and that the project participants operated the project for the monitoring period as per the registered PDD.

During desk review, Monitoring Report (Ref.7) provided by the PP with following references were checked:

- The registered PDD including Monitoring Plan Sheet and Monitoring Structure Sheet,
- Final version of the validation report (Ref.9), and,
- Approved methodology.

The physical features of the project in the registered PDD were checked by the on-site assessment with following references of the validation report:

- Supporting materials of PDD for public inputs (Ref.6),
- Specification of equipment (Ref.3-1-1~3, 3-2-1~3),
- Installation manual of output power meter (Ref.3-7),
- Reference regarding Net-metering scheme in Palau (Ref.3-3),
- Document of commissioning completion of Solar PV Power Plant (Ref.3-1-5, 3-2-5), and
- Reference of "Expected operational lifetime of project" (Ref.3-4).

Also, project operation as per the registered PDD was checked by interviews with following references:

- Monitoring Structure Sheet of the registered PDD,
- Monitoring manual (Ref.12),
- Minutes of meeting of Local stakeholder consultation (28-29. Oct.2014) (Ref.5), and
- JCM Modalities of Communications Statement Form (Ref.8-1) (MoC).

During the monitoring period, there was no additional comment from local stakeholders specified in the registered PDD.

As the information described in the MoC was changed, CL5 was raised to ask PP to submit the revised MoC.

Monitoring structure was checked by interviews of the following people described in the

Monitoring Structure Sheet of the registered PDD. In addition, implementation of QA/QC procedure in line with the registered PDD and methodology requirements were checked.

-Subproject 1: Project Manager/Maintenance Manager/Technical Support

-Subproject 2: Project Manager/Chief Electrician 1/Chief Electrician 2

<Findings>

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

CL5

As the address of PP (Pacific Consultants Co., Ltd.) is changed, please submit the revised MoC.

⇒Summary of Response and Verification team Conclusion :

As the address, primary authorised signatory, alternate authorised signatory and etc. of PP (Pacific Consultants Co., Ltd.) described in the MoC were changed, “JCM Modalities of Communications Statement Form ANNEX 1 (Ref.8-2)” (MoC Annex 1) was submitted. Verification team confirmed the revised parts of the MoC by checking the MoC Annex 1.

CL5 was closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

The revised parts of the MoC were confirmed with CL5. Project participants of both countries were not changed from the registered PDD. It was confirmed by interviews with PPs and the MoC including the MoC Annex 1.

Verification team confirmed that there was no change from the registered PDD during the monitoring period. In addition, it was confirmed that operational and management structure described in the Monitoring Structure Sheet of the registered PDD was conducted during the monitoring period. The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD.

Verification team confirmed that the implemented project was operated during the monitoring period in accordance with the registered PDD.

C.3. Compliance of calibration frequency and correction of measured values with related requirements

<Means of verification>

Compliance of calibration frequency and correction of measured values with related requirements were checked in accordance with the applied methodology and the registered PDD.

In the monitoring plan of the registered PDD, calibration frequency of monitoring point No.(1) (the total quantity of the electricity generated in the project) was described that “The electricity

meter is calibrated or replaced every five years.”

Calibration or replacement of electricity meter was not required during this monitoring period.

Each electricity meter at subproject 1 and 2 was checked during on-site assessment. The same electricity meters were kept installing to monitor solar PV power.

CL1, CAR1 and CL4 were raised to check the description of the “Measurement method and procedure” of Monitoring Report.

<Findings>

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

CL1

Please submit the evidence of the installation date of the electricity meter (Subproject 1: 23 Oct.2014, Subproject 2: 4 Dec.2014).

⇒Summary of Response and Verification team Conclusion :

Verification team confirmed that electricity meters were started measuring on the day of commissioning completion (Subproject 1: 23 Oct.2014, Subproject 2: 4 Dec.2014). It was confirmed by the description of commissioning in the "Document of Commissioning completion of Solar PV Power Plant (Ref.3-1-5, 3-2-5)" and interviews with project manager of installation vendor of solar PV systems. As power of inverter was "ON" on that day (Subproject 1: 23 Oct.2014, Subproject 2: 4 Dec.2014), electricity meters were started measuring from indication zero.

CL1 was closed, and CAR 1 was raised.

CAR1

It is described that "Two electricity meters are installed at this project. The one was installed on 23 October 2014 at subproject 1 and the other was installed on 4 December 2014 at subproject 2." in Monitoring Report. However, electricity meters were started measuring on that day instead of installation. The description of the Monitoring Report needs to be revised.

⇒Summary of Response and Verification team Conclusion :

The description of “Measurement method and procedure” of the Monitoring Report (Ref.7) was revised.

Verification team confirmed that the Monitoring Report was revised appropriately.

CAR 1 was closed.

CL4

Please clarify the starting date of calibration period of five years.

⇒Summary of Response and Verification team Conclusion :

The description of “Measurement method and procedure” of the Monitoring Report (Ref.7) was

revised.

Verification team confirmed that the Monitoring Report was revised to describe the starting date of calibration period of five years.

CL4 was closed.

Verification team confirmed that the new electricity meter was installed for this project at each Subproject 1 and 2. The start day of measuring electrical power generated by solar PV system was confirmed with CL 1 and CAR 1 (Subproject 1: 23 Oct.2014, Subproject 2: 4 Dec.2014). Also, the warranty of solar PV system was started on that day by following the “Document of Commissioning completion of Solar PV Power Plant (Ref.3-1-5, 3-2-5)”.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Verification team confirmed that the calibration or replacement of electricity meter for monitoring point No.(1) was not required during this monitoring period in accordance with the monitoring plan of the registered PDD.

C.4. Assessment of data and calculation of GHG emission reductions

<Means of verification>

Monitoring Report was checked as follows during document review and on-site assessment to confirm the data and calculation of GHG emission reductions. Monitoring Report was checked with the description of Monitoring Plan Sheet in the registered PDD and the approved methodology.

Parameters used for calculations were checked as follows.

- Parameters monitored ex post (Table 1 of Monitoring Report Sheet) :

Monitored values of electricity meter (Monitoring point No. (1)) were checked as following table.

- Project specific parameters fixed ex ante (Table 2 of Monitoring Report Sheet) :

CO2 emission factor used for the calculation was checked with the registered PDD and the approved methodology.

Verification team verified the reported emission reductions by comparing the source data (Ref.11-1-2, 11-2-2) and CO2 emission factor of the approved methodology.

The comparison of actual CO2 emission reductions with estimates in the registered PDD has been checked by verification team. Total amount of the electricity generated by Subproject 1 and 2 was about 8% higher than the estimated value in the registered PDD. Therefore, annual CO2 emission reductions are about 8% higher than the estimated CO2 emission reductions. It

was checked through CL6.

Parameters	Monitored values	Method to check values in the monitoring report with sources
$\Sigma E_{Gi,p}$	557.04 MWh	<p>The data used was taken from electricity meters, which were installed at Subproject 1 and 2.</p> <p>CL2 was raised to check the source data of this monitoring period. As a result of raising CL2, the source data (Ref.11-1-2, 11-2-2) of monitored value (557.04 MWh) was checked during on-site assessment.</p> <p>Also, Photographs of the electricity meter indication (power (kWh)) at the last timing of the monitoring period (Ref.11-1-3, 11-2-3) were checked to confirm the monitored value.</p>

<Findings>

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

CL2

Please submit the source data of Monitoring point No. (1) (measured data of electricity meter) for the monitoring period (23/10/2014 - 30/11/2015).

⇒ Summary of Response and Verification team Conclusion :

The measuring records of electricity meter (Ref.11-1-2, 11-2-2) for the monitoring period were submitted by PPs.

Verification team confirmed the measuring records of electricity meter as the source data of Monitoring point No. (1) for the monitoring period.

CL2 was closed.

CL6

Please submit the reason why the actual generated power during the monitoring period was higher than the estimates in the registered PDD.

⇒ Summary of Response and Verification team Conclusion :

PP explained that it was informed by the local engineering company as follows.

-The estimated generated power was calculated by local engineering company which installed solar PV systems in Palau. According to the historical data of the company, the power

generation records from other PV sites in Palau over the past 2 years have been averaging around 3.7 (kWh/day/kW: Daily generated power per kW of installed PV capacity).

-The past 2 years have been quite stormy which include super typhoons making landfall in Palau, a very rare event for Palau. Also, the estimated value in the registered PDD was calculated conservatively by using 3.6 (kWh/day/kW). It seems that they are some of the causes of higher generated power than estimates.

Verification team checked “Reference regarding estimated solar PV output (Ref.11-1-1, 11-2-1)” which was used as the reference in validation. 3.6 (kWh/day/kW) was used for the calculation of annual power generation to estimate the emission reductions (tCO₂) in the registered PDD.

Verification team confirmed that the average of daily generated power in the monitoring period (3.9 (kWh/day/kW)) was higher than the estimates due to uncertainty in environmental conditions and the conservative value used for estimates. Verification team conducted on-site assessment and document review of evidences to confirm the monitoring of generated power in accordance with the registered PDD and the applied methodology. Verification team confirmed that the monitoring was conducted appropriately.

CL6 was closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Verification team confirmed that the appropriate Monitoring Report Sheet of the applied methodology was used for Monitoring Report.

CO₂ emission reductions during monitoring period are about 8% higher than the estimated value in the registered PDD. This was checked and confirmed by raising CL6.

A complete set of source data of Monitoring point No. (1) (measured data of electricity meter) for the monitoring period (23/10/2014 - 30/11/2015) was prepared by PPs and checked by verification team. Also, it was confirmed that the appropriate emission factor (0.533 for the reference CO₂ emission factor of the grid and captive electricity) was used in accordance with the approved methodology.

Verification team confirmed that the calculation of CO₂ emission reductions was conducted appropriately in accordance with the approved methodology.

C.5. Assessment of avoidance of double registration

<Means of verification>

The following websites of CDM, JI and VCS were checked whether the projects with similar technology and location had been registered.

1) Website of UNFCCC (Project Search for CDM, JI Projects)

2) Website of IGES (IGES CDM Project Database, IGES JI Project Database)

3) Website of Verified Carbon Standard

Also, written confirmation that the project was not registered under other international climate mitigation mechanisms was submitted and checked through CL3.

<Findings>

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

CL3

Primary authorised signatory, alternate authorised signatory of PP (Pacific Consultants Co., Ltd.) described in the MoC (Ref.8-1) were changed. Please submit the written confirmation that the project is not registered under other international climate mitigation mechanisms.

⇒ Summary of Response and Verification team Conclusion :

Written confirmation (Ref.8-3) that the project was not registered under other international climate mitigation mechanisms was submitted with the revised primary authorised signatory and alternate authorised signatory.

CL3 was closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Verification team confirmed that the project was not registered under other international climate mitigation mechanisms during the monitoring period.

C.6. Post registration changes

<Means of verification>

There was no post registration change from the registered PDD and/or methodology which prevented the use of the applied methodology.

<Findings>

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

No CAR, CL, or FAR was raised for this section.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Verification team confirmed that there was no post registration change during the monitoring period.

D. Assessment of response to remaining issues

An assessment of response to the remaining issues including FARs from the validation and/or previous verification period, if appropriate

There is no remaining issue.

E. Verified amount of emission reductions achieved

Year	Verified Emissions (tCO ₂ e)	Reference	Verified Emissions (tCO ₂ e)	Project	Verified Emission Reductions (tCO ₂ e)
2014		36.8		0	36.8
2015		260.1		0	260.1
2016					
2017					
2018					
2019					
2020					
Total (tCO ₂ e)		296		0	296

F. List of interviewees and documents received

F.1. List of interviewees

Pacific Consultants Co., Ltd. (PCKK):

Mr. Shigezane Kidoura

Western Caroline Trading Company:

Ms. Anna Tsao-Abellera

Mr. Clement Gbewonyo

Mr. Samuel Palingcod

Surangel and Sons Company:

Mr. Eric Ksau Whipps

Mr. Fernando V. Gamboa

Mr. Leo Dionila

Island Engineering and Design (local engineering company which installed solar PV systems):

Mr. Stephen Swords

F.2. List of documents received

Ref.1: Project Design Document for JCM project "Small scale solar power plants for commercial facilities in island states" 3rd Edition (Registration date: 21 Apr. 2015)

Ref.2: Approved Methodology "Displacement of Grid and Captive Genset Electricity by a Small-scale Solar PV System, Ver. 01.0 "

Reference for Subproject 1 (Western Caroline Trading Company)

Ref.3-1-1: Specification of solar PV system

(Project documents: JCM model project 220.5kWp PV solar grid tied power plant

(Contractor: Island Engineering and Design, Meketii, Koror, Palau,

Commissioned: 23 October 2014, Submitted in Dec.2014))

Ref.3-1-2: Specification of output power meter of the solar PV system

(Green Class Meter specification, made by Energy Monitoring Products, Effective date:18/Nov./2013 (Contractor: Island Engineering and Design, Submitted in Dec.2014))

Ref.3-1-3: Specification of irradiance meter of the solar PV system (Sunny Sensor Boxes and Sunny WebBoxes (Specification sheet from SMA America,LLC),

(Contractor: Island Engineering and Design, Submitted in Dec.2014))

Ref.3-1-4: Reference regarding grid connection: Connection agreement (Palau Public Utilities Corporation Date:29 May 2014)

Ref.3-1-5: Reference of "Starting date of project operation" (Commissioning completion of Solar PV Power Plant):

Commissioning of WCTC Ace Hardware Warehouse Solar PV Power Plant (Island Engineering and Design (System is commissioned and operating as per design. Warranty is in effect as of October 23, 2014))

Ref.11-1-1: Reference regarding estimated solar PV output:

Estimates are submitted by ISLAND ENGINEERING AND DESIGN (Date:14 Apr.2014)

Ref.11-1-2: Records of measured data of electricity meter (Revenue meter) : kWh Reading ACE

Ref.11-1-3: Photograph of the power (kWh) indication at the last timing of the monitoring period

Reference for Subproject 2 (Surangel and Sons Company)

Ref.3-2-1: Specification of solar PV system:

(Project documents: JCM model project 150.0kWp PV solar grid tied power plant

(Contractor: Island Engineering and Design, Meketii, Koror, Palau,

Commissioned: 4 December 2014, Submitted in Dec.2014))

Ref.3-2-2: Specification of output power meter of the solar PV system

(Green Class Meter specification, made by Energy Monitoring Products, Effective date:18/Nov./2013 (Contractor: Island Engineering and Design, Submitted in Dec.2014))

Ref.3-2-3: Specification of irradiance meter of the solar PV system (Sunny Sensor Boxes and Sunny WebBoxes (Specification sheet from SMA America,LLC),

(Contractor: Island Engineering and Design, Submitted in Dec.2014))

Ref.3-2-4: Reference regarding grid connection:

Connection agreement (Palau Public Utilities Corporation Date:29 May 2014)

Ref.3-2-5: Reference of "Starting date of project operation" (Commissioning completion of Solar PV Power Plant):

Commissioning of SAS Supercenter Solar PV Power Plant (Island Engineering and Design (System is commissioned and operating as per design. Warranty is in effect as of December 4, 2014))

Ref.11-2-1: Reference regarding estimated solar PV output:

Estimates are submitted by ISLAND ENGINEERING AND DESIGN (Date:15 Apr.2014)

Ref.11-2-2: Records of measured data of electricity meter (Revenue meter): SURANGEL BLDG Solar Power Monthly Reading

Ref.11-2-3: Photograph of the power (kWH) indication at the last timing of the monitoring period

Ref.3-3: Reference regarding Net-metering scheme in Palau:

The Senate EIGHTH OLBIL ERA KELULAU (RPPL No.8-39)

Approved by Johnson Toribiong President Republic of Palau: 6 Jan.2012

Ref.3-4: Reference of "Expected operational lifetime of project": Warranty period of PV module (20years) and Inverter (10years) for this project is confirmed by the followings.

- Limited Warranty for Kyocera Photovoltaic Module(s) (KKM-SE-00001-07: 190713)
- SMA America LLC Factory Warranty (US SO 107-0080-001 rev.06)

Ref.3-6: Certificate for design qualifications (IEC 61215) and safety qualification (IEC 61730-1 and IEC 61730-2) (Date of issue: 2 June 2014, Japan Electrical Safety & Environment Technology Laboratories)

Ref.3-7: Green Class Meter (Output power meter of the solar PV system) Installation Manual

Ref.5: Minutes of meeting of Local stakeholder consultation (28-29. Oct.2014)

Ref.6: Supporting materials of PDD for public inputs (Small scale solar power plants for commercial facilities in island states (submitted by PCKK))

Ref.7: Monitoring Report (Name of Excel file: JCM_PW_AM001_ver01.0_PW001rev) (17 Dec.2015)

Ref.8-1: JCM Modalities of Communications Statement Form (Date of Submission : 3 Mar.2015)

Ref.8-2: JCM Modalities of Communications Statement Form ANNEX 1 (Date of Submission : 16 Dec.2015)

Ref.8-3: Written confirmation from PCKK (Declaration from Mr.Masamichi WATANABE, PCKK on 18 Dec.2015)

Ref.9: Validation report for PW001 (6 Apr. 2015)

Ref.12: Monitoring Manual Ver.2 (Prepared by Pacific Consultants Co., Ltd., Tel/Fax of PCKK)

was revised on 19. Nov. 2015)

Ref.13: Joint Crediting Mechanism Guidelines for Validation and Verification (JCM_PW_GL_VV_ver01.0)

Ref.14: Joint Crediting Mechanism Guidelines for Developing Project Design Document and Monitoring Report (JCM_PW_GL_PDD_MR_ver01.0)

Ref.15: Joint Crediting Mechanism Project Cycle Procedure (JCM_PW_PCP_ver02.0)

Ref.16: Joint Crediting Mechanism Glossary of Terms (JCM_PW_Glossary_ver01.0)

Annex Certificates or curricula vitae of TPE's verification 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.

**Certificate of Competence
for Validation/Verification team**

GHG Certification Center
Japan Management Association



Scheme:

The Joint Crediting Mechanism (JCM)

Project Title:

Small scale solar power plants for commercial facilities in island states

Validation or Verification:


Verification

Name	Qualification *1	Leader/Member/ Technical expert/ Technical Reviewer(TR)	Qualification of Technical area (Renewables)*2	JCM scheme competence
Mr. Kenji Suzuki	Lead Validator/ Verifier	Leader	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Masahiro Hirakawa	Lead Validator/ Verifier	Member	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Competence of Validation Team	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

*1Qualification in accordance with "JMACC's Procedures for Contract and Evaluation of Validators/Verifiers and Technical Experts (GA-110)"

*2Competence Requirement in accordance with Competence for Technical area sheet (GA-110-08)

Date *11. Nov. 2015*



Kenji Suzuki
Director of Validation & Verification Dept.
GHG Certification Center
Japan Management Association

**Certificate of Competence
for Technical Review team**

GHG Certification Center
Japan Management Association



Scheme:

The Joint Crediting Mechanism (JCM)

Project Title:

Small scale solar power plants for commercial facilities in island states

Validation or Verification:


Verification

Name	Qualification ^{*1}	Leader/Member/ Technical expert/ Technical Reviewer(TR)	Qualification of Technical area (Renewables) ^{*2}	JCM scheme competence
Mr. Motoyuki Matsumoto	Lead Validator/ Verifier	Technical Reviewer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dr.Masao Tomizawa	Technical expert	Technical Reviewer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Competence of Technical Review Team	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

^{*1}Qualification in accordance with "JMCC's Procedures for Contract and Evaluation of Validators/Verifiers and Technical Experts (GA-110)"

^{*2}Competence Requirement in accordance with Competence for Technical area sheet (GA-110-08)

Date 29. Dec. 2015.



Kenji Suzuki
Director of Validation & Verification Dept.
GHG Certification Center
Japan Management Association