# JCM Validation Report Form

## A. Summary of validation

A.1. General Information

| | |
|---|---|
| Title of the project | Introduction of 14MW floating solar power system in Vientiane |
| Reference number | LA0002 |
| Third-party entity (TPE) | Bureau Veritas Certification Holding SAS (TPE-LA-003) |
| Project participant contracting the TPE | TSB Co., Ltd. |
| Date of completion of this report | 01/03/2022 |

A.2 Conclusion of validation

| | |
|---|---|
| Overall validation opinion | ☒ Positive<br>☐ 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 Lao People's Democratic Republic, in line with Laos's 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.<br>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: Chanyawut | First name: Engsuwan |
| Title: GHG and SD Verifier | |
| Specimen signature: [redacted] | Date: 01/03/2022 |

## B. Validation team and other experts

| | Name | Company | Function* | Scheme competence* | Technical competence* | On-site visit |
|---|---|---|---|---|---|---|
| Mr. ☒ Ms. ☐ | Chanyawut Engsuwan | Bureau Veritas Certification Holding SAS | Team Leader | ☒ | Authorrized | ☐ |
| Mr. ☒ Ms. ☐ | Dr Chumpol Sirprapakorn | Bureau Veritas Certification Holding SAS | Internal Reviewer | ☒ | Authorrized | ☐ |
| Mr. ☐ Ms. ☐ | | | | ☐ | | ☐ |
| 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>**

The PDD version 02 file name "JCM_LA_F_PDD_ver03.0_r6.docx" was checked and the TPE could confirmed the PDD is completed in accordance with the latest version of Project Design Document Form version 3.0 (JCM_LA_F_PDD_ver03.0). The PDD drafted in line with the latest version of Joint Credit Mechanism Guildelines for devolping Project Design Document and Monitoring Report (JCM_LA_GL_PDD_MR_ver03.0)

**<Findings>**

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

No issue was raised to the requirement.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE concluded that the PDD is completed using the latest version of the PDD forms

| |
|---|
| appropriate and darfted in line with the Joint Credit Mechanism Guildelines for devolping Project Design Document and Monitoring Report. |

C.2. Project description

**<Means of validation>**

The PDD version 2, section A. Project description states that the project involves installation of 14 MW 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. 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.

The TPE has assessed the PDD and the supporting document throught the desk review and remote site visit via Zoom aplication on 23/11/2021 to validate the requirements about accuracy and completeness of the project description.While, justification to conduct the remote site visit are COVID-19 pandemic circumstance which caused travel across the border between Thailand and Laos to the site is prohibited. While solar power plant staff interview and remote site visit could be conducted via function video conference of Zoom application as well. Therefore, the sufficient information and supporting evidence relate to the project description was obtained during document review and remote site visit.

**<Findings>**

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

<CL01>

The PPs are requested to provide specification of the following main equipment under project activity along with supporting evidence i.e. PV panel, inverter, energy meter and pyranometer

<Comments from PPs>

Please refer documents i.e. PV spec.pdf, Inverter spec.pdf, Energy meter spec.pdf and Pyranometer spec.pdf

<Assessment from the TPE>
It is confirmed to the review of above files along with romote site visit that the main equipement under the project activity are accurate and complete as per description in the PDD. So CL01 is closed.

<CL02>
Please confirm possibility of the sentence “The electricity produced by the Project is supplied to national grid of Lao PDR which is managed by EDL and displacing electricity generation by fossil-fuel based power plant”. Due to the fact that electricity in national grid of Lao DPR is not generated from fossil-fuel based power plan only.

<Comment from PPs>
The PPs modified the article as follows;
[Before]
and displacing electricity generation by fossil-fuel based power plant,”
[After]
and displacing the grid electricity,”

<Assesement from the TPE>
The TPE reviewed the revised PDD and accept the modification, due to the fact that the electricity generated from the project will displace the grid electicity. So CL02 is closed.

<CL04>
The PPs are requested to provide the supporting evidence to justify the “Expected operational lifetime of project is 17 years”

<Comment from PPs>
Key factor for power generation is PV module where guaranteed for output 25years, per their spec. The contract with EDL is 25years, and land use contract also covers same term.
17 years lifetime using PV equipment useful life assigned by JCM.

<Assessment from the TPE>
The TPE review the comment from PPs along with specification of PV Panel and found that the lifetime of main equipement "PV panel" is consistence with the PDD. So the TPE accept the clarification and CL04 is closed.

<CL05>

The PPs are requested to justify the sentence “advance and efficient solar power system” along with supporting evidence provision.

<Comment from PPs>
The uniqueness of this PV project is “floating”.
The advantage at efficiency of on-water floating is to generate higher power output by lowering panel surface temperature on the water comparing to on the land or roof. The panel output lower 0.4% every Celsius degree from 25 degree referring PV spec.pdf.

<Assessement from the TPE>
The TPE review the comments from PPs along with the PV specification and found that the proposed project offer higher efficiency than conventional Solar PV and also tho proposed project is the first of its kind for Lao PDR. So the TPE accept the clarification and CL05 is closed.

<CL06>
The PPs are requested to clarify the sentence “provided financial support of less than half of the initial investment for the project” along with the supporting evidence provision.

<Comment from PPs>
Total subsidy from Japan government is written in the final subsidy notification.pdf.

<Assessement from the TPE>
The TPE review the comments from PPs along with the supporting evidence, regarding the subsidy from Japan and found that financial support from Japan in less than half of investment corresponding to the PDD. So the TPE accecpt the clarification and CL06 is closed.

<CL07>
The PPs are requested to provide the detailed process flow diagram of the system to confirm accuracy of C.2 Figure.

<Comment from PPs>
Please refer “Laos daily irradence (+Monitoring structure).xlsx, which is manual for the output data check.

<Assessement from the TPE>
The TPE review the comment from PPs along with the above monitoring sheet and the fact

finding during remote site visit and accept that process flow diagram of the system is in line with the C.2 Figure. So CL07 is closed.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE conclude that the description of the proposed project in the PDD complies with the supporting document and information obtained during desk review and remote site visit. The project description is complete according to the Joint Credit Mechanism Guildelines for devolping Project Design Document and Monitoring Report, and the TPF could confirm that the project description in the PDD is accurate, by mean of desk review and remote site visit.

C.3. Application of approved methodology(ies)

**<Means of validation>**

The approved methodology JCM_LA_AM002_ver01.0 "Installation of Solar PV system" is applied to the proposed project. The methodology was approved on 10 August 2018 and valid at the time of validation.

The TPE has reviewed whether the selected methodology is appicable to the proposed project. The project applicability was checked against all the eligibility criteria as per the approved methodology. The comparision between project information versus the description specified in the methodology of each eligibility crititria along with assessment & conclusion, can be summarized as follows;

Criterion 1

Description specified in the methodology

The project installs solar PV system(s).

Project information

The solar PV system is installed at three unused ponds in Vientiane.

Assessment & conclusion

The TPE conduct document review which are power purchase agreement between EDL & TPG Laos Co., Ltd. dated November 2018 and As-built drawing of the project to confirm configuration of the system along with remote site visit to investigate solar PV system installation and operation at the site. Therefore, TPE conclude that project activity consist of solar PV system installation, in accordance with Criterion 1.

Criterion 2

Description specified in the methodology
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).

Project information
The PV module installed in the project have been certified for IEC 61215, IEC 61730-1, IEC 61730-2.

Assessment & conclusion
The TPE review testing certificate from TUV SUD which indicate that the PV modules brand "ECONNESS ENERGY" series "EN156P-72-320 TSB" are certified for design qualificaiton under IEC 61215 standard and safety qualification under IEC 61730 standard. Therefore, The TPE conclude that the PV module installed in the project activity have been certified as per the above standards.

Criterion 3
Description specified in the methodology
The equipment used for monitoring output power of the solar PV system(s) and irradiance is installed at the project site.

Project information
Electricity meter and pyranometer have been installed at the project site to monitor output power and irradiance respectively

Assessment & conclusion
The TPE conduct remote site visit to investigate power meter and the pyranometer installation and found 2 power meter brand "ITRON" serial number "M17-01-00131" and brand "ITRON" serial number "M17-01-00132" and 2 pyranometer brand "EKO" serial number "20064262 and brand "LP Pyra" serial number '21009833" have been installed and use to monitor irradiance at the site. Therefore, the TPE conclude that the project activity consist of installation of equipment used for monitoring output power and irradiance at the site.

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

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE concludes that the proposed project is eligible for applying the valid version of the approved methodology, JCM_LA_AM002_ver01.0, and all eligibility critria have been met by the proposed project.

C.4. Emission sources and calculation of emission reductions

**<Means of validation>**

As per the refered methodology JCM_LA_AM002_ver01.0 "Installation of Solar PV system", the reference emmission is GHG emsision from consumption of grid and/or captive electricity.

The proposed project involves installation of 14 MW Floating solar farm to produce and supplied electricity to the national grid of Lao PDR and contributing GHG emision by displacing the grid electricity which partly generated from fossil fuel.

Therefore, reference emission during period P are calculated by the following equation (refer to section F.2 of the methodology);

REp = EG x EFre

Where

RE = Reference emissions during the period p (tCO2/p)

EGi,p = Quantity of electricty generated by the project solar PV system i during period p (MWh/p)

EFre = Reference CO2 emission factor of grid electricity (tCO2/MWh)

The value of EGi,p is sum of electricity generated by the solar PV system. The quantity of electricity generated by the solar PV system is estimated ex-ante to be equal to 21,436 MWh/p, based on the solar irradiance published by NASA Atmosphereic Science Data Center and taken into account the effiency loss in solar PV system and loss due to ambience temperature as well.

Regarding the EFre is emission factor of the electricity system (Case 1 as per the methodology "JCM_LA_AM002") which calculated in a conservative manner by by applied the effiency of the most efficient gas-fired power plant. As a result, the emsision factor for the grid is set to be 0.319 tCO2/MWh

While project emssions is GHG emision from genereation of electricity from solar PV system which asssumed to be zero as per the methodology "JCM_LA_AM002"

Therefore, the GHG emission reduction during period P are calculated by following equation (refered H to section of the methodology "JCM_LA_AM002");
ERp = REp - PEp
Where
ERp = Emission reduction during the period p (CO2/p)
REp = Reference emission during the period p (CO2/p)
PEp = Project Emission during the period p (CO2/p)

Then, the annual emission are calculated as follows;
ERp = REp - PEp
= (EGi,p x EFre) - 0
= 21,436 MWh x 0.319 tCO2/MWh
= 6,838 tCO2/MWh

It is confirm through the review of relevant document and interview with the PPs that all the GHG emission sources specified by the appiled methodology are indentified, the reference emmission, project emmision and emmsion reduction in the calculated and shown in the PDD version 2 file name "JCM_LA_F_PDD_ver03.0_r5" and Monitoring Plan Sheet file name "JCM_LA_AM002_ver01.0" are correct.

**<Findings>**
*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*
<CL09>
The PPs are requested to provide the source of EGi,p “Quantity of the electricity generated by the project solar PV system i during the period p” ex post.

<Comment from PPs>
Please refer CO2 reduction calculation.pdf

<Assessement from the TPE>
The TPE reviewed the supporting evidence "CO2 reduction calculation" and found that the parameter EGi,p is estimated based on the solar irradiance published by NASA Atmosphereic Science Data Center and taken into account the effiency loss in solar PV system and loss due to ambience temperature as well. Therefore, the TPE accept that the source of EGi,p is credible and CL09 is closed.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE confirm that all emission sources and GHG types specify in the approved methodology are appropriately indentified. The TPE confirm that the value of parameter to be monitored ex-post in the Monitoring Plan Sheet is correctly estimated and the value for the project-specific parameter to be fixed ex-ante in the Monitoring Plan Sheet is also correctly determine in accordance with the type of proposed project. The emission reduction calculations is derived from equations stated in methodology as well.

C.5. Environmental impact assessment

**<Means of validation>**

The PDD state that an Environmental Impact Assessment (EIA) is not required because the proposed project is exempt from the law. The TPE review the "Ministerial Agreement on the Endosement and Promulgation of List of Investment Projects and Activities Requiring for Conducting the Initial Enviromental Examination or Environmental and Social Impact Assessment" announced by Ministry of Natural Resources and Environment of Laos PDR which indicate type of investment project need to conduct ESIA (Environmental and Social Impact Assessment) but found no indication that any scale or type of solar project need to conduct EIA.

**<Findings>**

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

<CL8>

The PPs are requested to clarify relevant EIA regulation of solar project in Lao PDR, along with the supporting evidence provision. In order to confirm that the project is not required to conduct EIA.

<Comment from PPs>

We have taken IEE (Initial Environmental Examination) per requirement of Ministry of Natural Resource and Environment. Department of Planning and Investment released PDA with based on IEE result as one of PDA requirement. Reference document are IEE ESIA.pdf IEE certification 1 and 2.pdf

<Assessement from the TPE>

The TPE review the relevant regulation from Laos Ministry of Natural Resource and Environment and found no obligation for Solar Project to conduct the EIA or IEE. However,

PPs decide to conduct IEE based on obligation of other renewable energy project (wind turbine) to conduct the IEE. So CL08 is closed.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE concludes that the proposed project does not require the EIA. Therefore the proposed project implementation is in line with procedures as required by the Laos PDR regarding the EIA.

C.6. Local stakeholder consultation

**<Means of validation>**

The project participant conducted a local stakeholder consultation (LSC) on 20th November 2020. Due to the travel restriction caused by COVID-19, the LSC was conducted by teleconference via Zoom application. 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 2 comments about the process of PDD after this LSC and stakeholder expect this type of project will be disseminated respectivelya and then the project participant did clarified each comment properly during LSC.

**<Findings>**

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

No issue was raised to the requirements.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE conclude that the project participant have conducted LSC which including invited comments from stakeholder. the summary of comments received is provided in the PDD and The PP have taken due account of all the comment received.

C.7. Monitoring

**<Means of validation>**

The Monitoring Plan of the proposed project comply with the approved methodology JCM_LA_AM0002_ver01.0. The monitoring parameter is total quantity of the electricity generated in the project during period p (EGi,p) is measured by eletricicty meter. The monitoring point is AC output of inverter. The reading is taken manually under responsibility of project engineer of TPG Lao Co., Ltd., and then monitoring data will be checked and comfirmed by Deputy project manager of TPG Lao Co., Ltd. While sale manager of TPG Lao Co., Ltd. will be in charge of collecting and archiveing the monitoring data for two years after final issuance of the credits. The electricity meter will be calibrated at an annually following the Electricity du Lao (EDL)'s regulation. The accuracy of electricity meter is Class 0.5s (0.5%) It is confirmed through the review of the PDD, the Monitoring Plan along with the interview with the PPs that the monitoring plan is complies with the requirements of the approved methodology and the PPs have sufficient resources, i.e. personal, equipment, work instruction to implement the monitoring activity in line with the monitoring plan.

**<Findings>**

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

CL10>

The PPs are requested to confirm the Method of reading (manually or electronically using data log), Reference standard to maintain the energy meter (manufacture standard, national standard, etc.) and Responsible person on "In charge of collecting and archiving the monitoring data"

<Comment from PPs>

PPs revised the Monitoring Plan Sheet and Monitoring Structure Sheet to confirm method of meter reading, reference standard to maintain energy meter and responsible person to in charge of collecting and archiving the monitoring data.

<Assessement from the TPE>

The TPE review the revised Monitoring Plan Sheet and found confirmation of method of meter reading, reference standard to maintain energy meter and responsible person to in charge of collecting and archiving the monitoring data and accept those revision. So CL10 is closed.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE concludes that the description of Monitoring Plan is based on the approved methodology and JCM Guidelines for Developing Project Design Document and Monitoring Report, as well as monitoring equipment for measurement are being installed and fuctioning properly. Thus the PPs have demonstrate fesibility of the monitoring structure and their abilities to implement the monitoring activity propoerly.

C.8. Modalities of Communication

**<Means of validation>**

The Modalities of Commumication (MoC) file name "JCM_LA_F_MoC_signed.pdf' signed on 16/08/2021 was checked and the TPE could confirmed the MoC is completed in accordance with the latest version of MOC Form version 01.0 (JCM_LA_F_MoC_ver01.0).

TSB Co., Ltd. is nominated as the focal point in the MoC. The MoC was signed by authorized person of representatives of TSB Co., Ltd. on 16/08/2021 and by the authorized representative of TPG Lao Co., Ltd. on 16/08/2021 along with the contact details.

The TPE has checked the the status of the authorized signatories by person interview, along with evidence found on TSB Co., Ltd. website and News on Vientiane Times "Japanses firm to build 14 MW floating solar power farm in Hadxaifong' dated 21/06/2018 indicate that Mr Isamu Kburagi is the CEO of TSB Co., Ltd. and Mr. Yoichi Kaburagi Is the president of TPG Lao Co., Ltd., in accordance with the MoC. Moreover, all corporate and personal details including specimen signature and the information in the MoC are valid and acccurate as per JCM Guidelines for Validation and Verification.

**<Findings>**

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

No issue was raised to the requirement

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE conclude that the MoC is completed and using the valid version of the form, the information and specimen signature of the PPs provided in the MoC are accurate and compliance with the requirements of the jcm Guidelines. It is demonstated that the MoC is correctly completely and dully authorized.

C.9. Avoidance of double registration

**<Means of validation>**

The MoC file name "JCM_LA_F_MoC_signed.pdf" signed on 16/08/2021 declares that the

proposed project is not registered under any other international climate mitigation mechanism other the JCM. It is confirmed by checking publicly available source of information which are JCM Lao PDR, CDM, VCS websites that the proposed project is not registered under any other international climate mitigation mechanisms, in terms of the name of entity, applied technology, scale and location. Thus, it can be concluded that the proposed project will not result in double counting of GHG emission reductions.

**<Findings>**

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

No issue was raised to the requirement

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE conclude that the proposed project is not registered under any other international climate mitigation mechanism. Therefore, the proposed project will not result in double counting of GHG emission reductions.

C.10. Start of operation

**<Means of validation>**

The installation of the 14 MW floating solar farm is completed and start commercial operation on 01/01/2020 which is supported by the certificate for commercial operation date of solar power project, issued by EDL on 02/01/2020. It is confirmed through the review of the certificate and interview with the PPs during remote validation.

**<Findings>**

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

<CL03>

The PPs are requested to clarify the criteria to determine “Starting date of project operation” along with supporting evidence provision.

<Comment from the PPs>

Please refer COD released by EDL, file name "COD.pdf"

<Assment by the TPE>

It is confirmed through the review of the certificate which state that the proposed project was Comercial Operation Date (COD) on 02/01/2021 which PPs refer to as start date of the

proposed project. So CL03 is closed.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

The TPE concludes that the starting date of project operation is set as and does not predate 01/01/2013 as required by the guideline of the JCM project.

C.11. Other issues

**<Means of validation>**

No more issues are raised in the validation of the proposed project.

**<Findings>**

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

Not applicable.

**<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

As per the JCM Project Cycle Procedure, ther PDD was made publicly available for 30 days from 15/09/2021 to 14/10/2021 to invite public comments on the following JCM website;

https://www.jcm.go.jp/la-jp/information/416

Result of above website posting is no public comment received.

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

Not applicable

## E. List of interviewees and documents received

E.1. List of interviewees

Yoichi Kaburagi, Division Manager, TSB Co., Ltd.
Shintaro Higashi, Senior Manager, NTT DATA Institute of Management Consulting, Inc.
Mena Yoshikawa, Consultant, NTT DATA Institute of Management Conculting, Inc.
Inthila Vongkhamchanh, Sale Manager, TPG Lao Co., Ltd.
Somsak Sriouabu, Project Engineer, TPG Lao., Ltd.

E.2. List of documents received

1. PDD Version 2, file name "JCM_LA_F_PDD_ver03.0_r5.docx"
2. Calculation Sheet Version 1, file name "JCM_LA_AM002_ver01.0.xlsx"
3. JCM Modality of Communication Statement, "Introduction of 14 MW floating solar power system in Vientiane" Project, date 9 august 2021
4. Expected CO2 redcution calulation sheet, file name "CO2 reduction calculation.pdf"
5. Certificate for Commencial Operation Date of Solar Power Project, file name "COD.pdf'
6. The Power Purchase Agreement between EDL and TPG Lao Ltd, dated November01, 2019
7. Energy meter SL7000 RT specification, file name "Energy meter spec.pdf"
8. Inverter Conext CL-60 specification, file name "Inverter spec.pdf"
9. PV Panel ECONESS Energy EN156P-72-320 specification, file name "PV spec.pdf"
10. Pyranometer MS-40C specification, file name "Pyranometer spec.pdf"
11. Japan Subsidy Letter, file name final subsidy notification.pdf
12. Ministerial Agreement on the Endosement and Promulgation of List of Investment Projects and Activities Requiring for Conducting the Initial Enviromental Examination or Environmental and Social Impact Assessment" announced by Ministry of Natural Resources and Environment of Laos PDR, file name "IEE ESIA.pdf"
13. Solar Power Project IEE certificate, dated 12 June 2018, file name "IEE certificate.pdf"
14. Vientiane Time, 21 June 2018 "Japan Firm to Build 14 MW floating Solar Power Farm in Hadxaifong"
15. Solar farm performance tracking sheet, file name "Laos daily irradence+Monitoring structure.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.*

1) Role of each team member;

Chanyawut Engsuwan (Team Leader)

- Desk review
- Validation site visit (remote)
- Review all finding under validation process to provide validation opinion
- Prepare validation report

Dr Chumphol Sriprpakorn (Internal Reviewer)

- Conduct internal review to ensure quality of validation process (QC)

2) CV of team member;

Extraction of "SF41VERIFIER CODE ALLOCATION, CLIMATE CHANGE VERIFIERS"

NAME: Chanyawut Engsuwan
POSITION: Team Leader
EDUCATION: B. Eng. M. Eng
RELEVANT EXPERIENCE: 5 Years in GHG verification/validation
QUALIFICATION: CDM, ISO14064, ACA, IRCA ISO 9001, IRCA ISO14001, IRCA ISO45001, ISCC EU, ISCC Plus
TECHNICAL AREA:
Energy Industries
Mining and mineral production
Energy distribution
Metal production in dustry
Energy demand
Manufacturing industries
Waste handling and disposal
Construction
Agricultural
Transport

NAME: Dr Chumpol Sriprapakorn
POSITION: Internal Reviewer
EDUCATION: B. Sc. M. Sc, Ph. D.
RELEVANT EXPERIENCE: 10 Years in GHG verification/validation
QUALIFICATION: CDM, ISO14064, ACA, IRCA ISO 9001, IRCA ISO14001
TECHNICAL AREA:
Energy Industries
Mining and mineral production
Metal production in dustry
Manufacturing industries
Waste handling and disposal