





**Validation report form for post-registration changes for  
CDM project activities  
(Version 02.0)**

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the project activity</b>	Vaayu India Wind Power Project in Tamilnadu UNFCCC ref.No-4930
<b>Process track</b>	<input checked="" type="checkbox"/> Prior approval <input type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
<b>Version number of the validation report on PRCs</b>	04
<b>Completion date of the validation report on PRCs</b>	14/11/2018
<b>Type(s) of PRCs</b>	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines <input checked="" type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input checked="" type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools <input checked="" type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation project activities
<b>Version number of PDD to which this report applies</b>	10
<b>Project participants</b>	Vaayu (India) Power Corporation Private Limited ACT Financial Solutions B.V. First Climate Markets A.G.
<b>Host Party</b>	India
<b>Applied methodologies and standardized baselines</b>	ACM0002version 12.1.0 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" Standardized baselines: NA
<b>Mandatory sectoral scopes linked to the applied methodology</b>	Sectoral Scope 1 – Energy industries (renewable/ non-renewable sources)
<b>Conditional sectoral scopes linked to the</b>	NA

<b>applied methodologies</b>	
<b>Name and UNFCCC reference number of the DOE</b>	 LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC ref. No of the DOE - E-0032
<b>Name, position and signature of the approver of the validation report on PRCs</b>	Name: Juan Sendín Caballero Position: Applus+ Certification BU Managing Director Signature: 

**SECTION A. Executive summary**

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The project activity consists of 63 WTGs (0.8 MW capacity each), making the total installed capacity to be 50.4 MW in the Tirunelveli district in Tamil Nadu, India. The WTGs are supplied and maintained by Wind World (India) Limited (WWIL). The WTGs have been commissioned between 29/09/2010 and 11/07/2011. All 63 WTGs are fully functional and the assessment team verified this during the site visit.

The basic details of the project activity are mentioned below:

Project title	Vaayu India Wind Power Project in Tamilnadu
UNFCCC registration number	4930
Date of registration	19/07/2011
Sectoral scope	1 – Energy industries (renewable/ non-renewable sources).
Methodology/ies applied	ACM0002, Version 12.1.0
Project participant	Vaayu (India) Power Corporation Private Limited
Location of Project Activity	Tirunelveli district, Indian State of Tamil Nadu

**Scope of validation**

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Vaayu (India) Power Corporation Private Limited to conduct the verification and certification of emission reductions reported for the CDM project activity “Vaayu India Wind Power Project in Tamilnadu” (UN ref no. 4930) in India for the period 12/02/2016 to 02/01/2018 (including both days).

During the course of verification, the PP has decided to propose Post Registration Changes to the project activity in order to address the findings raised as part of verification. The scope of validation remains limited to the proposed changes to the registered PDD. This validation is an independent and objective review of the post registration changes proposed in the revised PDD against latest CDM Validation and Verification Standard (CDM VVS for PAs version 01.0), Project Standard (CDM PS for PAs version 01.0), Project Cycle Procedures (CDM PCP for PAs version 01.0) and other related requirements, as appropriate.

**Validation process**

The validation process is undertaken by verification team that involved the desk review of proposed changes as submitted by the PP, undertaking site visit, interview or interactions with the representative of PP, reporting and closure of findings, as appropriate and preparing a draft validation report complying with the CDM requirements. An independent Technical Review team reviews the validation report prepared by the team. The final validation report accepted by Technical Reviewer is then approved on behalf of Applus+ Certification and processed further as per CDM procedures.

**Conclusion**

The description in the revised PDD, Version 10 dated 03/10/2018 meets all relevant UNFCCC requirements for the CDM and correctly applies the selected baseline and monitoring methodology.

This report is the assessment opinion for all the changes that are proposed in the registered monitoring plan, change in the project design and corrections in the registered PDD; the changes are permanent in nature and therefore there is no temporary deviation from the registered monitoring plan. The proposed changes to the registered PDD are not all covered under Appendix of the CDM Project Standard for project activities version 1.0 (EB 93, Annex 04) and hence require prior approval by the Board.

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

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**B.1. Validation team member**

No.	Role	Signature	Last name	First name	Affiliation	Involvement in
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					(e.g. name of central or other office of DOE or outsourced entity)	Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader	OR	Ahirwar	Vivek Kumar	GCEES ( <i>Outsourced Entity</i> )	Y	Y	Y	Y
2.	Auditor in Training	OR	Soni	Ravi Kant	GCEES ( <i>Outsourced Entity</i> )	Y	Y	Y	Y
3.	Local Expert & Technical Expert (TA1.2)	OR	Ahirwar	Vivek Kumar	GCEES ( <i>Outsourced Entity</i> )	Y	Y	Y	Y
4.	Financial Expert	OR	Ahirwar	Vivek Kumar	GCEES ( <i>Outsourced Entity</i> )	Y	Y	Y	Y

## B.2. Technical reviewer and approver of the validation report on PRCs

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	Sendin	Juan	Applus+ Certification

## SECTION C. Means of validation

### C.1. Desk/document review

>> Applus+ Certification conducted a desk review as under;

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

In addition to the monitoring documentation, Applus+ Certification has reviewed;

- The registered PDD Version 06 dated 28/12/2015, revised PDD version 10, dated 03/10/2018 and the monitoring plan;
- The applied monitoring methodology (ACM0002 Version 12.1.0);
- Any other information and references relevant to the project activity's emission reductions (e.g. IPCC reports, data on electricity generation in the national grid or laboratory analysis and national regulations).

The complete list of documents reviewed is included under Appendix 3.

**C.2. On-site inspection**

<b>Duration of on-site inspection: 24/02/2018</b>				
<b>No.</b>	<b>Activity performed on-site</b>	<b>Site location</b>	<b>Date</b>	<b>Team member</b>
1.	Confirm the implementation and operation of the project;	WTG project site at Vagaikulam, Kuruchikulam, Ettankulam, Kalakudi, Muthammalpuram, Ukkirankottai villages in Tirunelveli district in Indian State of Tamilnadu	24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
2.	Review the data flow for generating, aggregating and reporting the monitoring parameters;		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
3.	Confirm the correct implementation of procedures for operations and data collection;		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
4.	Cross-check the information provided in the MR documentation with other sources;		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
5.	Check the monitoring equipment against the requirements of the PDD and the approved methodology, including calibrations, maintenance, etc.;		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
6.	Review the calculations and assumptions used to obtain the GHG data and ER;		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni
7.	Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.		24/02/2018	Vivek Kumar Ahirwar & Ravi Kant Soni

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Yadav	Vikash	Vaayu (India) Power Corporation Private Limited (Manager)	24/02/2018	Project Activity Description, implementation and operation of the project. Calculations and assumptions used to obtain the GHG data and ER.	Vivek Kumar Ahirwar & Ravi Kant Soni
2.	Bharthi	P	WWIL (Engineer)	24/02/2018	Post registration changes	Vivek Kumar Ahirwar & Ravi Kant Soni
3.	Palani	R	WWIL(Sr. Engineer)	24/02/2018	Monitoring Data & Records, Energy Bills/Records	Vivek Kumar Ahirwar & Ravi Kant Soni
4.	Kumar	Lavan	WWIL (Technician)	24/02/2018	Monitoring, equipment , calibrations, maintenance, data records, certificates etc.;	Vivek Kumar Ahirwar & Ravi Kant Soni
5.	Borah	Deepjyoti	Vaayu (India) Power Corporation Private Limited (Sr.Manager)	25/10/2018 (telephonic)	Project Activity Description, implementation and monitoring plan of the project.	Vivek Kumar Ahirwar & 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
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines	-	-	-
Corrections	-	CAR #1	-
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan	-		
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools	-	CAR #2 and CAR #5	-
Changes to the project design	-	CAR #3 and	-

		CAR #4	
Changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
<b>Total</b>	-	05	-

## SECTION D. Validation findings

### D.1. Compliance with PDD form

<b>Means of validation</b>	The project participants used a later version of the PDD form/23/ for the revised PDD than the version of the PDD form of the registered PDD. By means of checking updated PDD with the latest applicable and available PDD template form, version 10.1, the DOE can confirm that the information transferred to the later version of the PDD form is materially the same as that in the registered PDD besides those changes highlighted and assessed under this report.
<b>Findings</b>	No finding was raised
<b>Conclusion</b>	The updated PDD is in line with the latest applicable PDD form.

### D.2. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines

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

### D.3. Corrections

<b>Means of validation</b>	<p>The following corrections have been made in the registered PDD version 06, dated 28/12/2015:</p> <ol style="list-style-type: none"> <li>1. Section A.1: web links provided under footnotes 2 &amp; 3 are updated as existing web links were not functional and footnote 1 is added. Hence, this change does not affect the content of the registered PDD/01/.</li> <li>2. Section A.3: Name of the equipment supplier/O&amp;M contractor is updated. With effect from 01/01/2013, the company name of Enercon (India) Limited (equipment supplier/O&amp;M contractor) has been changed to 'Wind World (India) Limited'. The change of name has been reported in the revised PDD. This information is verified through the 'Fresh Certificate of Incorporation Consequent up on change of name /16/ issued by the Ministry of Corporate Affairs (GOI) and from the company website <a href="http://www.windworldindia.com/background-note.jsp">http://www.windworldindia.com/background-note.jsp</a> , found to be acceptable. Web links provided under footnote 4 updated as existing web link were not functional.</li> <li>3. Section A.4: Details of the other project participants involved in the project activity is added in the table and a footnote number 5 is also included. This change does not affect the content of the registered PDD/01/.</li> <li>4. Section B.4: Information about the connectivity of project to the grid system is updated in line with the CEA database version 11 (published in April 2016). New footnote #6 is added and existing footnote #8 is updated as earlier web link were not functional. This change does not affect the content of the registered PDD/01/.</li> <li>5. Section B.5: Name of the equipment supplier/O&amp;M contractor is changed as Wind World (India) Limited (WWIL). Also some editorial corrections regarding the tariff rate and IRR are done to reflect the post registration changes, does not affect the content of the registered PDD/01/.</li> <li>6. Section B.6.1: Typographical error regarding the notation of emission factors is rectified and web link of CEA database is updated, Since the corrections are of editorial nature, hence does not affect the content of the registered PDD/01/.</li> </ol>
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	<p>7. Section B.7.1: PP has revised the section number from “B.7.2” to “B.7.3” and Annex-4 to Appendix-5. This is in line with the instructions for filling the PDD form version 10.1. Hence, this change does not affect to the content of the registered PDD/01/. Also the calibration frequency is revised from annually to once in 5 years. It is to be noted that calibration frequency for the meters is once in 5 years as mentioned in section B.7.3 of the registered PDD, however the same was not updated in section B.7.1. This change is editorial correction, hence does not affect the content of the registered PDD/01/.</p> <p>8. Section C.3.2: Start date of crediting period is corrected and made consistent with the same reflected at project UNFCCC web page. This change does not affect the content of the registered PDD/01/.</p> <p>9. Appendix 1: Name and email ID of the project proponent is updated as Yogeshh Mehra in place of Yogesh Mehra. This is minor editorial correction, hence does not affect the content of the registered PDD/01/.</p>
<b>Findings</b>	CAR #1 ,CAR #2 raised and resolved
<b>Conclusion</b>	<p>The assessment team has verified the revised PDD and confirmed that all the minor editorial changes made in the revised PDD/02/ are in line with the actual scenario observed at the site and represent current scenario at the time of submission of the revised PDD/02/. This is in line with paragraph 287-289 of the VVS for project activities version 1.0/11/. These corrections do not require prior approval as per paragraph 1, Appendix of the CDM Project Standard for project activities version 1.0(EB 93, Annex 04)/12/. However, these corrections are being submitted with the post registration changes for approval. Further, it is confirmed that, the changes do not affect the project design and comply with Appendix of the CDM project standard for project activities version 1.0/12/.</p> <p>It is to be noted that this project is registered under the previous regulatory framework (VVM track), and the old information is transferred to the new VVS track form. The verification team confirms that the material (information) included in the new form is materially the same as the information in the registered PDD.</p>

**D.4. Changes to the start date of the crediting period**

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

**D.5. Inclusion of a monitoring plan**

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



**D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools**

<p><b>Means of validation</b></p>	<p>The permanent changes in the monitoring plan as outlined under registered PDD are a result of a CAR raised during the sixth periodic verification of the project activity.</p> <p>The project activity involves supply, erection, commissioning and operation of 63 machines of rated capacity 800 kW each. However, in Feb 2016, ownership of 19 machines has been transferred to its subsidiary company "Vaayu Renewable Energy (Godavari) Private Limited (VREGPL)"/15/. As per the registered PDD, the project activity was supposed to supply the generated electricity to state electricity authority (TNEB), but post ownership change, PPA for 19 WTGs has also changed. The new PP (VREGPL) has signed the PPA with a third party (JK Tyre &amp; Industries Limited).</p> <p>At present, the electricity generated by these 19 machines is being pooled through Tamil Nadu state distribution &amp; transmission network first to state grid (part of southern grid which is now integrated with Indian Grid) and then further supplied to JK Tyre &amp; Industries.</p> <p>Main changes to the registered monitoring plan are identified due to monitoring of electricity generated by the 19 WTGs, transferred to new entity VREGPL.</p> <p>The revision in the monitoring plan has been proposed by the PP in response to the CAR, along with the revised PDD/02/ and the changes are summarized below.</p> <p>Change #1: Description of all monitoring parameters along with QA/QC procedure is updated under section B.7.1 for more transparency and to reflect the actual monitoring of parameters in case of third party sale scenario.</p> <p>Change #2: Corrections have been made under section B.7.3 of PDD in line with the changes identified in the registered monitoring plan.</p> <p>Change #3: Single line diagram showing all the monitoring point is updated in section B.7.3 to reflect the third party sale scenario.</p> <p><b><u>Validation of Changes to the registered Monitoring Plan:</u></b></p> <p>As per the registered monitoring plan/01/ monthly values of the electricity supplied to the grid are supposed to be cross checked with the invoices raised by the PP to the state utility.</p> <p>However since the part of project activity (19 WTGs) is supplying the electricity to a third party, hence in this case the electricity bill will be raised by the state utility to the third party and in turn, the invoice will be raised by the project participant to the third party. Since the third party industrial unit also consumes electricity from other sources, the electricity bill raised by the state utility will have a different figure for net electricity supplied (or exported), when compared with the same figure reported in the invoice raised to the third party by the PP. In other words, the electricity bill raised by the state utility to the third party will provide the value of cumulative electricity consumption (from other sources and from project activity as well) in a particular month. The state utility provides monthly electricity statements to the PP, which mentions the net electricity exported from the project activity to the third party. The project participant raise invoice to the third party considering the value of electricity exported provided by the state utility in monthly statements; hence in case of third party sale monthly values of net electricity exported will be cross checked with the invoices raised by the PP to third party.</p> <p>However in order make the cross check mechanism more robust in third party sale scenario, the value of net electricity exported to the third party, as reflected in monthly statements issued by the state utility, will be cross checked with the monthly electricity generation by the project activity recorded through the LCS meter after subtracting the electricity import and transmission losses.</p> <p>Moreover the net electricity export value as mentioned in the monthly statement (without discounting wheeling &amp; banking of electricity), issued by the state utility, will be used for emission reduction calculations.</p> <p>The process of monitoring of net electricity export is under purview of state electricity board and the PP does not have any control on it.</p>
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The assessment team confirms that this approach is appropriate and satisfactory. The assessment team is able to confirm that the changes do not affect the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.

The proposed permanent changes (addition of QA/QC procedure for parameter  $EG_{BL,y}$  and revision in information of monitoring parameter in line with third part sale scenario) to the monitoring plan as described in the registered PDD are not covered under Appendix of the CDM project standard for project activities version 1.0/12/ and hence require prior approval by the Board.

**Paragraph 297 VVS for PAs v01.0** –“*The DOE shall determine whether the changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodologies, standardized baselines and other applied standards or tools, and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan*”.

**Assessment team opinion:**

As per the monitoring plan outlined under the registered PDD, the parameter net electricity export to state grid by the project activity should have been cross checked with the invoices raised by PP to state utility in line with the requirement of applied methodology ACM0002 version 12.1.0.

However as per the JMR for the month February 2016, verified during the site visit, the electricity generated by the project activity is being sold to a third party through Tamil Nadu state distribution & transmission network (i.e. Southern grid) from 12/02/2016 onwards. Hence in this scenario invoicing will be done on the basis of electricity bill raised by state utility to third party. It is worth noting that the electricity bill raised by the state utility to the third party will provide the value of cumulative electricity consumption (from other sources and from project activity as well) in a particular month. In the case of third party sale, the State utility issued monthly statement to the PP that mentions the net electricity export by the project activity to the third party in a particular month and the PP raises the invoice to third party based on the monthly statement only. Hence in this scenario monthly values of net electricity export will be cross checked through the invoices raised to the third party by the PP.

In addition, in the case of third party sale (19 WTGs), the monthly values of net electricity exported by project activity will be cross checked with the monthly electricity generation by the project activity recorded through the LCS meter after subtracting the electricity import and transmission losses.

Moreover the net electricity export value as mentioned in the monthly statement (without discounting wheeling & banking of electricity), issued by the state utility, will be used for emission reduction calculations.

The proposed revision of the monitoring plan is verified to be in accordance with the approved monitoring methodology applicable to the project activity. There is no change in monitoring parameter and only QA/QC procedure has been changed in case of third party sale scenario. The assessment team is able to confirm that the methodology is still applicable and that there is no adverse impact on the application of baseline methodology due to the observed changes.

**Metering arrangement and calculation of  $EG_{PJ,y}$ :**

There are separate dedicated meter has been installed for particular WTG or group of WTGs at 33 kV metering points (generation end); the assessment has physically verified the same during the site visit. All the WTGs (i.e. 44 WEGs by VIPCPL and 19 WEGs by VREGPL) are further connected to the WWIL pooling substation at Pillayarkulam (110 kV bulk metering point).

The bulk metering point at WWIL substation having one main meter and check meter. It is to be noted that the project activity WTGs and non-project WTGs are connected to the bulk metering point, hence the net electricity supplied to the grid/third party by project activity( at 110 kV metering point) is calculated adjusting the transmission losses to the generation recorded at 33 kV metering point.

The apportioning procedure to calculate the net electricity supplied to the grid by the WTGs of the project activity has been correctly described in section B.7.3 of the revised PDD. This was also verified by interviewing the staff at the sub-station and

	<p>the officials of the state utility.</p> <p>Post apportioning, TANGEDCO issues "Monthly statement of electricity generation" issued by TANGEDCO that mentions the electricity imported, electricity exported, transmission losses and net electricity supplied by all the WTGs of project activity at the sub-station. These values (mentioned in "Monthly statements") are the main source to calculate the baseline emission by this project activity and same is in line with section B.7.1 of the revised PDD/02/.</p> <p>It is worthy to note that the monthly statement issued by TANGEDCO for each WTG indicates the HTSC number and ownership of the respective machine, hence in case third party sale electricity generated and supplied by the 19 WEGs by VREGPL could be evidently monitored through the existing metering arrangement as described in the revised PDD.</p> <p>The monthly statements are issued by TANGEDCO, is prepared and endorsed by an external government agency i.e. the State Electricity Board and the PP has no influence in the entire procedure. Hence the data issued by the state electricity board through the monthly statements is considered to be authentic.</p> <p>The assessment team is able to confirm that there are no changes observed in monitoring equipment's, or location of meters in case of third party sale through Tamil Nadu state distribution &amp; transmission network (i.e. Southern grid). However the project participant has modified the line diagram showing metering points in section B.7.3 of PDD, just to reflect the post registration changes and for better understanding and transparency.</p> <p>It is verified through the revised PPA that the responsibilities of the state utility regarding the measurement of parameters and calibration of meters shall remain unchanged if the project activity is supplying the electricity to third party. The assessment team is of the opinion that the proposed changes do not affect the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</p> <p><b>Paragraph 297 VVS for PAs v01.0</b> <i>"The DOE shall determine whether permanent changes to the registered monitoring plan are likely to lead to a reduction in the accuracy of the calculation of GHG emission reductions or net anthropogenic GHG removals....."</i></p> <p>There are no impacts on emission reduction calculations due to change in the monitoring plan. As per the revised monitoring plan the net electricity export to third party (by 19 WTGs) will be cross checked with monthly electricity generation by the project activity (recorded through the LCS meter fitted at the controller panel of each WEC) after deduction of electricity import and transmission losses, however the net electricity export value as mentioned in the monthly statement (without discounting wheeling &amp; banking of electricity), issued by the state utility, will be used for emission reduction calculations. This approach is found to be reasonable and hence accepted.</p>
<b>Findings</b>	CAR #1 ,CAR #2 and CAR #5 was raised and resolved
<b>Conclusion</b>	<p>In line with the guidelines prescribed under paragraph 296-299 of CDM VVS for project activities version 01, the assessment team able to confirm that:</p> <ul style="list-style-type: none"> <li>(a) The changes to the registered monitoring plan are permanent in nature and do not deviates from the relevant requirements applied methodology and comply with the relevant requirements related to the permanent changes to the registered monitoring plan in the "CDM project standard for project activities".</li> <li>(b) The changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodology ACM0002 version 12.1.0, and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</li> <li>(c) The permanent changes to the registered monitoring plan are not likely to lead to a reduction in the accuracy of the calculation of GHG emission reductions or net anthropogenic GHG removals.</li> </ul>

	<p>(d) The permanent changes comply with the relevant requirements related to the permanent changes to the registered monitoring plan in the “CDM project standard for project activities”.</p> <p>A revised PDD reflecting the permanent changes in the monitoring plan is being submitted in line with the requirements outlined under paragraph 133-134 of CDM PCP for project activities version 1.0/13/</p>
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## D.7. Changes to the project design

<b>Means of validation</b>	<p>The following changes are done in the registered PDD/01/ to reflect the changes to the project design of the registered project activity.</p> <p>Section A.4: Names of the PPs have been revised.</p> <p>Section B.2: revision has been made in applicability of methodology in line with present project scenario from 15/06/2013 onwards to reflect the changes to the project design of the registered project activity i.e. reference of third party is added. The project remains grid connected wind power plant as per methodology applicability criteria and is accepted.</p> <p>Section B.3: Project boundary diagram has been revised considering both the scenarios (pre &amp; post change of ownership).</p> <p>Section B.7.3: Correction has been made to make the data measurement procedure more understandable and the single line diagram has been revised. Moreover monitoring information has been updated to reflect the changes to the project design of the registered project activity.</p> <p>Section B.7.3: Procedure for data uncertainty, correction in O&amp;M structure, Monitoring roles and responsibilities has been revised to reflect the changes to the project design of the registered project activity.</p> <p>Appendix 1, contact information of the new PP has been added.</p> <p><u>Main changes to the project design identified from the registered project as discussed below.</u></p> <p>As per the registered PDD /01/, the project was owned by Vaayu (India) Power Corporation Private Limited and electricity generated by the project activity was being supplied to state electricity board (state grid) at INR 3.39/kWh. During the site visit for the sixth periodic verification, it was found that 19 WTGs of the project activity has been transferred to a new Project Participant /07/ “Vaayu Renewable Energy (Godavari) Private Limited (VREGPL)” and the electricity generated by these WTGs is being sold to a third party at a different tariff rate of INR 5.25/kWh. This information is also verified through the revised PPA/09/ signed with the third party and the invoices raised by the new entity to third party /18/. It is to be noted that new entity VREGPL is a subsidiary of Vaayu (India) Power Corporation Private Limited/15/.It is to be noted that in future existing project participant Vaayu (India) Power Corporation Private Limited will manage CDM and GS activities for 19 WTGs of project activity, this is verified through the authorization letter/24/ issued by new project participant (VREGPL).</p> <p>It is also verified that the new tariff rate is fixed for the next 10 years which is beyond the end date of crediting period (18/07/2021). The change in ownership (i.e. change in Project Participant) of the project activity has also been confirmed from the certified copy of the declaration from director, dated 12/10/2015/07/ and the PPAs signed by the new entity with third party.</p> <p><b>Validation of Ownership change and assessment opinion:</b> In line with the guidelines provided under paragraph 309(b) and (c) of VVS for PAs version 01.0, the assessment team would like to clarify the following: The change in ownership for 19 WTGs has taken place from February 2016 as verified through the JMR/Invoices raised by the new project participant to third party. It is also confirmed that this change was not known to the previous PP at the time of registration and would not have any impact on the overall operation/ability of</p>
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the project activity to deliver emission reductions as stated in the registered PDD. It is also confirmed that there is no impact on the operation and data monitoring due to ownership change because the O&M contractor is same for both new and existing project participant.

The assessment team has also checked if the change in ownership would affect the conclusions of the validation report of the registered PDD with regard to:

(i) Additionality of the project activity;

As per the clarification (Ref. No-AM\_CLA\_0223)/14/, ownership change does not adversely affect the additionality of a registered project activity and is accepted.

(ii) Scale of the project activity;

Change in ownership is not relevant to the scale of the project activity as there is no change in the project capacity due to ownership change, this is also verified through the revised PPA/09/ hence it does not affect the conclusions of the validation report of the registered PDD regarding the same.

(iii) Applicability and application of approved baseline methodology under which the project activity has been registered or the later version of the applied methodology; Change in ownership does not impact the applicability and application of the approved baseline methodology; hence it does not affect the conclusions of the validation report of the registered PDD regarding the same.

(iv) The compliance of the monitoring plan with applied monitoring methodology.

In case of third party sale, there are changes to the QA/QC procedure of the parameter net electricity supplied, however the same improves the accuracy of monitoring; hence it does not change the conclusions of the validation report of the registered PDD regarding the same. This issue is discussed in detail under section D.6 of this report.

(v) The proposed changes do not reduce the level of accuracy and/or completeness of monitoring procedure, and the conformity with the applied approved monitoring methodology compared with the requirements contained in the registered monitoring plan.

In view of the above analysis it can be confirmed that the ownership change does not change the conclusions of the validation report of the registered PDD with regards to the criteria outlined under paragraph 309(c) of VVS for PAs version 01.0.

**Assessment and validation opinion on electricity sell to third party at different tariff rate:**

As verified through the monthly generation reports issued by state utility for the month of February 2016/18/, the electricity generated by the 19 WTGs of project activity is being sold to a third party through the Tamil Nadu state distribution & transmission network (i.e. Southern grid) from February 2016 onwards at a tariff rate of INR 5.25/kWh. This change occurred because of the PPA change; the new PP has entered into open access agreement with a third party (JK Tyre & Industries Limited ) as verified through revised PPAs/09/ signed on 19/11/2015( 7 WTGs) and 03/11/2016 (For 12 WTGs). Further it is noted that in future the third party buyer may be changed depending on any legal obligation or any other reason that is not under control of PP.

Since the changes occurred after the registration of the project activity and by interviewing the PP's representative during the site visit, the assessment team is able to confirm that the changes were not known to the PP at the time of registration of the project activity. As the project activity is supplying the electricity to a third party using Tamil Nadu state distribution & transmission network (Southern grid) and emission reductions will be claimed on the basis of the net electricity figure provided in the monthly electricity generation statement issued by TNEB, it can be confirmed that this change would not impact the overall operation/ability of the project activity to deliver emission reductions as stated in the registered PDD (Ref: paragraph 309(b) of VVS for PAs version 01.0).

The assessment team has also checked if the change in tariff rate and third party sale, would affect the conclusions of the validation report of the registered PDD with regards to:

**(i) Additionality of the project activity:**

Since post ownership change, the project activity will be supplying electricity to a third party (JK Tyre & Industries Limited ) at a different tariff rate; hence additionality of the project activity is re-assessed only modifying the key parameter (tariff rate) in the original IRR spreadsheet in line with paragraph 304(a) of VVS for PAs version 01.0.

As per the clarification (AM\_CLA\_0223), the Meth Panel clarifies that if the full or part of the original PPA has changed and the project sells the power at a different electricity rate at the time of validation, then the DOE shall establish that the input values would have materially changed and the latest values for the electricity price need to be considered. Since the part of original PPA is changed, investment analysis is revised using the latest value of electricity price and the IRR is re-calculated and is therefore in line with clarification (AM\_CLA\_0223).

**Additionality for existing 44 WTGs (VIPCPL):**

Since the PPA for 44 WTGs is remaining unchanged, hence reassessment of additionality is not required in this case. The PP has submitted revised IRR sheet after excluding the 19 WTGs and IRR for this part of project (44 WTGs) comes out as 6.69%, which is well below the benchmark 16.84%.

In line with the paragraph 20 and 21 of the "Guidelines on the Assessment of Investment analysis", the PP has done a sensitivity analysis considering change in the key parameter and the results are summarised in the table below:

Parameter	IRR with +10% variation	Base IRR	IRR with -10% variation	Threshold limit of variation	Benchmark
Capital cost	9.29%	6.69%	4.55%	+30.5%	16.84%
Tariff rate	8.82%	6.69%	4.53%	+50%	
PLF	8.88%	6.69%	4.49%	+48%	
O&M Cost	7.05%	6.69%	6.32%	Does not cross the benchmark even at -100%	

It is evident from above table that equity IRR doesn't cross benchmark at +/-10% variation. Since the project is already implemented, hence the percentage variation as indicated as threshold limit (at which the IRR crosses the benchmark) is not the likely scenario.

**Additionality for 19 WTGs (VREGPL):**

The assessment team has checked the revised investment analysis/03/ for 19 WTGs and it is confirmed that the IRR with new tariff rate arrives at 11.48% which is below the benchmark 16.84%. The tariff is fixed for the entire crediting period, but in line with the paragraph 20 and 21 of the "Guidelines on the Assessment of Investment analysis", the PP has done a sensitivity analysis over tariff rate and the results are summarised in the table below:

IRR with +10% variation	Base IRR	IRR with -10% variation	Benchmark
13.70%	11.48%	9.11%	16.84%

Since the applicable tariff for the first 10 years has been clearly defined (tariff will be fixed during third party sales i.e. from February 2016 onwards), but the same is unclear from the 11<sup>th</sup> year onwards (from year 2027). Hence the PP has calculated the tariff, post end of third party sale agreement in line with the 'cost + return on equity (16.84%, pre-tax)' approach as mentioned in the TNERC tariff order, based

on which commission calculates tariff and using assumptions that are valid to the project activity. As per this approach, the average tariff, post end of third party sale agreement, is 3.59 INR/kWh.

The assessment team has checked and confirmed that maximum IRR as 11.48% of project activity comes out at tariff of 5.25 INR/kWh after 10 years of third party sale agreement. Hence the PP has considered the tariff rate as 5.25 INR/kWh post third party sale agreement to assess the additionality, this approach is found to be conservative, hence accepted.

It is verified that the IRR crosses the benchmark at the sensitivity of +25% in tariff (i.e. at the tariff of INR 6.56/kWh) after the term of the third party sale agreement which is not a likely scenario because the third party sale agreement is already executed and tariff is fixed for first 10 years.

Sensitivity analysis for **capital cost**:

IRR with +10% variation	Base IRR	IRR with -10% variation	Benchmark
9.32%	11.48%	13.95%	16.84%

It is observed that the equity IRR does not cross the benchmark if the capital cost decreases by 10%. However equity IRR crosses the benchmark if the capital cost decreases by 20%. Since the project is already implemented and hence further reduction in the capital cost is not the realistic scenario.

Sensitivity analysis for **PLF**:

IRR with +10% variation	Base IRR	IRR with -10% variation	Benchmark
13.70%	11.48%	9.11%	16.84%

It is observed that the equity IRR does not cross the benchmark if the PLF increase by 10%. However equity IRR crosses the benchmark if the PLF increases by 25%. The assessment team has verified the actual generation data of last 5 year (December 2012 to November 2017) for the project activity and confirmed that the average annual PLF for project activity from 2012-2017 was below the PLF considered at the time of registration of project activity; hence it is not a likely scenario.

The assessment team has re-checked the results of the sensitivity analysis for the parameter O&M cost and concluded that the Equity IRR does not cross the benchmark with -100% variations.

In view of this information, the assessment team is able to confirm that the changes to the project design of the registered CDM project activity do not adversely impact the additionality of the project i.e. the change does not change the conclusions of the validation report of the registered PDD and project activity remains additional despite the change of the tariff rate for 19 WTGs.

**(ii) Scale of the project activity**

There is no impact on the scale of the project activity due to the change in tariff rate. The project activity remains as a large scale project activity.

**(iii) Applicability and application of approved baseline methodology under which the project activity has been registered or the later version of the applied methodology**

The project activity was registered with methodology ACM0002 version 12.1.0/10/. The project activity involves third party sale through grid and thus remains grid connected renewable power generation project, hence the assessment team is able to confirm that the methodology is still applicable and that there is no adverse impact on the application of baseline methodology due to the observed changes.

**iv) The compliance of the monitoring plan with applied monitoring methodology**

There are no changes observed in monitoring equipment's, or location of meters in case of third party sale through Tamil Nadu state distribution & transmission network (i.e. Southern grid). It is verified through the revised PPA/09/ that the

	<p>responsibilities of the state utility regarding the measurement of parameters and calibration of meters shall remain unchanged if the project activity is supplying the electricity to third party through Tamil Nadu state distribution &amp; transmission network.</p> <p>However in the third party sale scenario, QA/QC procedure for the parameter net electricity export, particularly cross checking mechanism is revised that is also in compliance with the applied methodology. This change is considered as permanent changes to the registered monitoring plan as described in the registered PDD and is not covered under Appendix of the CDM Project Standard for PAs, version 01.0/12/ and hence requires prior approval by the Board.</p>
<b>Findings</b>	CAR #3 and CAR #4 were raised and resolved
<b>Conclusion</b>	<p>In line with the guidelines prescribed under paragraph 308-309 of CDM VVS for project activities version 01.0, the assessment team able to confirm that:</p> <ul style="list-style-type: none"> <li>i. The proposed changes comply with the relevant requirements in the “CDM project standard for project activities” related to changes to the project design of a registered CDM project activity.</li> <li>ii. Proposed changes were not known prior to the registration of the CDM project activity, and the changes would not impact on the overall operation/ability of the CDM project activity to deliver emission reductions as stated in the PDD.</li> <li>iii. The proposed changes would not adversely affect the conclusions of the validation report of the registered PDD with regard to: <ul style="list-style-type: none"> <li>a. The additionality of the registered CDM project activity;</li> <li>b. The scale of the registered CDM project activity;</li> <li>c. The applicability and application of the applied methodology under which the registered CDM project activity has been registered.</li> <li>d. The compliance of the monitoring plan with the applied methodology.</li> <li>e. The level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</li> </ul> </li> </ul> <p>Therefore in line with the clause 1(d) of Appendix of the Project Standard for PAs version 01.0, the changes do not require prior approval by the Board</p>

#### D.8. Changes specific to afforestation and reforestation project activities

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

#### 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 approval is submitted to the CDM-EB along with the relevant documents.

#### SECTION F. Validation opinion

>> Applus+ Certification has performed the validation of the post registration changes of the project activity 4930 “Vaayu India Wind Power Project in Tamilnadu”. The validation was performed on the basis of rules and requirements defined by UNFCCC for the CDM project activities. The review of the revised PDD, supporting documentation and subsequent follow-up actions (including onsite visit and interviews), have provided Applus+ Certification with sufficient evidence to determine the fulfilment of stated criteria. The changes proposed are summarized in section D.6 and D.7 of this report.

The description in the revised PDD, Version 10 dated 03/10/2018 meets all relevant UNFCCC requirements for the CDM and correctly applies the selected baseline and monitoring methodology. This report is the



assessment opinion for all the changes that are proposed in the registered PDD, the changes are permanent in nature and therefore there is no temporary deviation from the monitoring plan. All the proposed changes to the registered PDD are not covered under paragraph 1 of Appendix of the CDM Project Standard for project activities version 01.0 and hence require prior approval by the Board.

## 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
DISCOM	Distribution Company
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)
IPCC	Intergovernmental Panel on Climate Change
JMR	Joint Meter Reading
MP	Monitoring Plan
MR	Monitoring Report
MWh	Megawatt hour
O&M	Operation and Maintenance
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
PRC	Post Registration Changes
PS	Project Standard
RMP	Revised Monitoring Plan
TANGEDCO	Tamil Nadu Generation and Distribution Corporation
TNEB	Tamil Nadu Electricity Board
TNERC	Tamil Nadu Electricity Regulatory Commission
TOD	Time of Day
TR	Technical Review
UID	Unique Identification number
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
WEC	Wind Energy Convertor
WTG	Wind Turbine Generator

## 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)	N/A	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	N/A

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 Master 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+ LGAI 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+ LGAI, he had been worked for TÜV SÜD as a GHG Validator/Verifier and ISO 9001/14001 Lead Auditor for 3.5years.

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PP	Registered PDD	Version 6.0,dated 28/12/2015	PP
1.1	PP	Revised PDD, Version 07	Dated 01/03/2018	PP
1.2	PP	Revised PDD, Version 08	Dated 02/05/2018	PP
1.3	PP	Revised PDD, Version 09	Dated 07/07/2018	PP
2	PP	Revised PDD, Version 10	Dated 03/10/2018	PP
3	PP	Revised IRR sheet (35.2 MW capacity)	Dated 01/03/2018	PP
3.1	PP	Revised IRR sheet (15.2 MW capacity), Version 01	Dated 01/03/2018	PP
		Revised IRR sheet (15.2 MW capacity), Version 02	Dated 07/07/2018	
4	UNFCCC	CDM Project Webpage (UNFCCC No. 4930) <a href="http://cdm.unfccc.int/Projects/DB/DNV-CUK1308823376.98/view">http://cdm.unfccc.int/Projects/DB/DNV-CUK1308823376.98/view</a>	-	Others
5	DNV	CDM Validation Report (Report No. 2010–0459 )	Revision 02 dated 16/06/2011	Others
6	ESPL	CDM Verification Report (Fifth Monitoring period 16/06/2015 to 11/02/2016)	Rev.03, dated 26/10/2016	Others
7	PP	Declaration note from Director regarding ownership change for 19 WTGs	Dated 12/10/2015	PP
8	State Utility	Commissioning certificates issued by Tamil Nadu generation & distribution corporation limited (for all for all 63 WTGs)	-	PP
9	PP	Revised Power Purchase Agreement between Vaayu Renewable Energy (Godavari) Pvt. Ltd and JK Tyre & Industries Limited	Dated 19/11/2015 (for 7 WTGs)  Dated 03/11/2016 (for 12 WTGs)	PP
10	UNFCCC	Methodology – ACM0002	Version 12.1.0	Others
11	UNFCCC	CDM VVS for project activities	Version 01.0	Others

12	UNFCCC	CDM PS for project activities	Version 01.0	Others
13	UNFCCC	CDM PCP for project activities	Version 01.0	Others
14	UNFCCC	Clarification regarding the demonstration of additionality in case of transfer of assets (AM_CLA_0223), <a href="https://cdm.unfccc.int/methodologies/PAmethodologies/clarifications/64293">https://cdm.unfccc.int/methodologies/PAmethodologies/clarifications/64293</a>	Dated 27/01/2012	Others
15	PP	Certified true copy of Shareholding pattern of Vaayu Renewable Energy (Godavari) Private Limited	-	Others
16	GOI	Fresh Certificate of Incorporation Consequent up on change of name issued by the Ministry of Corporate Affairs (GOI), for change in the name of EPC contractor from Enercon to WWIL	Dated 01/01/2013	PP
17	UNFCCC	Guidelines on the assessment of investment analysis	Version 05 (EB 62,Annex 05)	Others
18	TNEB	<ul style="list-style-type: none"> <li>Monthly statement issued by TNEB (for 19 WTGs)</li> <li>Monthly invoice raised by new PP to third party</li> </ul>	For month February 2016	PP
19	CEA	Central Electricity Authority (Installation and Operation of Meters) Regulations Notified on 17/03/2006 No.502/70/CEA/DP&D AmendmentsNotifiedon26/06/2010No.502/6/2009/DP&D/D-I ( <a href="http://www.cea.nic.in/reports/regulation/meter_reg.pdf">http://www.cea.nic.in/reports/regulation/meter_reg.pdf</a> )	Dated 17/03/2006	Others
20	TNEB	Power Purchase Agreement between TANGEDCO and Vaayu (India) Power Corporation Private Limited	Dated 15/09/2011 (for 24 MW)  Dated 30/03/2012 (for 26.4 MW)	PP
21	PP	Original registered IRR sheet	-	PP
22	PP	Benchmark sheet	-	PP
23	UNFCCC	Project design document form for CDM PAs	Version 10.1, dated 28/06/2017	Others
24	PP	Authorization letter from VREGPL to VICPL to manage CDM and GS activities for 19 WTGs of project activity	Dated 05/04/2017	PP

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

Table 1. CLs from this validation

CL ID	xx	Section no.	-	Date: DD/MM/YYYY
Description of CL				
NA				
Project participant response				Date: DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD/MM/YYYY

NA

Table 2. CARs from this validation

CAR ID	01	Section no.	D	Date : 25/02/2018
<b>Description of CAR</b>				
During the documents review and interviews of site personnel conducted during site visit, it is verified 19 WTGs of the project is owned by Vaayu renewable energy Godavari Pvt. Ltd, however as per the registered PDD, project is owned by Vaayu (India) Power Corporation Pvt. Please clarify how the project activity is implemented in line with the description provided in the registered PDD.				
<b>Project participant response</b>				<b>Date : 07/03/2018</b>
PP would like to clarify that the project activity consists of 63 WTGs which were commissioned and were operational under the ownership of “Vaayu (India) Power Corporation Pvt. Ltd.” as prescribed in the registered PDD. The same can be verified from the last five periodic verification and issuances conducted for the project.				
However, during the current monitoring period (i.e. Feb 2016 to Dec 2017) 19 WTGs of the project have got ownership changed from “Vaayu (India) Power Corporation Pvt. Ltd.” to “Vaayu Renewable Energy (Godavari)Pvt. Ltd.”.				
Therefore, PP has decided to request for a “Post Registration Change” to the registered project activity by addressing the ownership change. In this regard, a revised PDD is being submitted to DOE with required changes. Also, with the ownership change there have been different PPA terms for the 19 WTGs. Hence, additionality of the project (IRR) has been re-assessed with revised PPA tariff and same has been demonstrated and justified in the revised PDD. Project is additional with the revised PPA tariff of the transferred WTGs. Also, PP would like to confirm that there are no other physical changes to the project WTGs even after the ownership change; thus project capacity, design, baseline, methodology, monitoring plan all remain the same.				
<b>Documentation provided by project participant</b>				
Revised PDD, version 07, dated 01/03/2018				
Revised IRR sheets (Sheet 1 & 2), dated 01/03/2018				
<b>DOE assessment</b>				<b>Date:06/04/2018</b>
<ol style="list-style-type: none"> <li>1. Date of ownership change is not mentioned in the PDD and also the relevant documents pertaining to ownership change is not provided.</li> <li>2. It is not clear when the revised PPA is signed with third party and electricity supply to third party arises.</li> <li>3. Name of O&amp;M contractor (also WTGs supplier) is changed but the same is not updated in the relevant sections of the revised PDD.</li> <li>4. Please clarify with supporting if the applied revised tariff rate (for 19 WTGs) is valid for the remaining life time of the project activity and no escalation in tariff rate at all. Also clarify about the tariff rate, post term third party PPA.</li> <li>5. It is not clear if entering into an open excess merchant sale will make PP (VREGPL) eligible for RECs, please confirm the same and provide verifiable documentary evidence.</li> <li>6. It is not clear why sensitivity analysis over the capital cost is not conducted separately for both participants.</li> <li>7. Web link provided in the revised PDD for CEA database is not working.</li> </ol>				
<b>Project participant response</b>				<b>Date: 20/04/2018</b>

1. The date of first ownership change is considered as 27/02/2016 as this date was considered by TENGEDCO as effective date of name transfer which was also reflected in the JMR for the month of February 2016.
  1. The relevant documents pertaining to the ownership change have been submitted to DOE, which includes JMR copies, new PPA for the 19 machines and internal communication letter related to ownership change.
  - 2.
2. The PPAs for 19 WTGs were revised under third party sale mode; and were signed on 19<sup>th</sup> Nov 2015 (for 5.6 MW) and 3<sup>rd</sup> Nov 2016 (for 9.6 MW). The copies of the PPAs are submitted to DOE.
  - 3.
3. The information related to WTG supplier and O&M contractor are now updated in the PDD.
  - 4.
4. PP would like to clarify that tariff rate for the 19 WTGs signed under third party PPAs are valid for a period of 10 years (as prescribed under the clause no. 1.18). The terms of the PPAs can be extended after this supply period as per mutual agreement, as prescribed under the section 5 of the PPAs. However, the crediting period of the registered CDM project is valid till 18 July 2021 which is fixed. Hence any probable change in tariff after the expiry of the current contracting period (i.e. after Nov 2025) shall not be applicable for the CDM project activity.
  - 5.
5. As the new PPA arrangement is for third party power sale, hence project is eligible for REC benefits. However, REC benefits are not being availed, same is evident from the JMR and invoices.
  - 6.
6. As per UNFCCC clarification (Ref. No. AM\_CLA\_0223), the ownership change doesn't adversely affect on the additionality of a registered project activity. Under this clarification the Meth Panel has already clarified that if the full or part of the original PPA has changed and the project sells electricity at a different tariff rate at the time of validation, then the DOE shall establish that the input values would have materially changed and the latest values for the electricity price should be used. Whereas, it is clarified that the investment cost is not relevant in such cases of ownership change.
  - 7.
  8. Thus, sensitivity of the capital costs and other parameters are not considered in the revised investment analysis. Hence, only the change in tariff for the 19 WTGs (which are undergone ownership change) is material and same has been used to re-assess the investment analysis.
  - 9.
7. The weblinks for the CEA database are updated in the PDD. The same is operational now.

Documentation provided by project participant	
Revised PDD, version 08, 12/04/2018. Copies of PPA with revised tariff JMR & Invoices	
DOE assessment	Date: 26/4/2018

1. Ownership of 19 WTGs was changed from 27/02/2016 that is verified through the internal communications and JMR for the month of February 2016 indicating the name of new entity, found satisfactory, hence accepted.
2. The PPA for 19 WTGs were signed with third party in two parts first part for capacity 5.6 MW was signed on 19/11/2015 and second part on 03/11/ 2016 (for 9.6 MW).The same is verified through PPAs submitted by the PP ,found to be correct.
3. Name of O&M contractor (also WTGs supplier) is changed but the same is not updated in the relevant sections of the revised PDD. Open
4. Information about the tariff type (fixed or variable) is not provided transparently in the revised PDD. Open
5. As the new PPA arrangement is for third party power sale, hence project is eligible for REC benefits. However REC benefits are not availed by the project developer, this is verified through the relevant JMRs and invoices, hence accepted.
6. Due to ownership change and consequently tariff change ,the PP has reassessed the additionality for the 19 WTGs, updating the tariff rate in the original IRR sheet. The approach followed by the PP is in line with the UNFCCC clarification (Ref. No. AM\_CLA\_0223), that states “the ownership change does not adversely effect on the additionality of a registered project activity. Under this clarification the Meth Panel has already clarified that if the full or part of the original PPA has changed and the project sells electricity at a different tariff rate at the time of validation, then the DOE shall establish that the input values would have materially changed and the latest values for the electricity price should be used”, hence accepted.
7. The web links for the CEA database are updated in the PDD, found working. Closed.

<b>Project participant response</b>	<b>Date: 02/05/2018</b>
3. The change in name of the O&M Contractor (and the WTG supplier) has been updated in the revised PDD. The relevant sections are updated suitably.	
4. The tariff is fixed. The information about the tariff type has been provided on the revised PDD, please refer to the table “Assumption for Financial Model” under the section B.5 of the PDD.	
<b>Documentation provided by project participant</b>	
Revised PDD, version 08, 02/05/2018	
<b>DOE assessment</b>	<b>Date: 25/05/2018</b>
The PP has updated the name of O&M Contractor (and the WTG supplier) in the relevant sections of the revised PDD.	
Tariff rate for 19 WTGs is fixed, this information is updated in the revised PDD and revised IRR sheet.	
CAR #1 is closed.	

<b>CAR ID</b>	02	<b>Section no.</b>	D.7	<b>Date : 25/02/2018</b>
<b>Description of CAR</b>				
It is not clear whether new owner Vaayu renewable energy Godavari Pvt. Ltd wishes to avail CDM benefit for the purchased WTGs.				
Please clarify the relation between the entities Vaayu (India) Power Corporation Pvt. Ltd and Vaayu renewable energy Godavari Pvt. Ltd.				
As the part of project activity (19 WTGs) sold to new entity, please clarify why a separate analysis is not presented considering cash inflow for existing PP (Vaayu (India) Power Corporation Pvt. Ltd) to determine the impacts on additionality of the project for remaining lifetime of the project activity.				
<b>Project participant response</b>				<b>Date : 01/03/2018</b>



PP would like to clarify that the CDM benefits will be considered for the entire project activity as is the case with the registered PDD, thus both the owners Vaayu (India) Power Corporation Pvt. Ltd. (i.e. VIPCPL) and Vaayu Renewable Energy Godavari Pvt. Ltd. (i.e. VREGPL) shall avail CDM benefits; however the CDM project activity shall be represented by only the existing proponent, i.e. "Vaayu (India) Power Corporation Pvt. Ltd."

In this regard, an official communication letter was signed by both the parties at the time of ownership change, same will be submitted to DOE for reference.

VREGPL is a subsidiary entity of VIPCPL. This information is also included under the footnote #1.

A separate IRR assessment has been conducted to determine the impacts on project additionality due to the ownership change. In this regard, PP has reassessed the additionality for the 19 WTGs as well as for the 44 WTGs by changing the changed parameters in the registered IRR sheet. In both the cases, the project has been found additional as revised IRR values are still well below the benchmark. IRR sheets are submitted to DOE for further review and verification.

#### Documentation provided by project participant

Revised PDD, version 07, dated 01/03/2018

Revised IRR sheets (Sheet 1 & 2), dated 01/03/2018

#### DOE assessment

Date:06/04/2018

1. Please submit official communication letter to confirm that CDM benefits will be considered for the entire project activity as is the case with the registered PDD.
2. Please submit documentary evidence to clarify that VREGPL is a subsidiary entity of VIPCPL.
3. The PP has conducted separate IRR analysis for 19 WTGs transferred to new entity VREGPL considering revised tariff, however it is not clear why other input parameters are not revised to calculate the IRR.

#### Project participant response

Date:20/04/2018

1. The official communication letter (the authorization letter from VREGPL to VIPCPL) has been submitted to DOE which confirms that CDM benefits will be considered for the entire project activity and project shall be represented by VIPCPL as is the case with the registered PDD.
2. The Certificate of Incorporation and Shareholding patterns are submitted to DOE as evidence.
3. PP would like to refer to the CDM Clarification AM\_CLA\_0223. As per this clarification and in relation to the current project scenario, only the power tariff for the 19 WTGs is the materially changed input parameter for the project activity, hence other input parameters are not revised to reassess the IRR.

#### Documentation provided by project participant

- 1) Authorization letter from VREGPL to VIPCPL pertaining to the CDM & GS benefits (dated 5 April 2017)
- 2) COI & Shareholding Patterns of VREGPL
- 3) A certified extract/declaration copy from Director of VIPCPL which confirms the decision of ownership change of 19 WTGs. (dated 12<sup>th</sup> Oct 2015)

#### DOE assessment

Date: 26/04/2018

1. Authorization letter from VREGPL to VIPCPL pertaining to the CDM benefits is not submitted.
2. VREGPL is a subsidiary entity of VIPCPL, this information is verified through the Certificate of incorporation (Ref No-U40103MH2009PTC189693) and found satisfactory.
3. Following the approach outlined under Clarification AM\_CLA\_0223, the PP has reassessed the additionality for the 19 WTGs as well as for the 44 WTGs by changing the changed parameters in the original registered IRR sheet. However sensitivity analysis on tariff rate is neither conducted nor the outcome of analysis are provided in the revised PDD. Open

#### Project participant response

Date: 02/05/2018

Authorization letter is being re-submitted to DOE. PP would like to justify that – the tariff rate for the 19 WTGs signed under third party PPAs are valid for a period of 10 years (as prescribed under the clause no. 1.18). The terms of the PPAs can be extended after this supply period as per mutual agreement, as prescribed under the section 5 of the PPAs. However, the crediting period of the registered CDM project is valid till 18 July 2021 which is fixed. Hence any probable change in tariff after the expiry of the current contracting period (i.e. after Nov 2025) shall not be applicable for the CDM project activity. Therefore, no further sensitivity analysis has been conducted.

Documentation provided by project participant	
<ol style="list-style-type: none"> <li>1. Authorization letter, dated 05<sup>th</sup> April 2017.</li> <li>2. Certified extract/declaration copy from Director of VIPCPL confirming decision of ownership change of 19 WTGs, dated 12<sup>th</sup> Oct 2015.</li> <li>3. Revised PDD, ver 08, dated 02/05/2018</li> </ol>	
DOE assessment	Date: 25/05/2018
<p>The PP has submitted the requested documents, found to be satisfactory, hence accepted.</p> <p>CAR #2 is closed.</p>	

CAR ID	03	Section No.	D.6	Date:06/04/2018
Description of CAR				
<ol style="list-style-type: none"> <li>1. Since electricity generated by the 19 WTGs is being supplied to third party, hence please clarify why the monitoring aspects (source data/cross check process ect) of the parameters reported under section B.7.1 of the revised PDD are not updated in line with changes identified after ownership change.</li> <li>2. Single line diagram for metering arrangement provided in the registered PDD is not updated in the section B.7.3 of revised PDD to reflect the changes occurred after ownership change.</li> <li>3. Please clarify why the changes identified as PRC are not categorised along with the reason for each change under Appendix 7 of the revised PDD.</li> </ol>				
Project participant response				Date: 20/04/2018
<ol style="list-style-type: none"> <li>1. The relevant monitoring sections in the PDD have been updated to align them in line with the changes identified due to ownership change. Revised PDD, version 08 has been submitted to DOE for further review.</li> <li>2. The single line diagram presented under the section B.7.3 of the PDD has been updated suitably in line with ownership change.</li> <li>3. The Appendix 7 of the revised PDD has been updated and changes identified as PRC are now categorized along with their reasons. Please refer to the revised PDD, version 08, dated 12/04/2018.</li> </ol>				
Documentation provided by project participant				
Revised PDD, version 08, dated 12/04/2018				
DOE assessment				Date:26/04/2018
<ol style="list-style-type: none"> <li>1. Monitoring aspects (source data/cross check process ect) of the parameters reported under section B.7.1 of the revised PDD are not updated in line with changes identified after ownership change.</li> <li>2. Single line diagram for metering arrangement provided in the registered PDD is not updated in the section B.7.3 of revised PDD to reflect the changes occurred after ownership change.</li> <li>3. There are many corrections in the PDD, however the same are not listed with the reasons under Appendix 7 of the revised PDD.</li> </ol>				
CAR #3 is open.				
Project participant response				Date: 02/05/2018
<ol style="list-style-type: none"> <li>1. The monitoring aspects of the parameters under the section B.7.1 of the PDD have been revised in line with the ownership change. The revision has been incorporated in the PDD version 08, dated 02/05/2018.</li> <li>2. The single line diagram of the section B.7.3 of the PDD has been updated in line with the ownership change.</li> <li>3. The Appendix 7 of the PDD has been revised to include the list of corrections made in the PDD across all sections due to the ownership change.</li> </ol>				
Documentation provided by project participant				
Revised PDD, version 08, dated 02/05/2018				
DOE assessment				Date: 25/05/2018
<p>Monitoring aspects of the parameters under the section B.7.1 of the revised PDD are revised to reflect ownership change, found to be satisfactory.</p> <p>The single line diagram showing monitoring points is updated in section B.7.3 of the revised PDD, found to be appropriate.</p> <p>All the changes identified in the registered PDD are listed under Appendix 7 of the revised PDD.</p> <p>CAR #3 is closed.</p>				

<b>CAR ID</b>	04	<b>Section no.</b>	D.6	<b>Date :</b> 28/06/2018
<b>Description of CAR</b>				
<ol style="list-style-type: none"> <li>1. As per the clause 3 of "Guidelines on the Assessment of Investment Analysis" "<i>The period of assessment should not be limited to the proposed crediting period of the CDM project activity. Both project IRR and equity IRR calculations shall as a preference reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period</i>". In view of the above guidance please clarify how the reassessment of additionality for the part of project activity (19 WTGs transferred to new entity) is appropriate and in line with the guidelines.</li> <li>2. Please clarify why sensitivity analysis is not carried out, while reassessing the additionality, to determine the scenarios in which the project activity would pass the benchmark or become more favourable than the alternative.</li> <li>3. As verified through the revised PPA (for 19 WTGs), applicable tariff for the first 10 years has been clearly defined (tariff will be fixed during third party sales), but the same is unclear from the 11th year onwards, hence please clarify why tariff post end of third party sale agreement is not determined.</li> <li>4. Please clarify why source of data for parameter <b>EG<sub>PJ,y</sub></b> for 44 WTGs is changed.</li> <li>5. In the case of third party sale (for 19 WTGs), the State utility issued monthly statement to the PP that mentions the net electricity export by the project activity to the third party in a particular month and the PP raises the invoice to third party based on the monthly statement only. Hence please clarify how it is appropriate to cross check the monthly values of net electricity export through the invoice in such scenario.</li> <li>6. The changes identified as PRC as listed under Appendix 7 of the revised PDD are not categorised appropriately along with the reason for each change.</li> </ol>				
<b>Project participant response</b>				<b>Date :</b> 09/07/2018

1. PP would like to reconfirm that the re-assessment of the additionality for the 19 WTGs has been conducted over the technical lifetime of the project activity. Same can be verified from the P&L & Cash flow sheets of the IRR spreadsheets. However, in case of the new tariff for the 19 WTGs, the rate 5.25 Rs./kWh has been applied across the technical lifetime of the project which is because there is no indication of tariff after 10 years of the new PPA (i.e. from the 15<sup>th</sup> year in the p&l project sheet). And as per possible tariff options from 11<sup>th</sup> year onward (as demonstrated under the Tariff section under section B.5 of the PDD), 5.25 Rs./kWh is found to be the most conservative (i.e. the maximum possible tariff) tariff. Therefore, consideration of 5.25 Rs./kWh is a conservative approach. Thus, even though the crediting period of the project under CDM is limited to only 10 years, the IRR assessment has been conducted over the period of technical lifetime of the WTGs, i.e. 20 years. Therefore, additionality assessment is in line with the clause 3 of "Guidelines on the Assessment of Investment Analysis".
2. The sensitivity analysis for all the parameters has been performed both for 44 WTGs and 19 WTGs and scenarios have been demonstrated in the PDD.
3. PP would like to clarify that the tariff for the 19 WTGs from 11<sup>th</sup> year onward is not certain as current PPA for 19 WTGs are valid for 10 years. Therefore, PP has analyzed three possible scenarios to calculate applicable tariff after the completion of term (10 years) of third party sale agreement:- i) Fixed tariff as per TNERC (i.e. 3.39 INR/kWh), ii) Renewal of current PPA tariff (i.e. 5.25 INR/kWh) or iii) tariff determined as per "Cost + return on equity" approach (i.e. 3.59 INR/kWh). Out of all the options, 5.25 INR/kWh is found to be the most conservative approach; hence the same has been applied till the end of the technical lifetime of the project. This information has been reported under the tariff section of Section B.5 of the revised PDD.
4. The source of data for parameter **EG<sub>PJ,y</sub>** for 44 WTGs has not been changed, only the information has been revised to present it more distinctly and separately for 44 WTGs and 19 WTGs as per their current practices.
5. PP has revised the cross check mechanism for the 19 WTGs appropriately and reported in the PDD. Please refer to the revised PDD version 09, dated 07/07/2018.
6. The information related to the changes identified as PRC listed under Appendix 7 of the PDD are revised and categorized appropriately.

Documentation provided by project participant	
Revised PDD, version 09, dated 07/07/2018	
IRR sheet 02 (for 19 WTGs), version 02, dated 07/07/2018	
DOE assessment	Date: 31/07/2018

1. The PP has done reassessment of additionality for the part of project activity (19 WTGs transferred to new entity) over the technical lifetime of the project activity, found to be appropriate and in line with the "Guidelines on the Assessment of Investment Analysis", hence accepted.
2. Sensitivity analysis is carried out in the revised IDD sheet, while reassessing the additionality, found to be satisfactory, hence accepted.
3. Since the applicable tariff for the first 10 years has been clearly defined (tariff will be fixed during third party sales i.e. from February 2016 onwards), but the same is unclear from the 11<sup>th</sup> year onwards (from year 2027). Hence the PP has calculated the tariff, post end of third party sale agreement in line with the 'cost + return on equity (16.84%, pre-tax)' approach as mentioned in the TNERC tariff order, based on which commission calculates tariff and using assumptions that are valid to the project activity. As per this approach, the average tariff, post end of third party sale agreement, is 3.59 INR/kWh. The assessment team has checked and confirmed that maximum IRR as 11.48% of project activity comes out at tariff of 5.25 INR/kWh after 10 years of third party sale agreement. Hence the PP has considered the tariff rate as 5.25 INR/kWh post third party sale agreement to assess the additionality, this approach is found to be conservative, hence accepted.
4. The PP has updated the source of data for the parameter  $EG_{PJ,y}$  appropriately in the revised PDD section B.7.1, hence accepted.
5. As per the proposed revisions in the monitoring plan in the revised PDD, in the case of third party sale (19 WTGs), the monthly values of net electricity exported by project activity will be compared with the monthly electricity generation by the project activity recorded through the LCS meter fitted at the controller panel of each WEC. Moreover the net electricity export value as mentioned in the monthly statement (without discounting wheeling & banking of electricity), issued by the state utility, will be used for emission reduction calculations. This approach is found to be satisfactory hence accepted.
6. The changes identified as PRC as listed under Appendix 7 of the revised PDD are categorised appropriately, hence accepted.

CAR #4 is closed.

CAR ID	05	Section No.	E.3	Date:	18/09/2018
Description of FAR					
<ol style="list-style-type: none"> <li>1. In section B.7.1 of the PDD, it is indicated that the parameter <math>EG_{PJ,y}</math> for 44 WTGs of VIPCPL and 19 WTGs of VREGPL are sourced separately from monthly generation statement, whereas it is observed that there is only one cluster meter "X1" monitoring both 44WTGs and 19WTGs in the line diagram of B.7.3 of the revised PDD. The PP is requested to further substantiate how the power generation from 44WTGs and 19WTGs are separately monitored and the power generation by each of them is determined.</li> <li>2. Please clarify how the cross checking of the power generation from 19WTGs against the local control system (LCS) are in line with the applied methodology ACM0002 v12, where it is required that the meter readings needs to be cross checked against the document of sold electricity.</li> <li>3. As per the revised PDD(page 36),it is mentioned that the invoices raised by the PP to JK Tyre &amp; Industries Ltd is considered not appropriate to be cross check with the values in the monthly generation statement by the grid company. However, under parameter <math>EG_{export,y}</math>, <math>EG_{import,y}</math> and <math>T_e</math>, (i.e. page 37-39 of revised PDD), the value can be crosschecked from the invoices raised to JK Tyre &amp; Industries Ltd. against the net electricity supplied and only the value of net electricity export will be compared with LCS data as explained under the parameter <math>EG_{PJ,y}</math>. The PP is requested to clarify the above inconsistency and clearly state in the revised monitoring plan, how the cross check of power generation of 19 WTGs will be conducted.</li> </ol>					
Project participant response					Date:
					03/10/2018

1. PP would like to clarify that as per prevailing practice at Tamil Nadu, there are dedicated metering systems for each WTG (or sometime for a group of WTGs) at generation end and bulk metering system at receiving end based on which TNEB/TANGEDCO estimates net exports for each client and monthly generation statements are produced.

Under the monitoring plan, the term "X1" is the representation of series of dedicated and group meters attached to the total 63 WTGs of the project. Erstwhile entire 63 WTGs were under the direct ownership of VIPCPL, hence X1 represented as the single cluster of dedicated meters for VIPCPL. However, during post registration change, 19 WTGs were taken under the ownership of VREGPL; therefore this representation has been changed, whereas physical status of the evacuation system, actual practice of metering and method of calculating net export to generate monthly statement all remain the same. The 44WTGs of VIPCPL continues to supply electricity to TNEB for which the monthly statement for WTGs is issued separately as per the HTSC nos. of the machines. The 19 WTGs of VREGPL supplies power to the third party via wheeling for which monthly statements are also issued by TNEB/TANGEDCO separately as per the HTSC nos. of the machines.

The single line diagram has been modified as per the post registration changes and revised version (as included above) presents the current scenario. Also, the information under the section B.7.3 and in the tables under the section B.7.1. of the PDD have been updated with the inclusion of above details and explanation.

Thus, PP would like to establish the fact that the power generation from 44WTGs and 19WTGs are separately monitored at authority level and monthly statements are also generated separately; and these monthly statements are the basis of net electricity generation to be accounted for emission reduction purpose.

2. PP would like to clarify that the cross checking of the power generation from 19 WTGs is considered from the sales invoice in between VREGPL and Third party based on which electricity sale can be confirmed from the 19 WTGs. However, the invoice contains cumulative values whereas monthly statement gives values of the WTGs (i.e. w.r.t. their HTSC nos.). Therefore, in order to establish a proper cross checking method it has been proposed that the total monthly value of net export calculated from monthly statement shall be cross checked with the monthly invoice raised to third party by VREGPL.
3. PP has revised the descriptions under the page no. 36 and 37-39 in order to maintain consistency in information provided for cross-checking mechanism of net electricity for the 19 WTGs. Please refer to the revised PDD.

<b>Documentation provided by project participant</b>	
Revised PDD, Version 10, dated 03 Oct 2018	
<b>DOE assessment</b>	<b>Date: 25/10/2018</b>

1. There are separate dedicated meter has been installed for particular WTG or group of WTGs at 33 kV metering points (generation end); the assessment has physically verified the same during the site visit. All the WTGs (i.e. 44 WEGs by VIPCPL and 19 WEGs by VREGPL) are further connected to the WWIL pooling substation at Pillayarkulam (110 kV bulk metering point). The bulk metering point at WWIL substation having one main meter and check meter. It is to be noted that the project activity WTGs and non-project WTGs are connected to the bulk metering point, hence the net electricity supplied to the grid/third party by project activity( at 110 kV metering point) is calculated using apportioning process i.e after adjusting the transmission losses to the generation recorded at 33 kV metering point.  
Post apportioning, TANGEDCO issues "Monthly statement of electricity generation" issued by TANGEDCO that mentions the electricity imported, electricity exported, transmission losses and net electricity supplied by all the WTGs of project activity at the sub-station. The monthly statement issued by TANGEDCO for each WTG indicates the HTSC number and ownership of the respective machine, hence in case third party sale electricity generated and supplied by the 19 WEGs by VREGPL could be evidently monitored through the existing metering arrangement as described in the revised PDD.
2. In case of third party sale invoicing will be done on the basis of electricity bill raised by state utility to third party. It is noted that the electricity bill raised by the state utility to the third party will provide the value of cumulative electricity consumption (from other sources and from project activity as well) in a particular month. In the case of third party sale, the State utility issued monthly statement to the PP that mentions the net electricity export by the project activity to the third party in a particular month and the PP raises the invoice to third party based on the monthly statement only. Hence in this scenario monthly values of net electricity export will be cross checked through the invoices raised to the third party by the PP. In addition, in the case of third party sale (19 WTGs), the monthly values of net electricity exported by project activity will be cross checked with the monthly electricity generation by the project activity recorded through the LCS meter after subtracting the electricity import and transmission losses. Moreover the net electricity export value as mentioned in the monthly statement (without discounting wheeling & banking of electricity), issued by the state utility, will be used for emission reduction calculations. This approach is found to be appropriate .hence accepted.
3. The applied methodology does not require cross check of other parameters e.g electricity export/ import or transmission losses instead only cross checking of net electricity exported by the project activity is required. Therefore the PP has modified the relevant information under section B.7.1 of the revised PDD, found to be satisfactory and in line with the methodology, hence accepted.

CAR #5 is closed.

**Table 3. FARs from this validation**

FAR ID	xx	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				

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Document information

Version	Date	Description
02.0	31 October 2017	Revision to align with the requirements in the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory		
Document Type: Form		
Business Function: Registration		
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