




**Validation report form for  
CDM project activities  
(Version 04.0)**

**BASIC INFORMATION**

<b>Title of the project activity</b>	10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd.
<b>Scale of the project activity</b>	<input type="checkbox"/> Large-scale <input checked="" type="checkbox"/> Small-scale
<b>Version number of the validation report</b>	02
<b>Completion date of the validation report</b>	15/12/2020
<b>Version number of the PDD to which this report applies</b>	04
<b>Date when PDD was uploaded for global stakeholder consultation</b>	03/08/2017
<b>Project participants</b>	M/s. Krishna Wind Farm Developers Pvt. Ltd.
<b>Host Party</b>	India
<b>Applied methodologies and standardized baselines</b>	AMS I.D: Version 18.0 Title: Grid connected renewable electricity generation
<b>Mandatory sectoral scopes</b>	1 : Energy industries (renewable - / non-renewable sources)
<b>Conditional sectoral scopes, if applicable</b>	Not Applicable
<b>Estimated amount of annual average GHG emission reductions or GHG removals by sinks</b>	18,123 tCO <sub>2</sub> e
<b>Name and UNFCCC reference number of the DOE</b>	LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC Ref. No.: E-0032
<b>Name, position and signature of the approver of the validation report</b>	Mr. Juan Sendín Caballero <i>Applus+ Certification Business Unit Managing Director</i> Signature: 

## SECTION A. Executive summary

>> The proposed CDM project activity is a renewable solar electricity generation project and supplying power to the Indian Grid. The power generated by the project will be replacing the equivalent amount of electricity from the Indian Grid system of India, which is dominated by fossil fuel-based grid connected power plants. The project activity is located at village Mohari, Jamkhed taluka, District Ahmednagar in Maharashtra, India.

The project activity involves the installation of 10 MW Solar Photovoltaic Project. The project activity is commissioned on 07/08/2017. This is checked and confirmed from the commissioning certificates/30/ of the project activity.

### Scope of Validation:

The scope of the validation is defined as an independent and objective review of the project design document, the project baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. Applus+ Certification have employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

### Validation process:

Applus+ Certification assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the requirements specified in the CDM M&P, the CDM Validation and Verification Standard for project activity, version 02.0, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The validation process consists of the following three phases

- Document review:
- Desk review of the CDM PDD, and other relevant documents
- Follow-up interviews with project stakeholders
- The resolution of outstanding issues and the issuance of the final validation report.

### Conclusion:

LGAI Technological Center, S.A. (Applus+ Certification) has been contracted by Krishna Wind Farm Developers Pvt. Ltd. to perform a validation of the proposed CDM project activity entitled "10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd.".

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism Validation and Verification Standard for project activity (Version 02.0) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

In our opinion, the project meets all relevant UNFCCC, CDM criteria and all relevant host country criteria. The project correctly applies methodology AMS I.D version 18.0 "Grid connected renewable electricity generation". It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project are estimated to be 126,861 tCO<sub>2</sub>e over a 7-year crediting period, averaging 18,123 tCO<sub>2</sub>e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

**SECTION B. Validation team, technical reviewer and approver****B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Lead Auditor /Technical Expert	OR	Ahirwar	Vivek Kumar	GCEES	Y	Y	Y	Y
2.	Financial Expert	OR	Ahirwar	Vivek Kumar	GCEES	Y	Y	Y	Y
3.	Auditor (Validator) (Trainee)	OR	Soni	Ravi Kant	GCEES	Y	Y	Y	Y

**B.2. Technical reviewer and approver of the validation report**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	EI	Shen	Simon	Applus+ Certification
2.	Approver	IR	Sendín	Juan	Applus+ Certification

## SECTION C. Means of validation

### C.1. Desk/document review

>> The validation is performed primarily as a document review of the publicly available project design document version 01 dated 21/07/2017, version 02 dated 17/02/2018, version 03 dated 26/04/2019 and the final version 04 dated 12/11/2020 in particular the applicability of the methodology, the baseline determination, the additionality of the project activity, the starting date of the project, the monitoring plan, the emission reduction calculations provided in the form of a spread sheet. The validation team has checked the statements mentioned in the PDD through review of documents, interviews with stakeholders.

A complete list of all documents and evidence material reviewed is included in Appendix 3 of this report.

### C.2. On-site inspection

Duration of on-site inspection: 12/09/2017				
No.	Activity performed on-site	Site location	Date	Team member
1.	Description & ownership of the project activity, additionality seriousness of CDM consideration; Baseline selection, HCA approval. Matters related to PDD and ER sheet, discussion of findings.	Mohari Village, Jamkhed taluka, District Ahmednagar in Maharashtra state	12/09/2017	Vivek Kumar Ahirwar and Ravi Kant Soni
2.	Project implementation, Organizational structure, Monitoring Plan & Methodology, Training procedures, Data management procedures		12/09/2017	Vivek Kumar Ahirwar and Ravi Kant Soni
3.	Project implementation, O&M, Training needs, Data logging		12/09/2017	Vivek Kumar Ahirwar and Ravi Kant Soni
4.	Employment to local villagers, social and economic benefits to local community due to implementation of the project activity.		12/09/2017	Vivek Kumar Ahirwar and Ravi Kant Soni

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Maske	Mr. Vishal	KWFDPL (Site Engineer)	12/09/2017	Project implementation, O&M, Training needs, Data logging.	Vivek Kumar Ahirwar and Ravi Kant Soni
2.	Kulkarni	Mr. Rahul	MITCON (Consultant)	12/09/2017	Description & ownership of the project activity, additionality, seriousness of CDM consideration; Baseline selection, HCA approval. Matters related to PDD and ER sheet, discussion of findings.	Vivek Kumar Ahirwar and Ravi Kant Soni
3.	Jadhav	Mr. Appu	KWFDPL (Technician)	12/09/2017	Monitoring Plan & calibration procedure	Vivek Kumar Ahirwar and Ravi Kant Soni

**C.4. Sampling approach**

&gt;&gt; Not applicable

**C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised**

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Demonstration of prior consideration of the CDM	-	CAR #4	-
Identification of project type	-	-	-
Description of project activity	-	CAR #3 and CAR #5	-
Application and selection of methodologies and standardized baselines	-	-	-
- Application of methodologies and standardized baselines	-	CAR #4	-
- Deviation from methodology and/or methodological tool	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	-	-	-
- Project boundary, sources and GHGs	-	-	-
- Baseline scenario	-	-	-
- Demonstration of additionality	-	-	-
- Estimation of emission reductions or net anthropogenic removals	-	-	-
- Monitoring plan	-	CAR #6	-
Start date, crediting period type and duration	-	CAR #7	-
Environmental impacts	-	-	-
Local stakeholder consultation	-	CAR #7	-
Sustainable development co-benefits	-	-	-
Approval	-	CAR #1	-
Authorization	-	CAR #1	-
Modalities of communication	-	CAR #2	-
Global stakeholder consultation	-	-	-

Others (please specify)	CL #1 and CL #2 (missing documents)	-	-
<b>Total</b>	02	07	-

## SECTION D. Validation findings

### D.1. Demonstration of prior consideration of the CDM

<b>Means of validation</b>	<p>The start date of the project activity is 29/03/2017 and same has been checked from the Engineering &amp; Procurement contract (EPC) signed by the PP with MITCON Consultancy &amp; Engineering Services Ltd /26/.</p> <p>This is the earliest date on which the PP has committed to project capital expenditure. This is found to be the earliest real action towards the implementation of the project activity in line with the project start date definition, as mentioned in the "Glossary - CDM terms version-10.0", thus it is accepted.</p> <p>The project activity has also already been implemented. Since the start date of the project activity is 29/03/2017 which is after 2<sup>nd</sup> August 2008, the project participant must inform a host party DNA and UNFCCC secretariat in writing of the commencement of the project activity and their intention to seek CDM status. Such notification must be made within 180 days of the project activity start date, using the standardized form CDM-PC-FORM.</p> <p>The project participant had submitted prior notification of commencement of the project activity and their intention to seek CDM status to the UNFCCC via email on 05/05/2017 /13/. Notification was received by the UNFCCC and acknowledgment sent to PP on 17/05/2017. This was checked and confirmed from the web site <a href="https://cdm.unfccc.int/Projects/PriorCDM/notifications/index.html">https://cdm.unfccc.int/Projects/PriorCDM/notifications/index.html</a>.</p> <p>It is also verified that the email to UNFCCC secretariat (dated 05/05/2017) enclosing prior CDM consideration form was also copied to Indian DNA (Email ID: <a href="mailto:shard.sapra@nic.in">shard.sapra@nic.in</a>). Hence it is concluded that the PP notified the host party DNA and the UNFCCC within 180 days of start date of the project activity regarding the commencement of the project activity and their intention to seek CDM Status.</p>
<b>Findings</b>	CAR #4 was raised and resolved.
<b>Conclusion</b>	The validation team is of the opinion that the project participant has seriously considered CDM in their decision to go ahead with the implementation of the project activity. This is in line with paragraph 41 of VVS for PAs version 02.0. This is found to be appropriate and it is accepted.

### D.2. Identification of project type

<b>Means of validation</b>	<p>The installed capacity of the project is 10 MW that is below the threshold capacity under small-scale project activity (15MW). Thus, the project is correctly identified as small-scale project activity.</p> <p>The PDD has been completed using the latest and valid version of PDD form (version 11.0) /35/ and following instructions therein.</p> <p><b>Assessment of debundling:</b></p> <p>The project activity is a small-scale project and not a de-bundled component of a large-scale project activity. In line with the guidelines as outlined under Tool 20: Assessment of debundling for small-scale project activities, v04.0, the assessment team has confirmed that there is no registered small scale CDM project activity or a request for registration made by Krishna Wind Farm Developers Pvt. Ltd. (project participant) in the same project category and technology/measure or one that has been registered in the previous two years; whose project boundary is within 1 kilometers of the project boundary of the proposed small scale project activity at the nearby point.</p> <p>The assessment team has checked the project search interface available at official website of UNFCCC, local expertise and interviewed the project stakeholders &amp; confirmed that there is no registered solar power project or project under request for registration in Maharashtra, India, where Krishna Wind Farm Developers Pvt. Ltd. has participated as project participant and nor project is registered in last two</p>
----------------------------	--

	years. Based on the above discussion, the assessment team confirm that the proposed project activity is not a de-bundled component of a larger project activity.
<b>Findings</b>	No finding was raised.
<b>Conclusion</b>	The validation team is of the opinion that, in line CDM modalities and procedure, the project type is correctly identified as small-scale project activity which is outlined in paragraph 34 of the project standard for project activities version 02.0. It is also confirmed that the valid version of the PDD form has been used to complete the PDD following instructions therein.

### D.3. Description of project activity

<b>Means of validation</b>	<p>The proposed project activity involves the installation of 10 MW Solar Photovoltaic Project in the state of Maharashtra.</p> <p>This proposed solar power project will reduce the GHG emissions generated by the current generation energy mix in India's Power Grid, which is dominated by fossil fuel-based grid connected power plants. The project participant has signed the purchase agreement (PPA) with Solar Energy Corporation of India Limited (SECI) /31/, which is a government entity responsible for implementation of grid connected solar PV project under the scheme "National Solar Mission". The National Solar Mission is an initiative of the Government of India and State Governments to promote solar power. The mission is one of the several policies of the National Action Plan on Climate Change. Electricity generated by the project activity is being purchased by SECI, which is eventually sold to state DISCOM /31/.</p> <p>The proposed project consists of setting-up 37,450 solar PV panels with an installed capacity of 10 MW to produce electricity, which will be supplied to the Solar Energy Corporation of India Ltd. (SECI). The project activity involves the solar modules of 320Wp and 325Wp Canadian Solar make and 8 no. of inverter of Hitachi make with rating capacity 1250 kW, the same is verified through the on-site visit and connectivity report issued by state utility /40/. The modules are of high-efficiency, poly- crystalline silicon solar cells with high transmission and tempered glass, which results in module efficiency of up to 16.46% (for 320Wp) and 16.72% (for 325Wp).</p> <p>The technical specification of the project activity equipment's has been checked during the site visit and are found to be consistent with the EPC contract signed /26/ and the Energy Production Assessment report prepared by DNV GL, for the project activity/08/. The project activity is located in Ahmednagar district, in the state of Maharashtra, in India. The location of the project activity mentioned in the PDD is checked through the Google Map (<a href="https://www.google.co.in/maps">https://www.google.co.in/maps</a>), found consistent and it is accepted.</p> <p>The project description in the section A of the PDD is found to be complete and transparent and the salient features as validated are discussed below:</p> <ul style="list-style-type: none"> <li>• The purpose of the proposed project activity is to generate electricity using solar energy, which is a renewable form of energy and supply the generated electricity to the SECI and ultimately sold to state utility (DISCOM). In the absence of the project activity, the equivalent quantity of power would have been generated by fossil fuel dominated grid connected power plants, resulting in GHG emissions.</li> <li>• The title of the project activity is "10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd." /36/.</li> <li>• Technical specifications of the equipment's i.e., solar PV modules, inverters and transformers involved in the project activity as reported under section A.3 of the PDD are verified through the Energy Production Assessment report /08/, actual EPC contract/26/ and the connectivity report/40/ issued by the state utility and found to be consistent.</li> <li>• The annual average gross energy generation of the project is estimated to be 18,775 MWh/year based on the PLF of 21.43%. The PLF has been verified by the assessment team against the independent third-party report prepared by DNV GL /08/. It is confirmed that the PLF considered by PP is reasonable and in line with the requirement of CDM EB "guideline for the reporting and validation of plant load factors" /22/.</li> <li>• The project activity will result in an annual average emission reduction of</li> </ul>
----------------------------	--

	<p>18,123 tCO<sub>2</sub> equivalent.</p> <ul style="list-style-type: none"> <li>The project participant has chosen to have a renewable Crediting Period of 7 years</li> </ul> <p>It is found that the project description provided in section A in the PDD/01/ gives clear understanding of the nature of the project activity and its technical aspects, as it sufficiently covers all relevant elements of the project activity. Also, description of the project activity is found to be accurate and complete. It is found to be consistent with the details verified through the actual EPC contract, Energy Production Assessment Report, commissioning certificate and as verified physically during the site. This is found in line with paragraphs 50 of VVS for PAs version 02.0</p> <p>The final PDD/01/ has been found to be prepared in the latest available PDD form (CDM-PDD-FORM) version 11.0 and is found in accordance with the instructions for completing the project design document form as outlined in the template, thus it is acceptable.</p> <p>The technical lifetime of the project activity is mentioned as 25 years in section C.2 of the PDD. This is checked and verified from the Energy Production Assessment report /08/ (which covers design lifetime of the project activity). This is found to be appropriate and it is accepted.</p> <p>The project activity neither received any public funding from Annex 1 parties nor diverted ODA for project finance as mentioned in section A.5 of the PDD/01/. The PP has provided declaration for no ODA/25/. This is found to be appropriate and it is accepted.</p> <p>The project activity entitled "10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd." is a unique title.</p> <p>This has been checked and verified from the UNFCCC/36/. The PDD is providing all required information on the purpose of the project activity, the type of technology used and the contribution of the project activity to the sustainable development which has been found to be acceptable.</p>
<b>Findings</b>	CAR #3 and CAR #5 was raised and resolved.
<b>Conclusion</b>	The validation team conducted document review and interviewed the project participant and site personnel for this project activity. In view of the same the assessment team is able to confirm that the PDD contains a clear description of the project activity that provides a clear understanding of the precise nature of the project activity. This description is also found to be accurate and complete. The PDD satisfies the requirements of clause 7.4 Of VVS for project activity version 02.0/32/.

#### D.4. Application and selection of methodologies and standardized baselines

##### D.4.1. Application of methodologies and standardized baselines

<b>Means of validation</b>	<p>The project activity has applied CDM approved methodology AMS I.D version 18.0., "Grid-connected renewable electricity generation /20/. The applicability of the methodology is justified through the following paragraphs of the methodology; As per the AMS I.D, version 18.0,</p> <p><b>Criteria-1.</b> This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:  (a) Supplying electricity to a national or a regional grid; or  (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p> <p><b>Validation assessment:</b> Project activity is Greenfield solar PV power project, supplying electricity to national grid. This is verified through the PPA /31/, commissioning certificate/30/. Thus, the criterion (a) is fulfilled by the proposed project activity.</p> <p><b>Criteria-2:</b> As per Appendix table 1 of AMS.I D version 18 is applicable for following project types:  a. Project supplies electricity to a national/regional grid</p>
----------------------------	--



- b. Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)

Validation assessment:

The electricity generated by the project being supplied to national grid. This is verified thorough the PPA /31/.

Thus, the criterion (a) is applicable and (b) is not applicable for the proposed project activity.

**Criteria-3:**

This methodology is applicable to project activities that

- (a) install a Greenfield plant);
- (b) involve a capacity addition in (an) existing plant(s);
- (c) involve a retrofit of (an) existing plant(s); or
- (d) Involve a rehabilitation of (an) existing plants(s)/unit(s); or
- (e) Involve a replacement of (an) existing plant (s).

Validation assessment:

Project activity Project activity is Greenfield solar PV power project. This is confirmed through the EPC contract /26/ and commissioning certificate/30/.

Thus, the criterion (a) is applicable and followed for the proposed project activity.

**Criteria-4:**

Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:

- The project activity is implemented in an existing reservoir with no change in the volume of reservoir;
- The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project emissions section, is greater than 4 W/m<sup>2</sup>;
- The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.

Validation assessment:

Project activity is Greenfield solar PV power project/30/. Criteria are not relevant to the project activity, hence not applicable for the proposed project activity.

**Criteria-5:**

If the new unit has both; renewable and non- renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.

Validation assessment:

This project activity includes only the renewable generation component and capacity is 10 MW /31/. Hence the criteria are not relevant to the project activity.

**Criteria-6:**

Combined heat and power (co-generation) systems are not eligible under this category.

Validation assessment:

Project activity is Greenfield solar PV power project. The project activity is not a co-generation system; hence criterion is not relevant to the project activity.

**Criteria-7:**

In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.

Validation assessment:

Project activity doesn't involve capacity addition /30/, hence criterion is not relevant to the project activity

	<p><b>Criteria-8:</b> In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement unit shall not exceed the limit of 15 MW. <u>Validation assessment:</u> Project activity doesn't involve retrofit, rehabilitation or replacement; hence this condition is not applicable to the project activity.</p> <p><b>Criteria-9:</b> In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energy production with or without electricity" shall be explored. <u>Validation assessment:</u> Project activity is solar PV power project. This condition is not applicable to the project activity.</p> <p><b>Criteria-10:</b> In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply. <u>Validation assessment:</u> Project activity is solar PV power project. This condition is not applicable to the project activity.</p> <p>Thus, it can be concluded that the applied methodology AMS I.D, Version 18.0 is applicable to the project activity.</p> <p>Further, the applied methodology refers to latest available versions of the following tools;</p> <ol style="list-style-type: none"> <li>1. Tool to calculate the emission factor for an electricity system</li> </ol> <p>The PDD/01/ refers and correctly applies the latest version of tool to calculate the emission factor for an electricity system, version 07.0 /18/. Also, the PP has referred the CEA Baseline CO<sub>2</sub> Emission Database version 12 dated May 2017 which was the latest available database at the time of PDD submission for validation of the project activity. The location of project activity is in the state of Maharashtra, in India. As per CEA Baseline CO<sub>2</sub> Emission Database/10/, the state of Maharashtra comes under the Indian grid, the geographic and system boundaries of which are clearly identified; information on the characteristics of the grid is available. Thus, the tool is applicable for the project activity.</p> <ol style="list-style-type: none"> <li>2. Tool for the demonstration and assessment of additionality Tool 21: Demonstration of additionality of small-scale project activities, version 13.1 /19/ has been used by the PP. Since the project activity falls under the positive list of technologies as described under Methodological Tool 32: Positive lists of technologies published by UNFCCC/39/. Hence project activity is deemed auto additional and this tool is not applied for demonstration of additionally.</li> <li>3. Tool to calculate project or leakage CO<sub>2</sub> emissions from fossil fuel combustion Since there is no fossil fuel combustion involved in the project site or in the project boundary, this tool is not applicable to the proposed project activity and not used/applied by the project participant.</li> </ol>
<b>Findings</b>	CAR #4 was raised and resolved.
<b>Conclusion</b>	<p>Applus+ Certification has concluded that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for registration.</p> <p>It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology.</p>

**D.4.2. Deviation from methodology and/or methodological tool**

<b>Means of validation</b>	Not applicable
<b>Findings</b>	Not applicable
<b>Conclusion</b>	Not applicable

**D.4.3. Clarification on applicability of methodology, tool and/or standardized baseline**

<b>Means of validation</b>	Not applicable
<b>Findings</b>	Not applicable
<b>Conclusion</b>	Not applicable

**D.4.4. Project boundary, sources and GHGs**

<b>Means of validation</b>	<p>The project boundary is given by the applied methodology, AMS-I. D, version 18.0: “The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to”.</p> <p>The project activity will supply electricity to the National Grid. The project boundary includes the WTGs, the metering points and the grid, which has been illustrated in the Section B.3 of the PDD and gives clear understanding of the project boundary; thus, it is acceptable. The same has been confirmed during the site visit and is found to be appropriate.</p> <p>The consideration, by the PP, of only CO<sub>2</sub> gas for the baseline emissions is conservative and also in line with the methodology. The exclusion of CH<sub>4</sub> &amp; N<sub>2</sub>O in the baseline scenario is appropriate. The project activity involves the generation of electricity using solar energy. Hence, there are no project emissions associated with this project activity. Hence, the exclusion of CO<sub>2</sub>, CH<sub>4</sub> &amp; N<sub>2</sub>O in the project scenario are appropriate. There are no other sources of project emissions. Hence, the project participant has considered the project emissions as zero for project activity; this is in line with the methodology.</p> <p>The project boundary in section B.3 of the PDD properly explains the physical description of the project activity. Also, it is found that all the components and facilities to mitigate GHG gases are included in the project boundary.</p>
<b>Findings</b>	No non-conformability was observed during assessment for project description. Therefore, no finding was raised.
<b>Conclusion</b>	The validation team is of the opinion that the project boundary has been correctly identified in the PDD in line with paragraphs 69 to 74 of VVS for PAs, version 02.0. Furthermore, all the emission sources and gases have been included in the project boundary and the description in the PDD is accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

**D.4.5. Baseline scenario**

<b>Means of validation</b>	<p>As the project activity involves the installation of a newly built and grid-connected renewable power plant that exports the generated electricity to the Indian grid system in India, hence, according to the methodology AMS I.D Version 18.0, the baseline scenario is determined properly as:</p> <p><i>“The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.”.</i></p> <p>The baseline methodology that is applied prescribes the baseline scenario, and the same has been opted in this project, therefore, no further analysis on baseline is required.</p> <p>The relevant National Acts and regulations/27/ pertaining to generation of energy in India are:</p> <ul style="list-style-type: none"> <li>• Electricity Act 2003</li> <li>• National Electricity Policy 2005</li> <li>• Tariff Policy 2006</li> </ul> <p>The above-mentioned National Acts and regulations pertaining to generation of energy in India does not influence the choice of fuel used for power generation. There is no legal requirement on the choice of a particular technology for power</p>
----------------------------	--

	<p>generation.</p> <p>The latest available version for “Tool to calculate the emission factor for an electricity system” is version 07.0 /18/ and the PP has correctly referred to the same in the section B.6.1 of the final PDD for determining baseline grid emission factor and it is found to be correct.</p> <p>The discussion on baseline is comprehensive in the PDD section B.6.1 and it is in line with the monitoring methodology AMS I.D version 18.0. Also, the identified baseline for the project activity is the most likely scenario of what would have occurred in the absence of the project activity and is confirmed by TA expert in the team; thus, it is accepted. The project participant has included all sources and references used for baseline determination for the project activity in the PDD/01/ and the identified baseline is justified appropriately by the project participant. The Baseline scenario and baseline emission calculations are found as per AMS I.D version 18.0/20/. The combined margin approach is the ex-ante approach as per tool to calculate the emission factor for an electricity system.</p>
<b>Findings</b>	No non-conformability was observed during assessment regarding identification of baseline scenario. Therefore, no finding was raised.
<b>Conclusion</b>	<p>In accordance with the requirements of paragraph 83 of the VVS for PAs version 02.0, the validation team confirm that:</p> <ul style="list-style-type: none"> <li>(a) All the assumptions and data used by the project participants are listed in the PDD including their references and sources;</li> <li>(b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;</li> <li>(c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;</li> <li>(d) Relevant national and/or sectoral policies, regulations and circumstances are considered and listed in the PDD;</li> <li>(e) The methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.</li> </ul>

#### D.4.6. Demonstration of additionality

<b>Means of validation</b>	<p>The start date of the project activity is 29/03/2017, which is the date when the project participant has signed EPC contract involving the expenses for the construction of the project activity/26/.</p> <p>Since the start date of project is after 02/08/2008, hence in line with the paragraph 41 of the CDM VVS for project activities, version 02.0, the PP had informed host Party DNA and UNFCCC secretariat in writing of their intention to seek CDM status on 05/05/2017 i.e., within 180 days of the start date of the project activity (please refer section D.1 of this report for further details).</p> <p>In accordance with the Methodological Tool “Demonstration of additionality of small-scale project activities”, version-13.1, PP shall provide an explanation to show that the project activity would not have occurred due to at least one of the following barriers:</p> <ul style="list-style-type: none"> <li>i. Investment barrier:</li> <li>ii. Technological barrier:</li> <li>iii. Barrier due to prevailing practice</li> <li>iv. Other barriers</li> </ul> <p>In accordance with the paragraph 10 of the applied Tool, “project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the barriers (as mentioned above).</p> <p>However as per the paragraph 11 of the Tool, documentation of barriers, as per paragraph 10 above, is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g., installed capacity up to 15 MW).</p> <p>As per the Tool 32: “Positive lists of technologies” version 02.0, the following grid-connected renewable electricity generation technologies are included in the positive list:</p> <ul style="list-style-type: none"> <li>(a) Solar photovoltaic technologies;</li> <li>(b) Solar thermal electricity generation including concentrating solar Power</li> </ul>
----------------------------	--

	<p>(CSP);</p> <p>(c) Off-shore wind technologies;</p> <p>(d) Marine wave technologies;</p> <p>(e) Marine tidal technologies;</p> <p>(f) Building-integrated wind turbines or household rooftop wind turbines of a size up to 100 kW;</p> <p>(g) Biomass internal gasification combined cycle (BIGCC).</p> <p>Since the project activity is the installation of a new small scale solar photovoltaic power plant with aggregated installed capacity 10 MW, which is below the threshold of 15 MW and would contribute in reducing GHG emissions below that would have occurred in the absence of the instant project activity, therefore the assessment team is able to confirm that the project activity is automatically additional and does not require any further demonstration of barriers.</p>
<b>Findings</b>	No non-conformability was observed during assessment regarding the additionality. Therefore, no finding was raised.
<b>Conclusion</b>	<p>The assessment team confirms that the information mentioned in the PDD is duly supported by evidences quoted therein. The assessment team has described all steps taken, and sources of information used to cross-check the information contained in the PDD and determined that the evidence assessed is credible, where appropriate.</p> <p>The assessment team confirms;</p> <ol style="list-style-type: none"> <li>The validated start date of the project activity is appropriate and in accordance with the Glossary of CDM terms, version 10;</li> <li>The proposed CDM project activity complies with the applicable requirements CDM-VAL-FORM Version 04.0 Page 18 of 35 related to the prior consideration of the CDM (notification to host Party DNA and UNFCCC were given within the stipulated time frame or earlier).</li> <li>The proposed project is activity is automatically additional in line with the paragraph 11 of the "Demonstration of additionality of small-scale project activities, version 13.1.0".</li> <li>The validation team confirms that proposed project activity is additional in accordance with the requirement stipulated in paragraph 86-90 of CDM VVS for project activities, V02.0.</li> </ol>

#### D.4.7. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>The proposed project activity has applied baseline methodology AMS I.D version 18.0, "Grid connected renewable electricity generation".</p> <p>Accordance with the paragraph 43 of the applied methodology emission reductions is calculated as follows:</p> $ER_y = BE_y - PE_y - LE_y$ <p>Where,</p> <p><math>ER_y</math> = Emission reductions in year <math>y</math> (tCO<sub>2</sub>e/yr)</p> <p><math>BE_y</math> = Baseline emissions in year <math>y</math> (tCO<sub>2</sub>/yr)</p> <p><math>PE_y</math> = Project emissions in year <math>y</math> (tCO<sub>2</sub>e/yr)</p> <p><math>LE_y</math> = Leakage emissions in year <math>y</math> (tCO<sub>2</sub>e/yr)</p> <p><b>Baseline emissions:</b></p> <p>As per the paragraph 22 of the applied methodology: Baseline emissions include only CO<sub>2</sub> emissions from electricity generation in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid, CM, y}$ <p>where,</p> <p><math>BE_y</math> = Baseline emissions in year <math>y</math> (tCO<sub>2</sub>)</p>
----------------------------	--

$EG_{PJ,y}$  = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year  $y$  (MWh)  
 $EF_{grid, CM, y}$  = Combined margin CO<sub>2</sub> emission factor for grid connected power generation in year  $y$  calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO<sub>2</sub>/MWh)

**Calculation of  $EG_{PJ,y}$ :**

As per the paragraph 25, the calculation of  $EG_{PJ,y}$  is different for Greenfield plants, capacity additions, retrofits, rehabilitations, and replacements.

Since the proposed project activity is Greenfield plant, hence as per the paragraph 26 of AMS I.D, Version 18.0,

$$EG_{PJ,y} = EG_{PJ, facility,y}$$

Where,

$EG_{PJ,y}$  = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year  $y$  (MWh/yr)

$EG_{PJ, facility, y}$  = Quantity of net electricity generation supplied by the project plant/unit to the grid in year  $y$  (MWh/yr)

**Determination of  $EG_{PJ, facility,y}$ :**

Ex-ante determination of  $EG_{PJ, facility,y}$  is done, based on the installed capacity 10 MW and PLF as 21.43% as per Energy Production Assessment report. The amount of electricity delivered to grid is estimated (average) to be 18,775 MWh/year.

For ex-post, this parameter (of  $EG_{PJ, facility,y}$ ) is being calculated as difference of electricity exported to the grid by the project activity and electricity imported from the grid by the project activity and those (export & import) measured by energy meters of accuracy class 0.2s located at 132 kV /33 kV Kharda substation.

The net electricity supplied from the project activity to the grid will be cross-checked with the invoices raised by the project participant to SECI.

Finally, the baseline emissions are calculated as follows:

$$BE_y = EG_{PJ,y} \times EF_{grid, CM, y}$$

$$BE_y = 18,775 \text{ MWh/year} \times 0.9653 \text{ tCO}_2/\text{MWh}$$

$$BE_y = 18,123 \text{ tCO}_2/\text{year (round down value)}$$

**Calculation of emission factors:**

The calculation for the operating margin and combined margin for the Indian Grid is readily available and published by the Central Electricity Authority, Government of India/10/. The CEA power sector data is referred by all CDM project in India in the ER calculation and it is yearly updated with recent data. The project activity has referred the CEA Baseline Carbon Dioxide Emission Database is version 12/10/ dated May 2017, which was the latest version available at the time of publication of the PDD.

The PP has used the simple operating margin calculation. The simple operating margin is calculated as an average of the latest available three years (at the time of PDD submission for webhosting of the project activity) i.e., 2013-14, 2014-15 and 2015-16. The value for weighted average operating margin has been validated and used as 0.9843 tCO<sub>2</sub>/MWh.

The Build margin for the National grid is calculated ex-ante based on the average emission intensity of 20% most recent capacity additions in the grid based on the net generation for the year 2015-2016 considered as 0.9083 tCO<sub>2</sub>/MWh.

The weighted average combined margin has been calculated by the PP, considering the 75% weighted for operating margin and 25% for build margin; this is in accordance with the tool. The weighted average combined margin emission factor for the project activity comes to 0.9653 tCO<sub>2</sub>/MWh.

The PP has provided the calculation for the same in the ER calculation sheet and it was validated by the assessment team. The baseline emission factor for the electricity system has been calculated on ex-ante basis and will remain fixed for the

	<p>entire project crediting period.</p> <p><b>Calculation of project emissions:</b>  As per the paragraph 39 of the applied methodology, For most renewable energy project activities, <math>PE_y = 0</math>. However, for the following categories of project activities, project emissions have to be considered following the procedure described in the most recent version of "ACM0002: Grid-connected electricity generation from renewable sources":</p> <ul style="list-style-type: none"> <li>(a) Emissions related to the operation of geothermal power plants (e.g., no condensable gases, electricity/fossil fuel consumption);</li> <li>(b) Emissions from water reservoirs of hydro power plants.</li> </ul> <p>Since the project activity is a solar PV power project, hence the project emissions are not applicable to the project activity. Hence, <math>PE_y = 0</math></p> <p><b>Calculation of leakage emissions:</b>  As per the paragraph 42 of the applied methodology, "General guidance on leakage in biomass project activities shall be followed to quantify leakages pertaining to the use of biomass residues", however the project activity involves solar energy-based power generation, therefore, <math>LE_y = 0</math>.</p>
<b>Findings</b>	No non-conformability was observed during assessment regarding estimation of emission reductions. Therefore, no finding was raised
<b>Conclusion</b>	<p>In line with the paragraph 113 of VVS for PAs version 02.0, the validation team confirms that the project activity complies with the specified requirements of algorithms and/or formulae used to determine emission reductions and discussed above. The assessment team confirms that</p> <ol style="list-style-type: none"> <li>1. All assumptions and data used by the project participants are listed in the PDD, including their references and sources;</li> <li>2. All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;</li> <li>3. All values used in the PDD are considered reasonable in the context of the proposed project activity;</li> <li>4. The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, leakage emissions, baseline emissions and emission reductions;</li> <li>5. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.</li> </ol>

#### D.4.8. Monitoring plan

<b>Means of validation</b>	<p>The present CDM project activity uses monitoring methodology AMS I.D Version 18.0, "Grid connected renewable electricity generation".</p> <p>The monitoring plan provide procedures for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period.</p> <p>The monitoring plan of final PDD includes the parameter "Quantity of net electricity supplied to the grid by solar plant" (<math>EG_{PJ, facility, y}</math>). This parameter will be being calculated on monthly basis as difference of electricity exported to the grid and electricity imported from the grid by the project and those are being measured by energy meters of accuracy class 0.2s located at 132kV/33 kV Kharda substation/40/. The export and import parameter are measured continuously and at least monthly recording. This is in line with methodology and is accepted.</p> <p>Monthly values of <math>EG_{PJ, facility, y}</math> obtained directly from the joint meter reading issued by Maharashtra State Electricity Distribution Company Limited (MSEDCL). The invoicing will be done against electricity supplied by the project plant to the Solar Energy Corporation of India Limited (SECI)/31/. The measurement results shall be cross checked with records of invoices and it is in line with applied methodology. Thus, this parameter is considered in emission reduction calculations.</p> <p>During the site visit the assessment team has physically verified the monitoring equipment's and observed that there are 3 energy meters (main, check and stand-by</p>
----------------------------	---

	<p>meter), are installed at site for monitoring of parameter EG<sub>PJ, facility, y</sub> .</p> <p>As verified through the PPA /31/, the meters are under control of state utility (MSEDCL) and are sealed in presence of both the state utility official &amp; representative of PP.</p> <p>Joint Meter Reading is being taken jointly by the officials of state utility and project participant's representative on monthly basis and accordingly JMR Report is being prepared/31/.</p> <p>The monitoring methodology applies consistently the choice of the option selected for monitoring of baseline emissions. The monitoring plan provide procedures for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period.</p> <p>The PDD has been reviewed to check that the procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are mention in the PDD. The monitoring plan completely describes all measures to be implemented for monitoring all parameters required. The monitoring plan described the positioning of the equipment. Calibration frequency for energy meters is once in 5 years. Also, CEA Notification No. 502/70/CEA/DP&amp;D dated 17/03/2006/24/ which is considered as national standard mentions that <i>"All interface meters shall be tested at least once in five years."</i> Hence calibration frequency of once in 5 years considered for the project activity is found to be appropriate.</p> <p>The project participant has the ability to implement the monitoring plan. This is checked through discussion with consultant, the project participant representative and site personnel, found to be appropriate.</p>
<b>Findings</b>	CAR #6 was raised and resolved.
<b>Conclusion</b>	<p>In accordance with paragraph 117-119 of VVS for PAs version 02.0, the assessment team confirms that:</p> <ol style="list-style-type: none"> <li>1. The monitoring plan as described in section B.7 of the PDD takes into account all the relevant parameters prescribed in the applied monitoring methodology.</li> <li>2. The monitoring plan was assessed by a two-way approach: <ul style="list-style-type: none"> <li>• By checking the Compliance of the monitoring plan with the applied approved methodology and</li> <li>• By assessing the feasibility of implementation of the monitoring plan as described in the PDD through on-site observation of the project activity and the monitoring system in place.</li> </ul> </li> <li>3. The monitoring plan also considers sufficient details about the parameters being monitored and takes enough measures for the correct estimation of the same. Therefore, the monitoring plan has complied with the requirements in the approved methodology.</li> </ol>

#### D.5. Start date, crediting period type and duration

<b>Means of validation</b>	<p>The start date of the project activity is 29/03/2017 and the operation lifetime is 25 years as described in the PDD.</p> <p>As per 'Glossary of CDM terms (Version 10)', "earliest real action for this project activity was taken on 29/03/2017 when the project participant has entered into the EPC contract, involving the expenses for the construction of the solar PV plant. Hence, this date has been treated as the start date of the project activity.</p> <p>Operational lifetime of the project is verified through the Energy production assessment report /08/ and further checked with the EPC contract/26/, found to be consistent.</p> <p>The crediting period chosen is 7 years renewable crediting period and start date of crediting period as 25/12/2020, or the date of submission of complete request for registration by the DOE whichever is later.</p>
<b>Findings</b>	CAR #7 was raised and resolved.
<b>Conclusion</b>	<p>The assessment team confirms that the start date of the proposed CDM project activity has been determined in accordance with the definition of start date in the "Glossary: CDM terms".</p> <p>Project activity comply the requirements of para 85-91 of CDM PS for PAs Version 02.0.</p>



**D.6. Environmental impacts**

<b>Means of validation</b>	The project participant has mentioned in the PDD that the present project activity does not require EIA to be carried out because as per the schedule 1 of Ministry of Environment and Forest notification dated 14/09/2006 <a href="http://envfor.nic.in/legis/eia/so1533.pdf">http://envfor.nic.in/legis/eia/so1533.pdf</a> and further notification number 3067 from MoEF dated 01/12/2009 (Ref: <a href="http://moef.nic.in/downloads/rules-and-regulations/3067.pdf">http://moef.nic.in/downloads/rules-and-regulations/3067.pdf</a> ), 39 activities are required to undertake environmental impact assessment studies. The proposed project activity does not fall under this category and hence not required EIA to be done.
<b>Findings</b>	No non-conformability was observed during assessment. Therefore, no finding was raised.
<b>Conclusion</b>	The assessment team confirm that the project participants have not undertaken an environmental impact analysis; as the Host Party does not require that for a solar power generation facility. The project activity is expected to have positive impacts and no significant adverse environmental impacts are foreseen. Since, the project activity is an electricity generation from renewable source (i.e., solar energy) therefore no negative impact is envisaged would not lead to any significant environmental impacts including trans-boundary impact. There is no mandatory legal requirement for carrying out an environmental impact assessment in the host country. The assessment team is of the opinion that the project complies with environmental regulations in India.

**D.7. Local stakeholder consultation**

<b>Means of validation</b>	<p>The local stakeholder consultation process has been described in detail, by the PP, in section E of the PDD.</p> <p>Local stakeholder consultation was carried out before publication of PDD at UNFCCC website (from 03/08/2017 to 01/09/2017).</p> <p>The stakeholders identified by the project participant were local villagers who are the major population of the particular area, local communities and gram panchayat (Village head), local vendors, project proponent representatives, equipment suppliers and other people involved in the project/14/. The validation team verified the list of participants who attended the stakeholder meeting and confirms the stakeholders identified are relevant/16/. The assessment team also verified the minutes of meeting to note that no negative comments were received and the same was cross checked with the information obtained during follow up interviews with the stakeholders/16/.</p> <p>Based on the conversations of the assessment team during the on-site visit with site personnel /consultant and as per the definition of 'stakeholder' in the latest version of Glossary of CDM terms, the identification of stakeholders for consultation was found to be appropriate. Thus, the assessment team is of the opinion that the relevant stakeholders have been consulted appropriately and adequately.</p> <p>The PP has conducted the stakeholder consultation meeting for the project activity is conducted on 24/03/2017 in the site office located at Mohari village, Jamkhed taluk, Ahmednagar district of Maharashtra/15/. Identified stakeholders were invited to the Local Stakeholder Consultation Meeting through public notice and personal invitations on 15/03/2017 /14/.</p> <p>Also, the PP submitted minutes of meeting of Local Stakeholder Consultation Meeting conducted on 24/03/2017 at site office located at Mohari village in Ahmednagar District and attendance sheet of local stakeholder attended the meeting/16/.</p> <p>This is further cross-validated from local stakeholder consultation carried out for the project activity during the on-site visit. During the on-site visit, the assessment team has interacted with local villagers and confirmed that the process of stakeholder consultation was carried out as described in the PDD. This was found to be consistent with the invitation process mentioned in the PDD. Overall, there was agreement among the stakeholders that the proposed project activity would lead to the overall development of the area, mainly by generating employment opportunities and improving the infrastructure leading to an improved life for the villagers.</p>
<b>Findings</b>	No non-conformability was observed during assessment regarding the stakeholder consultation. Therefore, no finding was raised.

<b>Conclusion</b>	<p>The validation team confirms that the summary of stakeholders' comments reported in PDD is complete.</p> <p>Stakeholder Consultation Report submitted by the PP is reviewed by the assessment team and confirmed that the queries raised by the local stakeholders have been answered satisfactorily.</p> <p>In view of the verification of all relevant documents of local stakeholder consultation meeting and interactions done with the stakeholders available during the site visit. It concludes that the project participant conducted the stakeholders' consultation process in transparent and unbiased manner.</p>
-------------------	---

#### D.8. Sustainable development co-benefits

<b>Means of validation</b>	Not applicable
<b>Findings</b>	Not applicable
<b>Conclusion</b>	Not applicable

#### D.9. Approval

<b>Means of validation</b>	<p>The project is a unilateral project and hence the host country (India) is the only party involved in the project activity.</p> <p>India (Host Country) fulfils the requirements to participate in the CDM and ratified the Kyoto protocol on 26/08/2002 /04/ and established a DNA as National CDM Authority (NCDMA) under Ministry of Environment, Forest and Climate Change, Govt. of India /03/ as per the participating requirements for CDM under the Kyoto Protocol.</p> <p>The project participant is Krishna Wind Farm Developers Pvt. Ltd. from India, and is a private entity. The project participant is correctly listed in table under section A.4 of the PDD and information is consistent with the contact details provided in Appendix 1 of the PDD.</p> <p>The DNA of India issued a Letter of Approval on 15/04/2019, approving participation of M/s. Krishna Wind Farm Developers Pvt. Ltd. as a project participant and confirming that the project assists in achieving sustainable development in India/03/. The Approval is provided by the Indian DNA (The Ministry of Environment, Forest and Climate Change, Govt of India). Assessment team checked the HCA supplied by the project participant and also cross checked the same from the web site:  <a href="http://ncdmaindia.gov.in/PublicReportProjectDetail.aspx?pub=4ziuRvY03kw=">http://ncdmaindia.gov.in/PublicReportProjectDetail.aspx?pub=4ziuRvY03kw=</a> )</p> <p>The assessment team also confirmed that the LoA refers to the proposed CDM project activity and the title is in line with the title mentioned in the PDD. The letter of approval does not refer to any specific version of the validation report. By checking the original LoA document /03/, Applus+ Certification considers the LoA in accordance with paragraphs 140-144 of the CDM VVS for project activity version 2.0 /32/ and hence the assessment team has no doubt on the authenticity of the LoA for the project activity.</p>
<b>Findings</b>	CAR #1 was raised and closed.
<b>Conclusion</b>	<p>The assessment team confirm that:</p> <ul style="list-style-type: none"> <li>i. Host country (India) is a party to the Kyoto protocol;</li> <li>ii. The participation in the CDM project activity is voluntary;</li> <li>iii. The project under validation contributes to the sustainable development of India;</li> <li>iv. The project title as mentioned in the LoA is consistent with the PDD. LoA has been verified to be unconditional with respect to all the above confirmed aspects.</li> </ul> <p>The assessment team has confirmed that the LoA has met the requirements of paragraph 140-144 of the CDM VVS for project activity version 02.0.</p>

#### D.10. Authorization

<b>Means of validation</b>	<p>The Authorization is provided by the Indian DNA (The Ministry of Environment, Forest and Climate Change, Govt of India). The assessment team checked the LoA supplied by the project participant and also cross checked the same from the site <a href="https://ncdmaindia.gov.in/PublicReportProjectDetail.aspx?pub=6n8DJ1XRL7U=">https://ncdmaindia.gov.in/PublicReportProjectDetail.aspx?pub=6n8DJ1XRL7U=</a> ).</p> <p>The LoA confirms the authorization of Indian DNA which is the party to Kyoto</p>
----------------------------	--

	<p>protocol and confirms that project is vide by the guideline of CDM.</p> <p>The participant of the project activity is Krishna Wind Farm Developers Pvt. Ltd. with host country India. The information regarding to the project participant is listed in section A.4 of the PDD and are consistent with the contact details provided in Appendix 1 of the PDD.</p>
<b>Findings</b>	CAR #1 was raised and closed.
<b>Conclusion</b>	<p>The validation team confirms participation of Krishna Wind Farm Developers Pvt. Ltd. in the project activity has been approved by DNA of India, which is a Party to the Kyoto Protocol.</p> <p>The assessment team confirms that:</p> <p>The participation of project participants has been approved/ authorized by the DNA of host Party (India)</p> <p>The participation has been confirmed in the LoA itself, which contains the name of the PPs to which it is issued.</p> <p>The information is consistent within the project documentation viz., PDD, LoA and signed MoC. The validation of authorization has been done on the basis of paragraph 147-150 of CDM VVS for project activity version 02.0 and assessment team confirms that the proposed project activity meets the requirement of paragraph 151 of CDM VVS for project activity version 02.0.</p>

#### D.11. Modalities of communication

<b>Means of validation</b>	<p>PP has submitted duly signed Modalities of Communication (MoC) document dated 10/12/2020. The primary authorized signatory from Krishna Wind Farm Developers Pvt. Ltd. is Mr. Harshad Joshi and Mr. Dhawal Marghade is alternate authorized signatory as per the MoC. The personal identity of Mr. Harshad Joshi and Mr. Dhawal Marghade is checked from their respective Aadhar Card issued by Unique Identification Authority of India, Govt. of India /28/.</p> <p>The Corporate Identity of Mr. Harshad Joshi and Mr. Dhawal Marghade has been checked from the Written confirmation from the PP that submits to it the MoC statement that all corporate and personal details, including specimen signature are valid and accurate. The assessment team confirms that the signatory and contact details on the MoC are authorized and credible; the MoC is prepared using latest version of form (CDM-MOC-FORM) and meets the requirement of para 158-160 (a) of CDM VVS for project activities version 02.0.</p> <p>As indicated under section 2 of the MoC, along with the project participant, the entity "Infinite Environmental Solutions LLP" is also nominated as focal point (shared), with the authority to communicate on all the project related matters.</p> <p>The project participant's authorized signatories signing the MOC correspond to the Project participant's authorized signatories included in CDM-MOC-FORM, annex 1.</p>
<b>Findings</b>	CAR #2 was raised and resolved.
<b>Conclusion</b>	<p>The assessment team confirms that:</p> <p>a) The MoC is correctly filled and duly authorized using the latest MoC template</p> <p>b) The project participants' authorized signatories signing the F-CDM-MOC correspond to the project participants' authorized signatories included in MOC, annex 1.</p> <p>c) The MoC is directly received from the PP.</p> <p>d) The specimen signature, designation and name of the authorized personals are cross checked from the written confirmation from PP confirming the specimen signature, name and designation of authorized personnel.</p> <p>The modalities of communication statement are correctly filled and including the specimen signature of authorized signatory. The validation of MoC has been done on the basis of paragraph 153-157 of CDM VVS for project activity version 02.0 and validation team confirms that the proposed project activity meets the requirement of CDM VVS for project activity, version 02.0.</p>

#### D.12. Global stakeholder consultation

<b>Means of validation</b>	<p>Project document (PDD) was published on the UNFCCC website and invited comments by affected Parties, stakeholders, and non-governmental organizations during a 30-day period (from 03/08/2017 to 01/09/2017).</p> <p>Source:  <a href="https://cdm.unfccc.int/Projects/Validation/DB/NHL6U8GSSGYZIJAR564SH97QON_F9DT/view.html">https://cdm.unfccc.int/Projects/Validation/DB/NHL6U8GSSGYZIJAR564SH97QON_F9DT/view.html</a> </p>
----------------------------	---

<b>Findings</b>	No non-conformability was observed during assessment. Therefore, no finding was raised.
<b>Conclusion</b>	The assessment team confirm that no comments were received during the Global stakeholder consultation. Assessment team is of opinion that the changes in the PDD during the validation process do not require the publication of the revised PDD for global stakeholder consultation.

## SECTION E. Internal quality control

>> As a final step of validation, the final documentation including the validation report has to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the DOE's Technical Manager or the Deputy. In case one of these two persons is part of the assessment team, the approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the Request for registration is submitted to the CDM-EB along with the relevant documents.

## SECTION F. Validation opinion

>> Applus+ Certification has been contracted by M/s. Krishna Wind Farm Developers Pvt. Ltd. to perform a validation of the proposed CDM project activity entitled "10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd."

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism Validation and Verification Standard for project activities (Version 02.0) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design document and the subsequent follow-up interviews have provided us with sufficient evidence to determine the fulfilment of the stated criteria.

In our opinion, the project meets all relevant UNFCCC, CDM criteria and all relevant host country criteria. The project correctly applies methodology AMS I.D version 18.0. It is demonstrated that the project is not a likely baseline scenario.

By generating renewable energy from solar energy resources, the project results in reduction of CO<sub>2</sub> emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project are estimated to be 126,861 tCO<sub>2</sub> over a 7-year crediting period, averaging 18,123 tCO<sub>2</sub>e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the project's emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is confirmed that the project participants are able to implement the monitoring plan.

In conclusion, Applus+ Certification is of the opinion that the project activity "10 MW Solar Power Project by Krishna Wind Farm Developers Pvt. Ltd." in India, as described in the PDD, version 04 of 12/11/2020, meets all relevant UNFCCC requirements for the CDM and all relevant host party criteria and correctly applies the baseline and monitoring methodology "AMS I.D", "Grid connected renewable electricity generation", version 18.0.

The project will hence be recommended by Applus+ Certification for registration with the UNFCCC.

## Appendix 1. Abbreviations

Abbreviations	Full texts
ABT	Availability Based Tariff
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
EPC	Engineering, Procurement and Construction
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GHG	Greenhouse Gas(es)
GOI	Government of India
HCA	Host Country Approval
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
JMR	Joint Meter Reading
KWFDPL	Krishna Wind Farm Developers Pvt. Ltd.
LoA	Letter of Approval
MoC	Modalities of Communication
MP	Monitoring Plan
MR	Monitoring Report
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MWh	Megawatt hour
ODA	Official Development Assistance
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
PRC	Post Registration Changes
PS	Project Standard
SECI	Solar Energy Corporation of India Ltd.
TR	Technical Review
UID	Unique Identification number
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

## Appendix 2. Competence of team members and technical reviewers

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall be approved by the Applus+ Certification ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Qualification	Coverage of scope	Coverage of technical Area	Financial aspect	Host country Experience	Attendance to the On-Site Assessment
Vivek Kumar Ahirwar	Lead Auditor (LA)	Yes (1)	Yes (1.2)	Yes	Yes	Yes
Vivek Kumar Ahirwar	Technical Expert (TE)	Yes (1)	Yes (1.2)	Yes	Yes	Yes
Vivek Kumar Ahirwar	Financial expert (FE)	-	-	Yes	Yes	Yes
Ravi Kant Soni	Auditor in Training (AiT)	Yes (1)	Yes (1.2)	N/A	Yes	Yes
Simon Shen	Technical Reviewer (TR)	Yes (1)	Yes (1.2)	N/A	N/A	Yes

The curricula vitae of the DOE's team members are provided below:

**Vivek Kumar Ahirwar** is a BEE-Certified Energy Auditor by Govt of India with over eight years of relevant experience in energy efficiency, energy audit, thermal and electrical energy generation technology from renewable source and energy conservation in energy intensive industries, designated consumers and commercial buildings, implementation of energy conservation building codes, research, process and green building projects. He is a certified lead auditor for ISO 14001 EMS and 14064. He has experience under various categories of projects stating from renewable to waste to supercritical projects and WCD. He has successfully audited more than 100 GHG (CDM/VCS/GS) projects in different states across the India. He has done Mater in Technology (Energy Management) from a premier institute, School of Energy & Environmental Studies, DAVV, Indore (M.P.), India and Bachelor of Engineering (Mechanical Engineering) from Govt. Engineering college, Rewa, RGPV, India.

**Ravi Kant Soni** is a certified lead auditor for Lead Auditor ISO 14001:2004&Lead Auditor ISO 14064:2006 GHG Inventory and verification. He has more than 10 years of work experience across Climate Change, Environmental Management & Monitoring, Health & Safety Management, and Statutory Compliance. He was involved in more than 100 CDM validation and verifications activities and Gold Standard, VER projects as a team leader/technical reviewer / validator / verifier covering the sectoral scope 1 technical area 1.2. He has done Mater in Technology (Energy Management) from a premier institute, School of Energy & Environmental Studies, DAVV, Indore (M.P.), India and Bachelor of Engineering (Mechanical Engineering) from M.I.T.S Gwalior Jiwaji University Gwalior, India.

**Simon Shen** (Master Degree in Thermal Energy Engineering, Bachelor Degree in Environmental Engineering) is a Lead Auditor appointed by Applus+ Certification for the GHG project assessment. He is based in Shanghai. He has several years of work experience in environmental protection field. Before he joined Applus+ Certification, he had been worked for TÜV SÜD as a GHG Validator/Verifier and ISO 9001/14001 Lead Auditor for 5.5 years.



### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PP	Project Design Document	Version 01, dated 21/07/2017	PP
			Version 02, dated 17/02/2018	
			Version 03, dated 26/04/2019	
			Version 04, 12/11/2020	
2	PP	Emission reduction calculation spread sheet	Version 01, dated 17/02/2018	PP
			Version 02, dated 26/04/2019	
3	Government of India, Ministry of Environment, Forest and Climate Change	Host Country Letter of Approval	Ref : 13008/81/2017-CC Dated 15/04/2019	PP
4	UNFCCC	Status of ratification of the Kyoto Protocol.	<a href="https://unfccc.int/node/61082">https://unfccc.int/node/61082</a>	Other
7	PP	Modalities of Communication (MoC)	Dated 10/12/2020	PP
8	DNV GL	Energy Production Assessment Report prepared by DNV GL-Energy	Dated 16/11/2015	PP
9	Different suppliers	Technical specifications of Solar Module, Invertors & transformer's	-	PP
10	CEA	CO2 baseline database published (in May 2017) by Central Electricity Authority, Govt. Of India, available at <a href="http://www.cea.nic.in/tpeandce.html">http://www.cea.nic.in/tpeandce.html</a>	version 12	Other
11	PP	Board Resolution by KWFDPL	Dated 24/03/2017	PP
12	MITCON	Letter of Intent (LoI) to Ray Power Infra Pvt Ltd regarding commencement of Turnkey Solar EPC project 10MW in Maharashtra for KWFDPL	Dated 09/01/2016	PP
13	PP	Intimation letter to UNFCCC notifying their intention to seek CDM status for the project activity	Dated 05/05/2017	PP
14	PP	Stakeholder meeting notice and invitation letters	Dated 15/03/2017	PP
15	PP	Minutes of meeting of Local Stakeholder's consultation	Dated 24/03/2017	PP
16	PP	Attendance sheet of Local Stakeholder Consultation meeting	Dated 24/03/2017	PP
17	PP	Covering letter from PP to NCDMA	Dated 05/05/2017	PP
18	CDM EB	Tool to calculate the emission factor for an electricity system	Version 7.0	Other
19	CDM EB	Methodological Tool 21:	Version 13.1	Other

		Demonstration of additionality of small-scale project activities		
20	CDM EB	Small-scale Methodology AMS I.D "Grid connected renewable electricity generation"	Version 18.0	Other
21	CDM EB	Glossary of CDM Terms	Version 10.0 Dated 12/09/2019	Other
22	CDM EB	Guidelines for the reporting and validation of plant load factors	Version 01 annex 11 of EB 48 dated 17/07/2009	Other
23	MSEDCL	Approval for interconnection of project with the grid.	Dated 05/08/2017	PP
24	Central Electricity Authority	Notification for regulating the installation and operation of meters	<a href="http://www.cea.nic.in/reports/regulation/meter_reg.pdf">http://www.cea.nic.in/reports/regulation/meter_reg.pdf</a>	Other
25	PP	Declaration from KWFDPL for no ODA	Dated 17/02/2018	Other
26	PP	EPC contract signed by the PP with MITCON Consultancy & Engineering Services Ltd for the construction of the solar PV plant	Dated 29/03/2017	PP
27	GOI	Electricity Act 2003	Dated 26/05/2003	Other
		National Electricity Policy 2005	Dated 12/02/2005	
		Tariff Policy 2006	Dated 06/01/2006	
28	Unique Identification Authority of India, GOI	Aadhar Card of Mr. Harshad Joshi and Mr. Dhawal Marghade	Confidential	PP
29	UNFCCC	CDM-MoC-FORM	Version 3.0	Other
30	MSEDCL	Commissioning certificate of the project activity	Commissioned on 07/08/2017	PP
31	GOI	Power Purchase Agreement signed by KWFDPL with SECI	Dated 03/08/2016	PP
32	CDM EB	CDM VVS for PAs	Version 02.0	Other
33	CDM EB	CDM PS for PAs	Version 02.0	Other
34	CDM EB	CDM PCP for PAs	Version 02.0	Other
35	UNFCCC	PDD template form	Version 11.0	Other
36	UNFCCC	Project web page <a href="https://cdm.unfccc.int/Projects/Validation/DB/NHL6U8GSSGYZIJAR564SH97QONF9DT/view.html">https://cdm.unfccc.int/Projects/Validation/DB/NHL6U8GSSGYZIJAR564SH97QONF9DT/view.html</a>	-	Other
37	UNFCCC	Tool 20: Assessment of de-bundling for small-scale project activities	Version 04.0	Other
38	PP	Declaration for de-bundling	Dated 17/02/2018	PP
39	UNFCCC	Methodological Tool 32: Positive List of Technologies, version 02	Dated 28/11/2019	Other
40	MSEDCL	Connectivity report issued by state utility	Dated 10/08/2017	PP

## Appendix 4. Clarification requests, corrective action requests and forward action requests

**Table 1. CLs from this validation**

CL ID	01	Section no.	D.2	Date :05/10/2017
<b>Description of CL</b>				
<ol style="list-style-type: none"> <li>1. The PP is requested to provide declaration about there is no public funding from Annex I countries and Official Development Assistance (ODA) involve in project.</li> <li>2. The Project Participant is requested to provide deceleration for proposed CDM project activity is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs. Also, same need to confirm in A.1 of the PDD.</li> <li>3. The PP is requested to provide declaration about project is not a de-bundled component of a large project activity.</li> </ol>				
<b>Project participant response</b>				<b>Date : 17/02/2018</b>
<ol style="list-style-type: none"> <li>1. Submitting herewith duly signed copy of declaration about no public funding from Annex - I countries and Official Development Assistance (ODA) involve in project.</li> <li>2. Submitting herewith duly signed copy of deceleration for proposed CDM project activity is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs. It is now also mentioned in section A.1 of the revised PDD</li> <li>3. Submitting herewith duly signed copy of deceleration about project is not a de-bundled component of a large project activity.</li> </ol>				
<b>Documentation provided by project participant</b>				
<ol style="list-style-type: none"> <li>1. Copy of declaration about no public funding from Annex - I countries and Official Development Assistance (ODA) dated 17/02/2018</li> <li>2. Copy of declaration about PoA dated 17/02/2018</li> <li>3. Copy of declaration about de-bundling dated 17/02/2018</li> </ol>				
<b>DOE assessment</b>				<b>Date: 30/03/2018</b>
The PP has submitted the requested documents and found to be satisfactory. CL #1 is closed.				

CL ID	02	Section no.	D.3	Date :05/10/2017
<b>Description of CAR</b>				
1. The PP is requested to update the implementation status of project in section A.1, as during site visit it was observed that project was commissioned and in operation, also the PP is requested to provide supporting document to confirm the commission date of project activity.				
<b>Project participant response</b>				<b>Date : 17/02/2018</b>
The project activity is commissioned on August, 07, 2017. Implementation status of project is now updated in section A.1. Submitting herewith commissioning certificate for the reference.				
<b>Documentation provided by project participant</b>				
Commissioning certificate (No. SE/ANRC/TECH/HT/DYEE AMR/14410 dated 25/09/2017) issued by MSEDCL.				
<b>DOE assessment</b>				<b>Date: 30/03/2018</b>
The PP has updated the commissioning details under section A.1 of the revised PDD and found consistent with the commissioning certificate. CL #2 is closed.				

**Table 2. CARs from this validation**

CAR ID	01	Section no.	D.9	Date :05/10/2017
<b>Description of CAR</b>				

The PP is requested to submit a letter of approval provided by the DNA; National CDM Authority (NCDMA) Ministry of Environment & Forests for the Party involved in the proposed Project Activity. Also, the PP is requested to update section F of the PDD	
<b>Project participant response</b>	<b>Date:</b> 17/02/2018
The project activity has applied for Host Country Approval (HCA) from NCDMA i.e., MoEF, India. The HCA meeting is not yet scheduled by NCDMA. Once HCA issued by NCDMA, PP will submit the same to DoE.	
<b>Documentation provided by project participant</b>	
Not applicable	
<b>DOE assessment</b>	<b>Date:</b> 31/03/2018
HCA is awaited. CAR #1 is open	
<b>Project participant response</b>	<b>Date :</b> 26/04/2019
Submitting herewith Host Country Approval (HCA) issued by NCDMA i.e., MoEF, India (No. 13008/81/2017-CC dated 15/04/2019)	
<b>Documentation provided by project participant</b>	
Host Country Approval (HCA) issued by NCDMA i.e., MoEF, India (No. 13008/81/2017-CC dated 15/04/2019)	
<b>DOE assessment</b>	<b>Date:</b> 30/06/2019
PP has submitted HCA and it is found in accordance with paragraphs 140-144 of the CDM VVS for project activity version 2.0, the assessment team has no doubt on the authenticity of the HCA for the project activity and hence accepted. CAR #1 is closed.	

<b>CAR ID</b>	02	<b>Section no.</b>	D.11	<b>Date :</b> 05/10/2017
<b>Description of CAR</b>				
The PP is requested to submit Modalities of Communication (MoC) statement for the project activity.				
<b>Project participant response</b>				<b>Date :</b> 17/02/2018
Submitting herewith signed copy of MOC.				
<b>Documentation provided by project participant</b>				
Copy of MOC dated 17/02/2018.				
<b>DOE assessment</b>				<b>Date:</b> 31/03/2018
The PP has submitted the MoC, found to be satisfactory. Please submit the personal identity proof of the authorized signatories as mentioned in the MoC. CAR #2 is open				
<b>Project participant response</b>				<b>Date :</b> 26/04/2019
Filled & duly Signed MOC form along with identity proof of the authorized signatories is being submitted to DOE along with this submission. Please refer the same.				
<b>Documentation provided by project participant</b>				
MOC Identity proof of the authorized signatories				
<b>DOE assessment</b>				<b>Date:</b> 30/06/2019
MoC and identity proof of the persons who authorized to sign MoC is submitted by the PP, checked and found to be satisfactory. CAR #2 is closed.				

<b>CAR ID</b>	03	<b>Section no.</b>	D.4	<b>Date :</b> 05/10/2017
<b>Description of CAR</b>				
<ol style="list-style-type: none"> <li>1. Latest available version for the PDD form available in UNFCCC website. The PP is requested to use the latest available version.</li> <li>2. As per instruction for filling out PDD, the description for the physical/geographical location of the project activity should not exceed one page.</li> <li>3. Provide supporting document to confirm the geographic co-ordinates.</li> </ol>				
<b>Project participant response</b>				<b>Date :</b> 17/02/2018
<ol style="list-style-type: none"> <li>1. PDD is now updated as per latest available version (Version 10.1) at UNFCCC website.</li> <li>2. The description for the physical/geographical location of the project activity is now updated in revised PDD.</li> <li>3. Submitting herewith Energy Production Assessment Report by DNV – GL to confirm the geographic co-ordinates.</li> </ol>				
<b>Documentation provided by project participant</b>				

1. PDD version 02, dated 17/02/2018	
2. Energy Production Assessment Report by DNV – GL (Report no. 01, Rev.D.) dated 09/05/2017, please refer page no. 12	
<b>DOE assessment</b>	<b>Date: 30/03/2018</b>
1. The PP has referred the latest version of CDM-PDD-FORM for the updated PDD, found to be satisfactory, hence accepted.	
2. The PP has updated the description for the physical/geographical location of the project activity in the revised PDD, found to be satisfactory.	
3. The PP has submitted the Energy Production Assessment Report by DNV – GL indicating the geographic co-ordinates.	
CAR #3 is closed.	
<b>CAR #3 re-opened</b>	<b>Date: 18/07/2019</b>
<b>Description of CAR</b>	
PDD provided by the PP is using template version 10.1, which is not the latest one. Please clarify why latest version of CDM-PDD-FORM is not referred.	
<b>Project participant response</b>	<b>Date : 12/11/2020</b>
Latest version of CDM-PDD-FORM (Version 11.0) has been used and PDD has been revised.	
<b>Documentation provided by project participant</b>	
Revised PDD Version 04, dated 12/11/2020	
<b>DOE assessment</b>	<b>Date: 12/12/2020</b>
The PP has submitted the revised PDD, referring the latest template CDM-PDD-FORM, found to be appropriate, hence accepted.	
CAR #3 is closed.	

<b>CAR ID</b>	04	<b>Section no.</b>	D.4.1.	<b>Date</b>	:05/10/2017
<b>Description of CAR</b>					
1. The PP is requested to clarify which specific sub- criteria of Methodology are applicable to project under section B.2 of the PDD.					
2. The PP is requested to provide evidence to support that the intimation has been sent to UNFCCC about CDM consideration of project well before 6 months of proposed CDM project activity start date.					
<b>Project participant response</b>					<b>Date : 17/02/2018</b>
1. Specific sub- criteria of Methodology applicable to project is now mentioned in section B.2 of the PDD.					
2. Project start consider as 29/03/17 (EPC contract between KWFDPL and MITCON), PP intimated UNFCCC on 05/05/17 which is within 6 months of the project activity start date. Submitting herewith CDM project activity prior consideration form and email communication to UNFCCC and confirmation email from UNFCCC for reference.					
<b>Documentation provided by project participant</b>					
Duly filled and signed prior consideration form dated 04/05/2017					
Email communication to UNFCCC – submission of prior consideration form dated 05/05/2017					
Confirmation email from UNFCCC – submission of prior consideration form dated 17/05/2017					
<b>DOE assessment</b>					<b>Date: 30/03/2018</b>
1. The PP has updated the section B.2 of PDD with reference to applicability of specific sub- criteria of applied methodology, found to be satisfactory.					
2. The PP has submitted the email communications regarding the prior CDM consideration notification sent to UNFCCC for project and found to be satisfactory.					
CAR #4 is closed.					

<b>CAR ID</b>	05	<b>Section no.</b>	D.4.5	<b>Date</b>	:05/10/2017
<b>Description of CAR</b>					
1. Please clarify how the capacity of project has been calculated based on technical specification as from technical description provide in section A.3 is not clearly mentioned the same. Furthermore, please clarify the inconsistency in project title as says 10 MW whereas the calculation shows 12.2 MW. Please justify the capacity of the project with appropriate supporting documents.					
2. The PP is requested to clarify how the PLF is appropriately considered for estimation of annual generation as per CDM requirement.					
<b>Project participant response</b>					<b>Date : 17/02/2018</b>

- 12.12 MWp (DC) is the installed capacity of the project, as per PPA contracted capacity of the project is 10 MW (AC), following losses considered for simulation of plant capacity (irradiation losses, soiling, cable, module mismatch, power quality, etc.), For detailed estimation & loss calculation please refer Energy Production assessment report prepared by third party engineering company DNV-GL dated 09/05/2017.
- As per PLF guidelines for the reporting and validation of plant load factor (EB 48 Annex 11), the plant load factor can be validated by a third party contracted by project participant (e.g., an engineering company), expected annual generation by the project activity (18,775 MWh) is considered as per long term average energy production estimation by DNV – GL report dated 09/05/2017, a report prepared by third party engineering company. Hence followed PLF guidelines as per CDM requirement. Submitting herewith third-party engineering company report on energy production assessment for reference.

**Documentation provided by project participant**

Energy Production assessment report prepared by third party engineering company DNV-GL dated 09/05/2017.

ER sheet

Revised PDD

**DOE assessment****Date:** 30/03/2018

- The PP has calculated the emission reductions considering the AC capacity of the project (10MW) and revised the ER sheet & PDD accordingly, found to be acceptable.
- The PLF of the project activity has been considered as per the Energy Production assessment report prepared by third party engineering company DNV-GL and found in accordance with the guidelines provided under Annex 11 of EB 48, hence accepted.

CAR #5 is closed.

CAR ID	06	Section no.	D.4.8.	Date	:05/10/2017
<b>Description of CAR</b>					
<ol style="list-style-type: none"> <li>The PP is requested to describe how the compliance of the monitoring plan with the applied methodology(ies) as per VVS. The PDD has not provided an indicative metering diagram in the PDD.</li> <li>The PP is requested to modify the monitoring parameter section B.7.1 as per actual monitoring system already installed at site and also requested to provide Meter Reading Report and Bill as evidence to support the monitoring process.</li> </ol>					
<b>Project participant response</b>					<b>Date</b> : 17/12/2018
<ol style="list-style-type: none"> <li>Indicative metering arrangement is now mentioned in revised PDD.</li> <li>Necessary corrections done in the monitoring parameter section B.7.1 and B.7.2 as per actual monitoring system installed at site. Also submitting herewith monthly copy of Joint Meter Reading (JMR) and invoice for sale of electricity for the reference.</li> </ol>					
<b>Documentation provided by project participant</b>					
Copy of Joint Meter Reading (JMR) and invoice for sale of electricity for the month of Oct., Nov. & Dec. 2017					
<b>DOE assessment</b>					<b>Date:</b> 30/03/2018
<ol style="list-style-type: none"> <li>The PP has updated the description of monitoring plan in section B.7.3 of the PDD and included the line diagram of the metering arrangement, found to be satisfactory.</li> <li>The PP has included the monitoring parameter in section B.7.1 of the PDD and found consistent with the JMR/Invoice submitted, hence accepted.</li> </ol>					
CAR #6 is closed.					

CAR ID	07	Section no.	D.4 and D.7	Date	:05/10/2017
<b>Description of CAR</b>					
<ol style="list-style-type: none"> <li>The PP is requested to justify the CDM project activity start date mentioned in section C.1.1. as per CDM requirement.</li> <li>As per instruction for filling out the PDD form, the PP is requested to include whether it is first, second or third crediting period in section C.2.1.</li> <li>The PP is requested to provide realistic start date of crediting period in section C.2.2 of the PDD.</li> </ol>					
<b>Project participant response</b>					<b>Date</b> : 17/02/2018

1. Project activity start date is the financial commitment by the PP for the project activity, 29/03/2017 is considered as a start date of the project activity (i.e., date of contract between KWFDPL & MITCON) 2. Necessary corrections in section C.3.1 of the revised PDD. 3. Start date of crediting period is now revised in section C.3.2 of the revised PDD.	
<b>Documentation provided by project participant</b>	
Revised PDD version 02 dated 17/02/2018	
<b>DOE assessment</b>	<b>Date: 30/03/2018</b>
Start date of the project activity is considered as the date (29/03/2017) when the PP(KWFDPL) has signed the EPC contract with MITCON Consultancy and Engineering Services. Since this event is the earliest real action/ financial commitment by the PP for the project activity, hence the start date is found to be appropriate. The PP has updated the section C.2.1 of the PDD, specifying the crediting period, found satisfactory. Start date of crediting period is updated in section C.2.2 of the PDD, found satisfactory. CAR #7 is closed.	
<b>CAR #7 Re-opened</b>	<b>Date: 30/11/2019</b>
The PP is requested to provide realistic start date of crediting period in of the PDD. Please clarify why the information's are not provided in section E.1 of the PDD: <ol style="list-style-type: none"> <li>1. Minimum group of stakeholders involved.</li> <li>2. Means for inviting stakeholders' participation and date of invitation.</li> <li>3. The information to be made available to stakeholders</li> </ol>	
<b>Project participant response</b>	<b>Date: 12/11/2020</b>
The start date of the crediting period is 25/12/2020 which is the date of submission of complete request for registration by the DOE whichever is later. Hence, Revised PDD. The following information are updated in Section E.1 of the revised PDD: - <ol style="list-style-type: none"> <li>1. Minimum group of stakeholders involved.</li> <li>2. Means for inviting stakeholders' participation and date of invitation.</li> <li>3. The information to be made available to stakeholders.</li> </ol>	
<b>Documentation provided by project participant</b>	
Revised PDD Version 04, dated 12/11/2020	
<b>DOE assessment</b>	<b>Date: 12/11/2020</b>
The PP has updated the start date of crediting period in section C.2.2 of the revised PDD, found to be satisfactory. The PP has updated the section E.1 in the revised PDD including all the information regarding local stakeholder consultation as per the comments raised, found to be satisfactory, hence accepted. Attendance list and minutes of meeting (MoM) for the stakeholder meeting conducted is submitted and found to be appropriate. CAR #7 is closed.	

Table 3. FARs from this validation

FAR ID	-	Section No.	-	Date : DD/MM/YYYY
<b>Description of FAR</b>				
NA				
<b>Project participant response</b>				<b>Date : DD/MM/YYYY</b>
NA				
<b>Documentation provided by project participant</b>				
NA				
<b>DOE assessment</b>				<b>Date: DD/MM/YYYY</b>
NA				

- - - - -

**Document information**

<i>Version</i>	<i>Date</i>	<i>Description</i>
04.0	31 May 2019	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN);</li> <li>• Make editorial improvements.</li> </ul>
03.1	11 January 2018	Editorial revision to remove an erroneously included instruction paragraph in section D.2 (Identification of project type).
03.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
02.0	22 July 2016	EB 90, Annex 3 Revision to include provisions related to automatically additional project activities.
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: project activities, validation report		