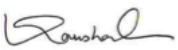
Validation report form for CDM project activities

(Version 02.0)

VALIDATION REPORT	
Title of the project activity	9.5 MW wind energy based power generation by Interocean Group
Version number of the validation report	01
Completion date of the validation report	25/04/2017
Version number of PDD to which this report applies	03.1
Date when PDD was uploaded for global stakeholder consultation	13/02/2016 to 13/03/2016
Project participant(s)	Interocean Shipping (I) Pvt. Ltd.
Host Party	India
Estimated annual average GHG emission reductions or net removals in the crediting period (tCO2e)	18,045 tCO2e
Sectoral scope(s) and selected methodology(ies)	Mandatory sectoral scope(s) as per EB 88, Annex 4 Sectoral Scope 01: Energy industries (renewable - / non-renewable sources) AMS-I.D., version 18 “Grid connected renewable electricity generation”
Name of DOE	KBS Certification Services Private Limited (KBS)
Name, position and signature of the approver of the validation report	 Kaushal Goyal Managing Director

SECTION A. Executive summary

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The proposed project activity is a bundle project activity involves installation and operation of 5 number of Wind Turbine Generators (WTGs) having individual capacity 3*2000kW (G97) manufactured and supplied by Gamesa Wind Turbines Pvt. Ltd, 1*2000kW manufactured and supplied by Inox Wind, 1*1500kW manufactured and supplied by Regen with aggregated installed capacity of 9.5 MW in Madhya Pradesh state of India. The proposed project activity is promoted by Interocean Shipping (I) India Pvt. Ltd., Interocean Shipping Company and Interocean Projects Pvt. Ltd.

The project activity is a bundled project activity developed by three different project promoters namely, Interocean Shipping (I) India Pvt. Ltd., Interocean Shipping Company and Interocean Projects Pvt. Ltd.. Interocean Shipping (I) India Pvt. Ltd. is the focal point of communication with UNFCCC, the same was validated from the bundling agreement/44/ signed among the PPs and also from HCA/05/, MoC/06/.

The project activity has been undertaken to harness the available wind power potential to generate clean power in Madhya Pradesh. The project activity will install and operate 5 number of sophisticated, state-of art Wind Turbine Generators (WTG) consisting of 4*2000kW and 1*1500kW with aggregated installed capacity of 9.5 MW. The project will generate electricity which will be sold to state electricity board of Madhya Pradesh states of India. All the WTGs of proposed project activity are connected to NEWNE regional grid of India. The project activity will help in green house gas (GHG) emission reduction by using renewable resources (wind energy) for generating power which otherwise would have been generated using grid mix power plants, which is dominated by fossil fuel based thermal power plants. The project activity is a green field project aimed at utilising wind to produce power.

The project activity WTGs will be installed as given below:

Unique ID	Village	District	State	Owner
Gch119N	Bardu	Dewas	Madhya Pradesh	Interocean Shipping (I) Pvt. Ltd.
Gch235N	Jamoniya	Dewas	Madhya Pradesh	Interocean Shipping Company
Rh06	Kheda Dhamnar	Mandsaur	Madhya Pradesh	Interocean Shipping Company
R22	Guradiyadas	Dewas	Madhya Pradesh	Interocean Shipping Company
NPY-P-74	Nipaniya	Mandsaur	Madhya Pradesh	Interocean Projects Pvt. Ltd.

Interocean Shipping (I) Pvt. Ltd. has commissioned KBS to perform the validation of the proposed CDM project activity:

Project Title:	9.5 MW wind energy based power generation by Interocean Group
Methodology Applied:	AMS-I.D., version 18 “Grid connected renewable electricity generation”
Sectoral Scopes:	Mandatory sectoral scope(s) as per EB 88, Annex 4: 01
Validity of methodology/ies (for RfR):	Valid from 28 Nov 14 onwards

Objective:

Interocean Shipping (I) Pvt. Ltd. has commissioned KBS to perform the validation of the project “9.5 MW wind energy based power generation by Interocean Group” with regard to the relevant requirements for Clean Development Mechanism (CDM) project activities.

The purpose of validation is to ensure a thorough, independent assessment of proposed CDM project activities submitted for registration as a proposed CDM project activity against the applicable CDM requirements.

In particular, the project's baseline, the monitoring plan (MP) and the project’s compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. The validation is seen as

necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reduction (CER).

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

Scope:

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the latest version of CDM Validation and Verification Standard, Project Cycle Procedure and Project Standard, Kyoto Protocol requirements and UNFCCC rules.

Internal Quality Control:

Following the completion of the assessment process and a recommendation by the assessment team, the validation opinion prepared by Team Leader is independently reviewed by internal Technical Reviewer. TR reviews if all the KBS procedures have been followed and all conclusions are justified in accordance with applicable standards, procedures, guidance and CDM decisions. The TR either is qualified for the technical area within the CDM sectoral scope(s) applicable to project activity or is supported by qualified independent technical expert at this stage.

The Technical Reviewer will either accept or reject the recommendation made by the assessment team. The findings can be raised at this stage and PP must resolve them within agreed timeline.

The opinion recommended by Technical Reviewer will be confirmed by Manager Technical & Certification and finally authorized by the Managing Director on behalf of KBS as final validation opinion. The Technical Reviewer and Manager T&C maybe be same person.

Major milestone in validation:

Validation Contract	11/02/2016
Publication of PDD	13/02/2016
On site Validation	16/07/2016
Draft Validation Report	28/03/2017
Final Validation Report	25/04/2017

Conclusion:

The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., on site visit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidances and CDM decisions.

The review of the project design documentation and the subsequent follow-up interviews have provided KBS with sufficient evidence to determine the project's fulfillment of all the stated criteria. In our opinion, the project meets all applicable UNFCCC requirements for the CDM.

- ☒ Will be recommended to the CDM Executive Board with a request for registration
- ☐ Is not recommended for registration

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 review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader, Financial Expert, Local Expert and Technical expert (TA 1.2)	IR	Sharma	Chetan Swaroop	Central office	√	√	√	√

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 and TR expert (TA 1.2)	IR	Kandari	Sanjay	Central
2.	Manager Technical & Certification	IR	Kandari	Sanjay	Central

SECTION C. Means of validation

C.1. Desk review

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The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., on site visit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and CDM decisions.

All the documents used for arriving validation conclusion are listed in Appendix 03 and referenced accordingly in validation report.

C.2. On-site inspection

Duration of on-site inspection: 16/07/2016				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	• Approval of project activity from Host Party and local clearances • Baseline • Project boundary; • Operational lifetime of the project activity, • Monitoring plan (feasibility of monitoring arrangements described in PDD, QA/QC procedures, responsibility of implementation of monitoring plan, data recording.) • Local Stakeholder Consultation process	Madhya Pradesh, India	16/07/2016	Chetan Swaroop Sharma (Team Leader, TA Expert 1.2, Local Expert and Financial Expert)

C.3. Interviews

No.	**Interviewee**			**Date**	**Subject**	**Team member**
	Last name	**First name**	**Affiliation**			
1.	Dhote	Subhesh	Gamesa Wind Turbines Private Limited	16/07/2016	Project design, Local Stakeholder Consultation, Monitoring plan, Project Technology, project boundary, operational lifetime of the project activity	Chetan Swaroop Sharma
2.	Swain	Bidhan	Gamesa Wind Turbines Private Limited	16/07/2016		
3.	Tadav	Ranjeet	Gamesa Wind Turbines Private Limited	16/07/2016		

C.4. Sampling approach

>> Not applicable.

C.5. Clarification requests, corrective action requests and forward action requests raised

Areas of validation findings	**No. of CL**	**No. of CAR**	**No. of FAR**
Global stakeholder consultation			
Approval	00	01	00
Authorization	00	00	00
Contribution to sustainable development	00	00	00
Modalities of communication	00	01	00
Project design document	00	01	00
Description of project activity	02	03	00
Application of selected baseline and monitoring methodology and selected standardized baseline			
- Applicability of methodology and standardized baseline	01	00	00
- Deviation from methodology	00	00	00
- Clarification on applicability of methodology, tool and/or standardized baseline	00	00	00
- Project boundary	00	01	00
- Establishment and description of baseline scenario	00	00	00

- Demonstration of additionality	01	00	00
- Emission reductions	00	00	00
- Monitoring plan	01	00	00
Duration and crediting period	00	01	00
Environmental impacts	00	00	00
Local stakeholder consultation	00	01	00
Prior intimation to UNFCCC and DNA	01	00	00
Total	06	09	00

SECTION D. Validation findings

D.1. Global stakeholder consultation

Means of validation	The Project Design Document for this project was made available on (https://cdm.unfccc.int/Projects/Validation/DB/Q9DEEY657KA1LVYINLD5MNC16H9BCJ/view.html) for comments from 13/02/2016 – 13/03/2016 in accordance with the CDM PCP, version 09.
Findings	Nil
Conclusion	No comments received.

D.2. Approval

Means of validation	The project activity is a unilateral CDM project which involves project participant, i.e. Interocean Shipping (I) Pvt. Ltd. from host party, India. KBS confirms that it has entered into a contractual agreement with 'Interocean Shipping (I) Pvt. Ltd.' for performing the validation. The host party for the project activity is India, which has ratified the Kyoto Protocol on 26/08/2002. The Designated National Authority (DNA) of India is "Ministry of Environment, Forest and Climate Change". The DNA of India has issued a Letter of approval, Letter No: 4/7/2016-CC (LoA) dated 08/02/2017 /05/ for the project activity. The information of the DNA has been confirmed by the validation team against the relevant information on the UNFCCC CDM website (http://cdm.unfccc.int/DNA/index.html) The table given below summarizes the project participant(s) and party (ies) involved.

Project participant	Interocean Shipping (I) Pvt. Ltd.
Parties Involved	India (host)
Project activity title	9.5 MW wind energy based power generation by Interocean Group
Approval	Yes
LoA received	Yes
Date of LoA	08/02/2017
Reference of document	Reference No. 4/7/2016-CC
LoA received from	Project Participant
Validation of authenticity	The assessment team has reviewed other LoAs issued by the DNA of India and confirmed the authenticity of signature and content of the LoA. The assessment team does not doubt the authenticity of the LoA.
Validity of LoA	Yes

Findings	CAR#01 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	The LoA was reviewed and confirmed the following:

	• India is a party to the Kyoto protocol; • CDM is a voluntary participation; • the project under validation will contribute to the sustainable development of Iran; • The project title is in line with the title mentioned under section A.1 of the PDD. LoA has been verified to be unconditional with respect to all the above confirmed aspects. The validation team has confirmed that the LoA has met the requirements of §44-48 of the VVS V9. The validation of approval has been done on the basis of § 44-48 of VVS V9 and validation team confirms that the proposed project activity meets the requirement of § 49 of VVS V9.

D.3. Authorization

Means of validation	The host Party for the proposed project activity is India, fulfils the participation requirements, having ratified the Kyoto Protocol on the 26/08/2002 and established National Clean development Mechanism Authority, "Ministry of Environment, Forest and Climate Change" as its DNA. This has been confirmed from the link (http://maindb.unfccc.int/public/country.pl?country=IN) The project participant listed in the section A.3 of the PDD/2/ is Interocean Shipping (I) Pvt. Ltd. is the project participant in the proposed CDM project activity.
Findings	CAR#01 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	The validation team confirms participation of Interocean Shipping (I) Pvt. Ltd. in the project activity has been approved by DNA of India, which is a Party to the Kyoto Protocol. The validation team confirms that a) The participation of project participants have been approved/ authorized by the DNA of host Party (India) b) The participation has been confirmed in the LoAs itself, which contains the name of the PPs to which it is issued. c) 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 § 53-55 of VVS V9 and validation team confirms that the proposed project activity meets the requirement of § 56 of VVS V9.

D.4. Contribution to sustainable development

Means of validation	The host Party's DNA has confirmed the contribution of the project to the sustainable development of the host Party (India) through a letter of approval (or HCA) dated 08/02/2017/05/.
Findings	Nil
Conclusion	The validation of project contribution to sustainable development has been done on the basis of § 58 of VVS and validation team confirms that the proposed project activity meets the requirement of § 59 of VVS.

D.5. Modalities of communication

Means of validation	The modalities of communication (MoC) for the given project activity, signed on 15/03/2017/06/ was received from PP. As required in procedures for Modalities of Communication/6/ between project participants and the Executive Board, the validation team has verified that the name of Mr. Shashikant Verma as authorized signatory and Mr. Arjun Saigal as alternate authorized signatory from Interocean Shipping (I) Pvt. Ltd. for future communications related to corresponding scope of authority with UNFCCC. The Corporate Identity of all the authorised signatory in the Modalities of Communication (MoC) statement has been checked from the Written confirmation from the PP /06/ 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 F-CDM-MOC form and as per requirement of para 61(a) of VVS version 09.0/23/. The validation team was also able to check that MoC was prepared using latest version of MoC form available on UNFCCC website i.e. Version-02.3. The project participant's authorized signatories signing the F-CDM-MOC correspond to the project participant's authorized signatories included in F-CDM-MOC, annex 1.
Findings	CAR#02 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	The assessment team confirms that: a) The MoC is correctly filled and duly authorised using the latest CDM-MOC-FORM version 02.3. b) The project participants' authorized signatories signing the F-CDM-MOC correspond to the project participants' authorized signatories included in F-CDM-MOC, annex 1. c) The MoC is directly received from the PP. d) The specimen signature, designation and name of the authorised personals are cross checked from the written confirmation from PP /06/ confirming the specimen signature, name and designation of authorised personnel. e) The modalities of communication statement is correctly filled and including the specimen signature of authorised signatory. The validation of MoC has been done on the basis of § 61-67 of VVS V9 and validation team confirms that the proposed project activity meets the requirement of VVS, version 09.

D.6. Project design document

Means of validation	The validation team validated that the Project Design Document is based on the currently valid CDM-SSC-PDD-FORM version 8.0/27/ and is correctly filled in accordance with the Instructions for filling out the project design document form for CDM project activities **Assessment of variation between webhosted PDD and final PDD.**

Key revisions between the final PDD against the first version published for the international stakeholder consultation

PDD Section no.	Brief description of the changes	Indicate relevant finding
A.1	Name of project promoter corrected	*CAR 05*
B.1	Latest available version of the applicable tools used	*CAR 06*
B.2	Applicability conditions of AMS-I.D. Version 18.0 are included	*CL 01*
B.3	*Project boundary diagram revised*	*CAR 07*
B.7.1	Changes in ex-post parameter	*CL 04*
C.2.2	Start date of crediting period revised to be realistic	*CAR 08*
E.1	LSC information elaborated	*CAR 09*
PDD	PDD filled in the latest available form for SSC project version 08	*CAR 04*

Findings	CL01, CAR 04, CAR 05, CAR 06, CAR 07, CAR 08 and CAR 09 were raised and successfully closed.
Conclusion	The assessment team confirms that the PDD is being prepared in accordance with the latest valid template and instructions from the CDM Executive Board available on the UNFCCC CDM Website.

	The validation team confirms that the proposed project activity meets the requirement of § 69 of VVS V9 and the PDD is completed using the latest version of the PDD form appropriate to the type of project activity.

D.7. Description of project activity

Means of validation

The proposed project activity is a bundle project activity involves installation and operation of 5 numbers of Wind Turbine Generators (WTGs) as given below with aggregated installed capacity of 9.5MW in Madhya Pradesh state of India which is less than 15 MW limit of the type I small scale projects. This is also in line with the project standard version 09, para 99 /23/. The validation team confirms that the project activity is eligible as small-scale CDM project activity and can use the simplified baseline methodology.

No. of WTGs	Unit Capacity	Type	Manufacturer and supplier
3	2000kW	G97 Gamesa	Gamesa Wind Turbines Pvt. Ltd
1	2000kW	DF 2000 Inox	Inox Wind Infrastructures Services Limited
1	1500kW	V87 Regen	ReGen Infrastructure & Services Pvt. Ltd.

The proposed project activity is promoted by Interocean Shipping India Pvt. Ltd., Interocean Shipping Company and Interocean Shipping Projects Pvt. Ltd.

The technical specifications of the equipment and composition of the project mentioned in section A.3 of the PDD/2/ has been checked during the onsite assessment/22/ and cross-verified from the Contract /12-16/ signed between PP and Manufacturer & supplier for the project activity WTGs. The power generated from the project activity is to be supplied to DISCOM i.e. grid, the power purchase agreement/19/ signed between the PP and DISCOM was checked to confirm that the project activity is sale to grid. The geographical coordinates of the project activity (all the WTGs) as mentioned in the PDD/2/ were cross checked with Google Map and at the project site through a GPS enabled device, the same was found to be consistent.

Unique ID	Village	District	State	Owner
Gch119N	Bardu	Dewas	Madhya Pradesh	Interocean Shipping (I) Pvt. Ltd.
Gch235N	Jamoniya	Dewas	Madhya Pradesh	Interocean Shipping Company
Rh06	Kheda Dhamnar	Mandsaur	Madhya Pradesh	Interocean Shipping Company
R22	Guradiyadas	Dewas	Madhya Pradesh	Interocean Shipping Company
NPY-P-74	Nipaniya	Mandsaur	Madhya Pradesh	Interocean Projects Pvt. Ltd.

The project will generate approximately 18470 MWh of electricity per annum, which will be sold to state electricity board of Madhya Pradesh states of India. All the WTGs of proposed project activity are connected to NEWNE regional grid.

As per final version of PDD/02/, the project's starting date is 27/02/2015. In accordance of the latest version of the Glossary of CDM terms /35/ "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins". Validation team has checked the start date proof i.e. first PO for WTG R22 /12/ and found OK. This is the earliest date at which the implementation of the project activity begins, Validation team has confirmed the same from the site visit interview and also from the project timeline mentioned in the section B.5 of the final PDD /02/.

	The operational lifetime of the project activity has been taken as 25 years which was cross-checked from the MPERC tariff order applicable for the wind projects /40/ and found consistent; which specifies the same operational lifetime as 25 years. The PP has chosen a renewable crediting period of 7*3 years for the project activity. The project is estimated to result in 126,315 tCO_2e emission reduction over first renewable crediting period of 7 years with the annual average of 18,045 tCO_2e emission reductions. As mentioned in section A.5 of the PDD/2/, no ODA or public funding was received by the project activity; this was confirmed by interview of the company's management. The PP and the responsible personnel were interviewed during the site visit/22/ to obtain relevant information on the trainings and maintenance efforts, by the validation team. In addition, the validation team has cross-checked with the UNFCCC website, CDM Pipeline by UNEP and has not identified any other small-scale project activity being developed by the project owner. Therefore, the proposed project is not deemed to be a de-bundled component of a large project activity in accordance with Tool for Assessment of debundling for small-scale project activities, version 4 /34/.
Findings	CL#02 and CL#05 were raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	The assessment team confirms that The validation team conducted document review and onsite interviews/ inspection of this project activity. Based on the same the validation team confirms 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/02/ satisfies the requirements of §77 of VVS V9.The details of the site visit conducted by the validation team can be referred in section C.3 of this validation report.

D.8. Application of selected baseline and monitoring methodology and selected standardized baseline

D.8.1. Applicability of methodology and standardized baseline

Means of validation

The project activity is a Greenfield project and the installed rated capacity of the project is 9.5 MW. The methodology AMS-I.D., 'Grid connected renewable electricity generation' version 18/26/ has been applied to the project activity. The validation of applicability criteria for the selected methodology is discussed below*;*

S. No.	Criteria as per AMS-I.D. Version 18	Validation Opinion
1	1. 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 b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	The project activity is wind based power generation project with aggregated installed capacity of 9.5 MW that will sale the generated renewable electricity to NEWNE regional grids. The same is verified during site visit interview and

<table>
<tr><td></td><td></td><td></td><td>document review /11/, /12-16/, /17/ and /19/. Hence this paragraph of methodology is applicable.</td></tr>
<tr><td></td><td>2</td><td>Illustration of respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies is included in the appendix.
<table>
<tr><th></th><th>Project type</th><th>AMS-I.A</th><th>AMS-I.D</th><th>AMS-I.F</th></tr>
<tr><td>1</td><td>Project supplies electricity to a national/regional grid</td><td></td><td>√</td><td></td></tr>
<tr><td>2</td><td>Project displaces grid electricity consumption (e.g. grid import) and/or captive fossil fuel electricity generation at the user end (excess electricity may be supplied to a grid)</td><td></td><td></td><td>√</td></tr>
<tr><td>3</td><td>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</td><td></td><td>√</td><td></td></tr>
<tr><td>4</td><td>Project supplies electricity to a mini grid[1] system where in the baseline all generators use exclusively fuel oil and/or diesel fuel</td><td></td><td></td><td>√</td></tr>
<tr><td>5</td><td>Project supplies electricity to household users (included in the project boundary)</td><td>√</td><td></td><td></td></tr>
</table></td><td>The project activity is wind based power generation project with aggregated installed capacity of 9.5 MW that will sale the generated renewable electricity to NEWNE regional grids.

The same is verified during site visit interview and document review /11/, /12-16/, /17/ and /19/. Hence AMS-I.D. is applicable to the project activity.</td></tr>
</table>

[1] The sum of installed capacities of all generators connected to the mini-grid is equal to or less than 15 MW.

		located in off grid areas	
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); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s).	The project activity is installation of a Greenfield project activity. PP doesn't have any WTG at the project site prior to the implementation of the project activity. The information was confirmed during the site visit /22/ and through validation of contract/25/ and power purchase Agreement /19/.
4	Hydro power plants with reservoirs[2] that satisfy at least one of the following conditions are eligible to apply this methodology: • a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir; • b) The project activity is implemented in an existing reservoir[3], 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/m2; • c) 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/m2.	The project activity is a wind power plant. Hence, not applicable. The same was confirmed during the site visit/22/.
5	If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co fires fossil fuel[4], the capacity of the entire unit shall not exceed the limit of 15MW.	The project activity is only 9.5 MW Wind based renewable electricity generation project. It does not include any non-renewable unit and co-firing system. The same is verified during site visit interview and document review /11/, /12-16/, /17/ and /19/.

[2] A reservoir is a water body created in valleys to store water generally made by the construction of a dam.

[3] A reservoir is to be considered as an .existing reservoir. if it has been in operation for at least three years before the implementation of the project activity.

[4] Co-fired system uses both fossil and renewable fuels.

			Hence this applicability condition is not applicable.
	6	Combined heat and power (co-generation) systems are not eligible under this category.	The project activity does not involve combined heat and power generation system as it is only a wind power project. The same is verified during site visit interview and document review /11/, /12-16/, /17/ and /19/. Hence this applicability condition is not applicable.
	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[5] from the existing units.	The assessment team validated during site visit that the project activity is a Greenfield project and it is not a capacity expansion. The same is verified during site visit interview and document review /11/, /12-16/, /17/ and /19/. Hence this applicability condition is not applicable.
	8	In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	As project activity is a green field wind power project therefore this criteria is not applicable.
	9	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.	As project activity is a green field wind power project therefore this criteria is not applicable.

[5] Physically distinct units are those that are capable of generating electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility. For example, the addition of a steam turbine to an existing combustion turbine to create a combined cycle unit would not be considered "physically distinct".

	10	In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	As project activity is a green field wind power project therefore this criteria is not applicable.
Findings	CL#01 was raised and closed successfully. Please refer Appendix 4 of the report for details.		
Conclusion	The validation team confirms that a) The applicability conditions of the Approved small scale methodology AMS-I.D. version 18 is appropriately described in PDD. b) The validation of each relevant applicability conditions is described above. c) The applied methodology is applicable in the context of the proposed CDM project activity. d) The baseline and monitoring methodology selected by the project participant is the valid version approved by the Board. e) The project participant has applied the latest applicable version of tools referred by the methodology.		

D.8.2. Deviation from methodology

Means of validation	No deviation applied.
Findings	Refer above
Conclusion	Refer above

D.8.3. Clarification on applicability of methodology, tool and/or standardized baseline

Means of validation	No clarification applied/sought.
Findings	Refer above
Conclusion	Refer above

D.8.4. Project boundary

Means of validation	As per applied methodology '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'. The project boundary includes the project activity, sub-station, all the power plants connected physically to the NEWNE grid and regional grid system (NEWNE Grid of India).
Findings	CAR#07 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	The assessment team confirms that: (a) The project boundary included in the PDD/2/ is correct based on the physical on site visit and review of relevant documents viz. and signed PPA /19/. (b) The identified project boundary and selected sources and gases are justified in the context of the project activity.

D.8.5. Establishment and description of baseline scenario

Means of validation	The proposed CDM project activity is the installation of a new grid-connected wind power plant, therefore in line with the applied baseline methodology AMS-I.D. Version 18 /26/, the baseline scenario for the project activity is: "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." as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system" Version 05.0 /32/. The combined margin emission factor has been calculated on the basis of build margin and operating margin published by Central Electricity Authority (CEA) of India (refer CO2 Baseline Database version 10/20/). The calculation procedure of

	combined margin emission factor and baseline emissions is discussed in the next section of this report.
Findings	No CAR/CL raised.
Conclusion	In the opinion of the validation team, the approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and (a) All the assumptions and data used by the project participants are listed in the PDD/2/, including their references and sources; (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD/2/; (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable; (d) Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD/2/ (in Section B.5); (e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

D.8.6. Demonstration of additionality

Means of validation

Additionality of the Project has been demonstrated by applying Methodological tool "Demonstration of Additionality of Small Scale Project Activities" (Version 10.0); a simplified baseline and monitoring methodology listed in Appendix B may be used for a small-scale CDM project activity if the project participant is able to demonstrate to a designated operational entity that the project activity would otherwise not be implemented due to the existence of one or more barrier(s) listed in Guidelines on the demonstration of additionality for small-scale project activities, Version 10.0 as follows: • Investment barrier • Technological barrier • Barrier due to prevailing practice • Other barriers
The PP has applied the investment barrier to the project activity. Further, a benchmark analysis was conducted.

Prior consideration of CDM:

The start date of the bundled project activity is 27/02/2015 based on the earliest purchase order /12/ for WTG R-22. Validation team confirmed this is the earliest action among all the investors wherein the PP committed to expenditure in the project activity.

The PDD was web-hosted for global stakeholder's comments from 13/02/2016 to 13/03/2016. Since the start date of the project activity is before the PDD was web-hosted and also after 02/08/2008, the project developer is required to provide evidence of the prior consideration of the CDM in accordance with the para 113 and 115 of the VVS 9.0 /23/.

Further, the prior consideration has been assessed for each sub-bundle in the project activity. Below table presents the summary of the start date of each sub-bundle and how its prior consideration has been checked.

S.No.	Unique ID	Project Investor	Start Date	Evidence	Date of intimation to UNFCCC	Date of intimation to DNA
1	Gch119N	Interocean Shipping (I) Pvt. Ltd.	28/11/2015	Purchase order	05/12/2015	05/12/2015
2	Gch235N	Interocean Shipping Company	21/11/2015	Purchase order	05/12/2015	05/12/2015
3	Rh06	Interocean Shipping Company	05/12/2015	Purchase order	05/12/2015	05/12/2015
4	R22	Interocean	27/02/2015	Purchase	29/04/2015	29/04/2015

		Shipping Company		order		
5	NPY-P-74	Interocean Projects Pvt. Ltd.	30/11/2015	Purchase order	05/12/2015	05/12/2015

The PP has informed host Party DNA through their website /36/ and to UNFCCC secretariat in writing of their intention to seek CDM status within 180 days of the project activity start date in accordance with the para 08 of the PCP version 09 /09/. The notification emails to UNFCCC include the F-CDM-Prior consideration form duly filled in.

The validation team confirmed the prior consideration through the list of notifications available at UNFCCC website[6], the completed prior consideration form, emails sent to the UNFCCC Secretariat /08/, the form filled at the DNA website /08/.

In conclusion, in accordance with the requirements of the VVS for prior consideration of the CDM, The validation team can confirm that the CDM was considered seriously in the decision to implement the project activity.

Investment Barrier:

The PP has applied the investment barrier to the project activity. Further, a benchmark analysis was conducted.

PDD demonstrates that the project will not be financially feasible, without the revenue from the sale of certified emission reductions (CERs). The claim of the project developer that the project scenario is not economically feasible without benefits from CER sales has been assessed by the validation team through the following steps:

A) Appropriateness of investment analysis, financial indicator and benchmark:

In accordance with EB35, Annex 34 "Non-binding best practice examples to demonstrate additionality for SSC project activities", the best practice examples for investment barrier include the application of investment comparison analysis using a relevant financial indicator, application of a benchmark analysis or simple cost analysis. The PP has demonstrated the financial unattractiveness of project activity through investment barrier by applying the benchmark analysis. Since, the project activity yields income through sale of electricity which is addition to CDM income, a simple cost analysis is not appropriate. Since, the baseline for the project activity is electricity supplied by the grid which is outside the direct control of the project developer; the choice of benchmark approach for demonstration of additionality is most relevant.

The project participant has chosen post tax equity IRR to demonstrate the additionality of the project in line to the guidance 16 of investment analysis version 07/31/ which indicates that the use of Required/expected returns on equity are appropriate benchmarks for equity IRR.

The project participant has chosen the benchmark in line investment analysis version 07, by selecting the default values for group I (as per option (a)) provided in Appendix of Annex 05 of EB 92 for the host country i.e., India and thereafter converting the real values into the nominal values by adding the inflation rate (forecasted for next 10 years) sourced from the "Reserve Bank of India"[7].

The default post tax equity return was sourced from the Appendix of EB92 Annex 05, which is acceptable to the assessment team.
The referred sourced for the inflation has been verified by the validation team and was found to be valid and latest at the time of investment decision.
The conversion of real value into the nominal value has been carried out by selecting

[6] http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html.
[7] https://rbi.org.in/Scripts/PublicationsView.aspx?id=16202

the "Energy Sector" for the host country (India) from the version 07 of methodological tool 'Investment Analysis' (version 7) (EB92, Annex 05) is presented in the "PDD" /2/ and thereby adding the inflation rate by applying the formula:

Nominal Benchmark = {(1+ Real Benchmark)*(1+Expected Inflation Rate) – 1}

The nominal value of expected return on equity comes out to be as **15.50%** i.e. the benchmark for the proposed project activity.

The validation team has checked the calculation approach and found it appropriate.
The formulae for converting real terms returns into nominal values has been validated from book 'Corporate Finance, Theory and Practice (2nd Edition, 2009) by Aswath Damodaran. In Chapter 11 of the book titled 'Investment Analysis with Inflation and Exchange Rate Risk on page 320, the same equation is mentioned for converting real into nominal values. Therefore, it is confirmed by the validation team that the approach adopted by the PP was based on the input values available at the time of investment decision and based on standard conversion as prescribed in referred books. The selected benchmark is appropriate as it is based on default post tax equity return for the type of project as per EB 92, Annex 5 and the value of inflation was latest at the time of investment decision.
Therefore, the validation team concludes that the benchmark selected by the project developer is suitable for the financial indicator selected for each location specific financial analysis conducted.
The input parameters used in the financial analysis are taken from the offer letters12-16/.

Appropriateness of Input Parameter:

The input parameters used in the financial analysis are taken from the offer letters /12-16/, validation team considers the source as appropriate and in conformance with the guidelines. The validation team has compared the input parameters used for the investment analysis/3/ and in PDD/2/ with the independent third party sources and publicly available information as reported in below table and was able to confirm that values applied are consistent with the values stated in offer letters/12-16/.

The project activity involves selling of electricity to NEWNE grid with the aid of power purchase agreement signed between PP and DISCOM.
The project activity involves selling of electricity to NEWNE grid.

The input parameters values, there sources and appropriateness has been discussed in the table below for each WTGs:

Common Input Parameters for all sites:

Input parameter /assumption	Value, Unit	References Used	Means of Validation & Crosschecks
Financing Pattern	70:30 Debt: Equity	MPERC Tariff Order /40/ & Letter from ICICI Bank/43/	The assumption for the debt equity ratio has been sourced from the MPERC tariff order dated 26/03/2013 available at the time of decision making, the financing pattern was further cross checked from the loan sanction letter/43/; which reveals the total debt for the project activity is ~70% for all sites except for WTG R22 where the actual debt is 49%. The actual debt equity ratio changes the IRR of the site (R-

				22) 10.01% from 9.85% and well below the benchmark. Therefore validation team confirms that the debt equity considered by PP is reasonable.
	Project life	25 Years	MPERC Tariff Order/40/	This is sourced from the tariff order released by the state regulatory body MPERC. MPERC tariff order validated to confirm the technical life time. Validation team confirms based on its local and sectoral expertise that the technical lifetime considered is reasonable.
	Salvage Value	10%	MPERC tariff order /40/ CERC tariff order /41/	10% salvage value represents potential profit and therefore it conforms to guidance 6 of Annex 05, EB 92. Therefore, the validation team considers the salvage value as appropriate and conservative as the assessment period is for full technical life time. Based on the local and sectoral expertise validation team is convinced that the value considered by the PP is appropriate and valid at the time of decision making.
	Rate of Depreciation (As per Books) on Plant and Machinery	4.75%	Company Act/42/	PP has provided book depreciation at 4.75% therefore; the book depreciation adopted is in conformity with accepted accounting principles. Book depreciation is based on the rates recommended by Schedule XIV of Companies Act. This value does not affect additionality. The value is considered correct and appropriate.
	Book depreciation	90%	CERC order dated 26/04/2010 /41/	90% book depreciation is in compliance with the national laws. The CERC order validated to confirm the same.
	MAT Rate	20.01%	Income Tax Rules /38/	The MAT rate is considered as 20.1% prevailing at the time of decision making. Validation team validated the same from the website of income tax and confirms it.
	Corporate Tax	32.45%	Income Tax Rules /38/	The rate is based on the Income tax rate applicable to the financial year at which the investment decision is taken, was taken. The tax rate is correct and appropriate and in conformity with the guidance 11 of Annex 5, EB 92.

	Tax holiday	10 Years	Income Tax Rules /38/	As per Sec. 80-IA of the Income Tax Act, infrastructure companies (under which the project activity falls) are entitled to claim tax holiday for any 10 consecutive years in the first 15 years of operation. Hence, the assumption and computation of tax liability are correct and appropriate.
	Loan Repayment	10 Years	MPERC tariff Order 2010/40/ CERC tariff order /41/ Letter from ICICI bank/43/	Repayment period is based on the MPERC tariff order. Validation team checked the value from MPERC tariff order /40/ available to PP at the time of decision making and found consistent. Since the tariff order is released by the government regulatory body the same is accepted to assessment team. Assessment team reviewed the letter from ICICI bank to crosscheck the actual loan repayment tenure. The loan sanction letter reveals the repayment period as ~8 years.
	Interest on term loan	14.55%	Calculated as average of BPLR of five major bank	The interest rate was calculated by taking the average of five major banks prevailing at the time of decision making. The calculation is demonstrated in the IRR spreadsheet and the found appropriate. . The actual interest rate was also crosschecked by the assessment team the actual effective interest rate is variable and during the loan sanction it was in the range of 9.8% to 10.75% for different sites, the actual interest rates reduces the IRRs of the project as crosschecked by inserting the actual interest rates in the IRR spreadsheets. Therefore assessment team considers the interest rate considered by PP is acceptable.
	IT Depreciation (Accelerated)	80%	Income Tax Rules /39/	Depreciation provided for computation of IT liability is based on the Income Tax rules. The rate has been verified and found to be Correct. The IT depreciation is applied to the WTGs. Accelerated depreciation has used for the MP site.
	Tariff rate of electricity	5.92 INR/kWh	MPERC Tariff Order 2013 /40/	The investment decision was taken considering a tariff of 5.92 INR/kWh flat rates for a period of 25 year to grid as

			validated from state electricity tariff order for the wind power. The value of tariff was further crosschecked from the PPA signed between PP and DISCOM/19/ and found that the actual tariff is in line with the tariff order for wind turbines R-22, GCH 235N, GCH 119N and RH-06. However the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh as per signed PPA /19/, hence the considered tariff is conservative. Validation team The PPA is fixed for the lifetime and doesn't have any provisions for escalation. Therefore validation team concludes that the tariff considered is appropriate.
% of escalation per annum on O & M Charges every year after 2nd Year	5%	Offer from the technology suppliers/12-16/. MPERC tariff order 2013 /40/	The escalation on O&M cost is sourced from the offer provided by the technology supplier. MPERC tariff order recommends the annual escalation of 5.72% after 5 years. Sensitivity analysis revealed that even if the removal of entire O&M cost, the project doesn't render its additionality. Therefore the escalation is accepted by validation team.

Site specific input parameters for 2MW WTG (Gamesa)-Guradiyadas (R-22)

Investment decision: Dated 16/02/2015

Assumptions/ Considerations	Value, Unit	References Used	Validation Remark
Capacity of Machine	2 MW (1 unit)	Management Decision/9/ Contract Issued to Gamesa /12/	The value is validated from the contract issued to Gamesa /12/ & from the copy of Management Decision /9/. The input values considered at the time of investment decision were valid and applicable. This was further confirmed from the commissioning certificates/11/.
Project Capital Cost	160 Million INR	Offer from the technology supplier /12/ Purchase order /12/	The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning & power evacuation. The project participant has

					submitted the offers for the entire break up, and the cost has been verified to be consistent and appropriate. However, the actual cost of the project (based on purchase orders/12/) is INR 150 million in contrast to the cost given in the offer/12/ INR 160 million, which is 6% less than the project cost considered for additionality demonstration. The actual cost for this site is within the sensitivity range of -10%. Therefore the same is accepted to assessment team.	
		Plant Load Factor (PLF)	22.4%	Third party PLF report 18/	PLF has been estimated by third party (AWS Truepower) in its assessment report /18/. The PP has used this estimation in its financial analysis as well. The PLF sourced is in line with the requirements of para 03 (a) of EB 48, Annex 11. The validation team reviewed the MPERC tariff order 2013 /40/ in order assesses the appropriateness of PLF provided by the third party and found that the PLF recommended by the MPERC is 20%. Therefore validation team concludes that the PLF considered by the CDM PP is conservative than the PLF recommended by the state regulatory body (MPERC).	
		O & M Cost	1.9 Million INR	Offer from the technology supplier /12/ MPERC tariff order 2013 /40/	O&M cost is based on offer provided by the technology supplier, a copy of which has been submitted to KBS. The value has been verified and found to be correct. As this offer was available to PP at the time of decision making therefore this is also in conformity with the	

			guidance 11 of EB 92, Annex 5. The O&M cost is further crosschecked with the MPERC tariff order 2013. The tariff order considered the O&M cost as 0.951 Mn. INR/MWh (i.e. 1.902 Mn. INR for 2 MWh) for the first year thereafter 5.72% annual escalation. The cost considered by the PP is comparable which is accepted by the validation team.

For 2MW WTG (Gamesa)-Bardu (GCH 119N)

Investment decision: Dated 16/02/2015

Assumptions/ Considerations	Value, Unit	References Used	Validation Remark
Capacity of Machine	2 MW (1 unit)	Management Decision/9/ Contract Issued to Gamesa /14/	The value is validated from the contract issued to Gamesa /14/ & from the copy of Management Decision /9/. The input values considered at the time of investment decision were valid and applicable. This was further confirmed from the commissioning certificates/11/.
Project Capital Cost	160 Million INR	Offer from the technology supplier /14/ Purchase order /14/	The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning & power evacuation. The project participant has submitted the offers for the entire break up, and the cost has been verified to be consistent and appropriate. However, the actual cost of the project (based on purchase orders/14/) is INR 153 million in contrast to the cost given in the offer/14/ INR 160 million, which is 4.38% less than the project cost considered for additionality demonstration. The actual cost for this site is within the sensitivity

					range of -10%. Therefore the same is accepted to assessment team.
		Plant Load Factor (PLF)	22.24%	Third party PLF report 18/	PLF has been estimated by third party (AWS Truepower) in its assessment report /18/. The PP has used this estimation in its financial analysis as well. The PLF sourced is in line with the requirements of para 03 (a) of EB 48, Annex 11. The validation team reviewed the MPERC tariff order 2013 /40/ in order assesses the appropriateness of PLF provided by the third party and found that the PLF recommended by the MPERC is 20%. Therefore validation team concludes that the PLF considered by the CDM PP is conservative than the PLF recommended by the state regulatory body (MPERC).
		O & M Cost	1.9 Million INR	Offer from the technology supplier /12/ MPERC tariff order 2013 /40/	O&M cost is based on offer provided by the technology supplier, a copy of which has been submitted to KBS. The value has been verified and found to be correct. As this offer was available to PP at the time of decision making therefore this is also in conformity with the guidance 11 of EB 92, Annex 5. The O&M cost is further crosschecked with the MPERC tariff order 2013. The tariff order considered the O&M cost as 0.951 Mn. INR/MWh (i.e. 1.902 Mn. INR for 2 MWh) for the first year thereafter 5.72% annual escalation. The cost considered by the PP is comparable which is accepted by the validation team.

For 2MW WTG (Gamesa)-Jamonia (GCH 235N)

Investment decision: Dated 16/02/2015

Assumptions/ Considerations	Value, Unit	References Used	Validation Remark
Capacity of Machine	2 MW (1 unit)	Management Decision/9/ Contract Issued to Gamesa /13/	The value is validated from the contract issued to Gamesa /13/ & from the copy of Management Decision /9/. The input values considered at the time of investment decision were valid and applicable. This was further confirmed from the commissioning certificates/11/.
Project Capital Cost	160 Million INR	Offer from the technology supplier /13/ Purchase order /13/	The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning & power evacuation. The project participant has submitted the offers for the entire break up, and the cost has been verified to be consistent and appropriate. However, the actual cost of the project (based on purchase orders/14/) is INR 153 million in contrast to the cost given in the offer/14/ INR 160 million, which is 4.38% less than the project cost considered for additionality demonstration. The actual cost for this site is within the sensitivity range of -10%. Therefore the same is accepted to assessment team.
Plant Load Factor (PLF)	22.10%	Third party PLF report 18/	PLF has been estimated by third party (AWS Truepower) in its assessment report /18/. The PP has used this estimation in its financial analysis as well. The PLF sourced is in line with the requirements of para 03 (a) of EB 48, Annex 11. The validation team reviewed the MPERC

			tariff order 2013 /40/ in order assesses the appropriateness of PLF provided by the third party and found that the PLF recommended by the MPERC is 20%. Therefore validation team concludes that the PLF considered by the CDM PP is conservative than the PLF recommended by the state regulatory body (MPERC).
O & M Cost	1.9 Million INR	Offer from the technology supplier /12/ MPERC tariff order 2013 /40/	O&M cost is based on offer provided by the technology supplier, a copy of which has been submitted to KBS. The value has been verified and found to be correct. As this offer was available to PP at the time of decision making therefore this is also in conformity with the guidance 11 of EB 92, Annex 5. The O&M cost is further crosschecked with the MPERC tariff order 2013. The tariff order considered the O&M cost as 0.951 Mn. INR/MWh (i.e. 1.902 Mn. INR for 2 MWh) for the first year thereafter 5.72% annual escalation. The cost considered by the PP is comparable which is accepted by the validation team.

For 1*2MW WT (Inox)_ Nipaniya (NPY P-74)

Investment decision: Dated 06/02/2015

Assumptions/ Considerations	Value, Unit	References Used	Validation Remark
Capacity of Machine	2 MW (1 unit)	Management Decision/9/ Contract Issued to Inox /16/	The value is validated from the contract issued to Inox /13/ & from the copy of Management Decision /9/. The input values considered at the time of investment decision were valid and applicable. This was further confirmed from

				the commissioning certificates/11/.
	Project Capital Cost	140 Million INR	Offer from the technology supplier /16/ Purchase order /16/	The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning & power evacuation. The project participant has submitted the offers for the entire break up, and the cost has been verified to be consistent and appropriate. However, the actual cost of the project (based on purchase orders/16/) is INR 128.9 million in contrast to the cost given in the offer/16/ INR 140 million, which is 7.93% less than the project cost considered for additionality demonstration. The actual cost for this site is within the sensitivity range of -10%. Therefore the same is accepted to assessment team.
	Plant Load Factor (PLF)	20.7%	Third party PLF report 18/	PLF has been estimated by third party (TUV Rhineland India Pvt. Ltd.) in its assessment report /18/. The PP has used this estimation in its financial analysis as well. The PLF sourced is in line with the requirements of para 03 (a) of EB 48, Annex 11. The validation team reviewed the MPERC tariff order 2013 /40/ in order assesses the appropriateness of PLF provided by the third party and found that the PLF recommended by the MPERC is 20%. Therefore validation team concludes that the PLF considered by the CDM PP is conservative than the PLF recommended by the state regulatory body (MPERC).
	O & M Cost	1.8 Million INR	Offer from the technology	O&M cost is based on offer provided by the technology supplier, a

	supplier /16/ MPERC tariff order 2013 /40/	copy of which has been submitted to KBS. The value has been verified and found to be correct. As this offer was available to PP at the time of decision making therefore this is also in conformity with the guidance 11 of EB 92, Annex 5. The O&M cost is further crosschecked with the MPERC tariff order 2013. The tariff order considered the O&M cost as 0.951 Mn. INR/MWh (i.e. 1.902 Mn. INR for 2 MWh) for the first year thereafter 5.72% annual escalation. The cost considered by the PP is comparable which is accepted by the validation team which is within the sensitivity range of -10%.

For 1*1.5MW WTG MP (Regen) (R-06)

Investment decision: Dated 16/02/2015

Assumptions/ Considerations	Value, Unit	References Used	Validation Remark
Capacity of Machine	1.5 MW (1 unit)	Management Decision/9/ Contract Issued to Regen /15/	The value is validated from the contract issued to Regen /15/ & from the copy of Management Decision /9/. The input values considered at the time of investment decision were valid and applicable. This was further confirmed from the commissioning certificates/11/.
Project Capital Cost	110 Million INR	Offer from the technology supplier /16/ Purchase order /15/	The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning & power evacuation. The project participant has submitted the offers for the entire break up, and the cost has been verified to be consistent and appropriate. However, the actual cost of the project (based on purchase orders/15/) is

					INR 104.2 million in contrast to the cost given in the offer/15/ INR 110 million, which is 5.27% less than the project cost considered for additionality demonstration. The actual cost for this site is within the sensitivity range of -10%. Therefore the same is accepted to assessment team.	
		Plant Load Factor (PLF)	24%	Third party PLF report 18/	PLF has been estimated by third party (PEC) in its assessment report /18/. The PP has used this estimation in its financial analysis as well. The PLF sourced is in line with the requirements of para 03 (a) of EB 48, Annex 11. The validation team reviewed the MPERC tariff order 2013 /40/ in order assesses the appropriateness of PLF provided by the third party and found that the PLF recommended by the MPERC is 20%. Therefore validation team concludes that the PLF considered by the CDM PP is conservative than the PLF recommended by the state regulatory body (MPERC).	
		O & M Cost	1.7 Million INR	Offer from the technology supplier /15/ MPERC tariff order 2013 /40/	O&M cost is based on offer provided by the technology supplier, a copy of which has been submitted to KBS. The value has been verified and found to be correct. As this offer was available to PP at the time of decision making therefore this is also in conformity with the guidance 11 of EB 92, Annex 5. The O&M cost is further crosschecked with the MPERC tariff order 2013. The tariff order considered the O&M cost as 0.951 Mn.	

			INR/MWh (i.e. 1.427 Mn. INR for 1.5 MWh) for the first year thereafter 5.72% annual escalation. The cost considered by the PP is comparable which is accepted by the validation team. Even with the O&M cost considered as 1.427 Mn. INR, IRR does not crosses the benchmark.

Sensitivity Analysis:
Methodological tool, "Investment Analysis" (EB 92, Annex 05) requires a sensitivity analysis to be conducted to prove the robustness of the investment analysis, if the input values changes. Paragraph 28 of EB 92, Annex 05/13.2/ requires a sensitivity discussion on variables including investment cost and all those which constitute more than 20% of the total cost or revenues.
In accordance with paragraph 28 and 29 of EB 92, Annex 05/13.2/, sensitivity analysis is performed on project cost, O&M Cost, PLF and tariff.

1*2MW (Gamesa)_Bardu (GCH 119N)

Factors	Variation			Breaching value
	-10%	0%	+10%	
Project Cost	12.26 %	9.66%	7.43%	-19.59%
O&M Cost	9.86%	9.66%	9.37%	-217.6%
PLF	6.81%	9.66%	12.28%	21.82%
Tariff	6.81%	9.66%	12.28%	21.82%
Benchmark	**15.50%**			

PP has submitted that such a reduction in project cost, O&M Cost or increase in PLF or tariff is highly unrealistic and unlikely to happen for the following reasons:

Project cost: Since contract/25/ have already been placed, therefore validation team has crosschecked the impact on equity IRR based on the actual cost paid by PPs sourced from the Contract/25/ and the same has been selected as range of variation, the actual project cost as per the purchase order placed is within the sensitivity range of -10% and validated in the above table for input parameters.

O&M Cost: The sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Since the O&M cost is subject to escalation (as evidence by the MPERC tariff order) and also subject to inflationary pressure, any reduction in the O&M costs is highly unlikely. Hence, the reduction in the O&M cost is highly unlikely.

PLF: The PLF has been sourced from the third party reports /18/ and the value of the PLF 22.44% in conformity with the EB 48, Annex 11 is comparable to the PLF recommended by MPERC i.e. 20% hence achieving PLF higher than the PLF considered is ruled out.

Tariff: As per the signed PPAs /19/ with DISCOMS for the WTGs R-22, GCH 235N, GCH 119N and RH-06, the actual tariff is INR 5.92/kWh flat rate for a period of 25 year which is equal to the considered tariff in the IRR analysis. Hence further variation is not possible.
The sensitivity was tested on the actual tariff and found that the IRR crosses the benchmark when there is increase of around 12.3% in the actual tariff considered. As

the long term PPA is already in place with a flat tariff of INR 5.92/kWh therefore any further increase from the tariff fixed in PPA is hypothetical in context of project activity.

Also the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh flat rate for 25 years as per signed PPA /19/ which is below than the considered Tariff i.e. 5.92 in the IRR calculation. Hence it is not possible to increase the tariff further.

1*2MW (Gamesa) Jamoniya (GCH 235N)

Factors	Variation			Breaching value
	-10%	0%	+10%	
Project Cost	12.07%	9.50%	7.25%	-20.15%
O&M Cost	9.79%	9.50%	9.19%	-224.0%
PLF	6.63%	9.50%	12.10%	22.60%
Tariff	6.63%	9.50%	12.10%	22.60%
Benchmark	**15.50%**			

PP has submitted that such a reduction in project cost, O&M Cost or increase in PLF or tariff is highly unrealistic and unlikely to happen for the following reasons:

Project cost: Since contract/25/ have already been placed, therefore validation team has crosschecked the impact on equity IRR based on the actual cost paid by PPs sourced from the Contract/25/ and the same has been selected as range of variation, the actual project cost as per the purchase order placed is within the sensitivity range of -10% and validated in the above table for input parameters.

O&M Cost: The sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Since the O&M cost is subject to escalation (as evidence by the MPERC tariff order) and also subject to inflationary pressure, any reduction in the O&M costs is highly unlikely. Hence, the reduction in the O&M cost is highly unlikely.

PLF: The PLF has been sourced from the third party reports /18/ and the value of the PLF 22.10% in conformity with the EB 48, Annex 11 is comparable to the PLF recommended by MPERC i.e. 20% hence achieving PLF higher than the PLF considered is ruled out.

Tariff: As per the signed PPAs /19/ with DISCOMS for the WTGs R-22, GCH 235N, GCH 119N and RH-06, the actual tariff is INR 5.92/kWh flat rate for a period of 25 year which is equal to the considered tariff in the IRR analysis. Hence further variation is not possible.
The sensitivity was tested on the actual tariff and found that the IRR crosses the benchmark when there is increase of around 12.3% in the actual tariff considered. As the long term PPA is already in place with a flat tariff of INR 5.92/kWh therefore any further increase from the tariff fixed in PPA is hypothetical in context of project activity.

Also the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh flat rate for 25 years as per signed PPA /19/ which is below than the considered Tariff i.e. 5.92 in the IRR calculation. Hence it is not possible to increase the tariff further.

1*1.5MW (Regen) (R-06)

Factors	Variation			Breaching value
	-10%	0%	+10%	
Project Cost	16.73%	13.50%	10.96%	-6.5%
O&M Cost	13.87%	13.50%	13.13%	-54.7%
PLF	10.32%	13.50%	16.77%	6.17%
Tariff	10.32%	13.50%	16.77%	6.17%
Benchmark	**15.50%**			

PP has submitted that such a reduction in project cost, O&M Cost or increase in PLF or tariff is highly unrealistic and unlikely to happen for the following reasons:

Project cost: Since contract/purchase order/25/ have already been placed, therefore validation team has crosschecked the impact on equity IRR based on the actual cost paid by PPs sourced from the Contract/25/ and the same has been selected as range of variation, the actual project cost as per the purchase order placed is within the sensitivity range of -10% and validated in the above table for input parameters.

O&M Cost: The sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Since the O&M cost is subject to escalation (as evidence by the MPERC tariff order) and also subject to inflationary pressure, any reduction in the O&M costs is highly unlikely. Hence, the reduction in the O&M cost is highly unlikely.

PLF: The PLF has been sourced from the third party reports /18/ and the value of the PLF 24% in conformity with the EB 48, Annex 11 is comparable to the PLF recommended by MPERC i.e. 20% hence achieving PLF higher than the PLF considered is ruled out.

Tariff: As per the signed PPAs /19/ with DISCOMS for the WTGs R-22, GCH 235N, GCH 119N and RH-06, the actual tariff is INR 5.92/kWh flat rate for a period of 25 year which is equal to the considered tariff in the IRR analysis. Hence further variation is not possible.
The sensitivity was tested on the actual tariff and found that the IRR crosses the benchmark when there is increase of around 12.3% in the actual tariff considered. As the long term PPA is already in place with a flat tariff of INR 5.92/kWh therefore any further increase from the tariff fixed in PPA is hypothetical in context of project activity.

Also the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh flat rate for 25 years as per signed PPA /19/ which is below than the considered Tariff i.e. 5.92 in the IRR calculation. Hence it is not possible to increase the tariff further.

1*2MW (Gamesa) Guradiyadas (R-22)

Factors	Variation			Breaching value
	-10%	0%	+10%	
Project Cost	12.47 %	9.85%	7.63%	-18.94%
O&M Cost	10.07 %	9.85%	9.56%	-210.3%
PLF	7.02%	9.85%	12.49%	20.98%
Tariff	7.02%	9.85%	12.49%	20.98%
Benchmark	**15.50%**			

PP has submitted that such a reduction in project cost, O&M Cost or increase in PLF or tariff is highly unrealistic and unlikely to happen for the following reasons:

Project cost: Since contract/25/ have already been placed, therefore validation team has crosschecked the impact on equity IRR based on the actual cost paid by PPs sourced from the Contract/25/ and the same has been selected as range of variation, the actual project cost as per the purchase order placed is within the sensitivity range of -10% and validated in the above table for input parameters.

O&M Cost: The sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Since the O&M cost is subject to escalation (as evidence by the MPERC tariff order) and also subject to inflationary pressure, any

reduction in the O&M costs is highly unlikely. Hence, the reduction in the O&M cost is highly unlikely.

PLF: The PLF has been sourced from the third party reports /18/ and the value of the PLF 22.4% in conformity with the EB 48, Annex 11 is comparable to the PLF recommended by MPERC i.e. 20% hence achieving PLF higher than the PLF considered is ruled out.

Tariff: As per the signed PPAs /19/ with DISCOMS for the WTGs R-22, GCH 235N, GCH 119N and RH-06, the actual tariff is INR 5.92/kWh flat rate for a period of 25 year which is equal to the considered tariff in the IRR analysis. Hence further variation is not possible.
The sensitivity was tested on the actual tariff and found that the IRR crosses the benchmark when there is increase of around 12.3% in the actual tariff considered. As the long term PPA is already in place with a flat tariff of INR 5.92/kWh therefore any further increase from the tariff fixed in PPA is hypothetical in context of project activity.

Also the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh flat rate for 25 years as per signed PPA /19/ which is below than the considered Tariff i.e. 5.92 in the IRR calculation. Hence it is not possible to increase the tariff further.

1*2MW (Inox)_Nipaniya (NPY P-74)

Factors	Variation			Breaching value
	-10%	0%	+10%	
Project Cost	12.21%	11.08%	10.55%	-31.45%
O&M Cost	11.39%	11.08%	10.77%	-150.0%
PLF	8.13%	11.08%	13.93%	15.34%
Tariff	8.13%	11.08%	13.93%	15.34%
Benchmark	**15.50%**			

PP has submitted that such a reduction in project cost, O&M Cost or increase in PLF or tariff is highly unrealistic and unlikely to happen for the following reasons:

Project cost: Since contract/25/ have already been placed, therefore validation team has crosschecked the impact on equity IRR based on the actual cost paid by PPs sourced from the Contract/25/ and the same has been selected as range of variation, the actual project cost as per the purchase order placed is within the sensitivity range of -10% and validated in the above table for input parameters.

O&M Cost: The sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Since the O&M cost is subject to escalation (as evidence by the MPERC tariff order) and also subject to inflationary pressure, any reduction in the O&M costs is highly unlikely. Hence, the reduction in the O&M cost is highly unlikely.

PLF: The PLF has been sourced from the third party reports /18/ and the value of the PLF 22.7% in conformity with the EB 48, Annex 11 is comparable to the PLF recommended by MPERC i.e. 20% hence achieving PLF higher than the PLF considered is ruled out.

Tariff: As per the signed PPAs /19/ with DISCOMS for the WTGs R-22, GCH 235N, GCH 119N and RH-06, the actual tariff is INR 5.92/kWh flat rate for a period of 25 year which is equal to the considered tariff in the IRR analysis. Hence further variation is not possible.
The sensitivity was tested on the actual tariff and found that the IRR crosses the benchmark when there is increase of around 12.3% in the actual tariff considered. As the long term PPA is already in place with a flat tariff of INR 5.92/kWh therefore any further increase from the tariff fixed in PPA is hypothetical in context of project activity.

Also the tariff order for the wind turbine NPY P-74 is 4.78 INR/kWh flat rate for 25 years

	as per signed PPA /19/ which is below than the considered Tariff i.e. 5.92 in the IRR calculation. Hence it is not possible to increase the tariff further.
Findings	CL#06 was raised and closed satisfactorily.
Conclusion	The assessment team confirms: a) The start date of project activity is prior to the date of publication of PDD/2/ for stakeholder comments. The start date of the project activity has been determined in accordance 'Glossary of CDM terms version 8'/35/. b) The evidence for prior consideration of CDM project activity is duly assessed and found to be authentic. c) The project analysis complies with requirements of the latest version of VVS. d) All the parameters and assumptions used in the investment analysis have been assessed thoroughly and found appropriate. The information with regard to how the input values was validated, cross-checked is included under relevant parameter. e) The sources used have been reviewed by the assessment team found to be authentic as referenced under relevant parameter. f) The benchmark was found suitable and has been thoroughly explained in detail. g) All the assumptions and calculations for investment analysis area have been checked by the financial expert and technical expert and found to be correct and reasonable. h) The financial returns from the project activity area insufficient to meet the required investment against the selected benchmark under reasonable variations (sensitivity) conducted on key parameters. i) The project activity complies with the latest version of "Tool for demonstration and assessment of additionality" and "Guidance on the assessment of investment analysis".

D.8.7. Emission reductions

Means of validation	The emission reductions are calculated in accordance with equation 9 of applied baseline methodology AMS-I.D. version 18 /26/: ERy = BEy- PEy-LEy As per the applied methodology, there is no project emission as this is a wind energy based power generation project, hence PEy=0 Also there is no Leakage emission as per applied methodology for this type of project activity. Hence LEy=0 Hence ERy = BEy **Baseline emissions**: The baseline emissions (BEy) are calculated in accordance with equation 1 of the applied baseline methodology. $\mathbf{BEy = EG_{PJ,y} \times EF_{grid,y}}$ Where: BEy: Baseline emissions in year y (t CO2) $EG_{PJ,y}$: 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) $EF_{grid,y}$: Combined margin CO2 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" (t CO2/MWh) Considering the proposed project activity is a grid connected green field wind power project activity, $EG_{PJ,y}$ has been determined based on the following input parameters; $EG_{PJ,y}$ = Installed Capacity (MW) * Plant Load Factor (%) * Operating Hours (per year) $EG_{PJ,y}$ = (2MW*20.7%+2MW*22.1%+2MW*22.4%+ 2MW*22.24% + 1.5MW*24%)* 365days * 24 hours = 18470 MWh (rounded down) PLF have been taken from third party reports /18/ and the operating hours are calculated based on 365 days/year and 24 hours/day. The determination of $EF_{grid,y}$ has been done in accordance with provisions indicated in the "Tool to calculate the emission factor for an electricity system" Version 5/32/ as required by the applied methodology AMS-I.D. Version 18 /26/. The step by step compliance to the "Tool to calculate the emission factor for an electricity system" Version 5 is included in the PDD/2/ (Section B.6.1) and results are included in the section B.6.2. The assessment team confirms that the application included in the PDD/2/ in this regard complies with the requirements stipulated in the referred tool. The Central Electricity Authority, India (CEA) calculates the Operating Margin and Build Margin grid emission factor as per the "Tool to calculate the emission factor for an electricity system"/32/. It must be worthy to note that CEA database version 10/20/ uses 'tool to calculate emission factor for an electricity system' version 04.0.0. The project activity applies a later version 05.0.0 of the same tool, which has been published by the CDM EB. However, it has been confirmed that the result of OM and BM in version 10 of CEA database/20/ remains same even with the application of version 05.0.0 of the emission factor tool. The CEA database/20/ is endorsed by the DNA of host Party India, therefore values of OM and BM calculated by CEA (in version 10)/20/ has been considered accurate

and acceptable in the calculation of baseline grid emission factor.
The values OM & BM mentioned in the PDD/2/ were validated from CO_2 Baseline Database, version 10/20/ of data published by CEA and were found to be correct. It is further that version 10 of CEA database/20/ was the latest available during the webhosting (commencement of validation) of PDD/2/. The results of application of the referred tools are summarized below;

Parameter	Value	Validation Remarks
Project electricity system	NEWNE grid of India	The project is connected to the identified electricity system.
Operating Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{OM, y}$)	0.98620 tCO2/MWh	The value has been determined based on generation weighted average emission factor for most recent 3 years (2011-12, 2012-13 and 2013-14) at the time of publication of the PDD/2/ OM and electricity generation for respective years has been taken from CEA database version 10/20/.
Build Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{BM, y}$)	0.94954 tCO2/MWh	The value has been determined on the emission factor for year the most recent (2013-14) at the time of publication of the PDD/2/ as per requirements in the referred tool. BM for 2013-14 has been taken from CEA database version 10/20/.
Combined Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{grid, y}$)	0.97704 tCO2/MWh	The weight considered to OM and BM is 0.75 and 0.25 respectively for the crediting period as per the procedures defined in the referred tool in the context of the wind power projects.

In summary, the combined margin emissions factor has been calculated as per tool as follows:

$$EF_{grid,CM,y} = EF_{grid,OM,y} * w_{OM} + EF_{grid,BM,y} * w_{BM}$$

The combined margin has been determined as 0.97704 tCO_2e/MWh, the same has been calculated in line with the applicable requirements and is found appropriate.

Findings	No CAR/CL raised.
Conclusion	In accordance with §141-143 VVS V9 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 1. All assumptions and data used by the project participants are listed in the PDD, including their references and sources; 2. All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD; 3. All values used in the PDD are considered reasonable in the context of the proposed project activity; 4. The baseline methodology and corresponding tool(s) have been applied correctly

	to calculate project emissions, leakage emissions, baseline emissions and emission reductions; 5. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD. The validation team confirms that the project activity complies with the requirements of VVS, version 09.

D.8.8. Monitoring plan

Means of validation

The monitoring plan of the proposed CDM project activity is based on the applied approved methodology AMS-I.D., version 18/26/. The description about the monitoring parameters fixed ex-ante at validation discussed in section B.6.2 of the PDD/2/ has been checked and was found in accordance with the project scenario. The data was well calculated and was traceable and credible.

The section B.7 of the PDD/2/ also provides a clear description about the data and parameters required to be monitored during the crediting period, the details have been cross checked and were found to be in-line with AMS-I.D, version 18/26/. Validation team confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure that the emission reductions resulting from the proposed CDM project activity can be reported *ex post* and verified.

Data and parameters fixed ex-ante at time of validation:

Parameter	Value Considered	Validation Opinion
Operating Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{OM, y}$)	0.98620 tCO2/MWh	The value has been calculated applying the "Tool to calculate the emission factor for an electricity system" version 05 /32/ using the data obtained from "Baseline Carbon Dioxide Emissions from Power Sector – Version 10" published by the CEA/20/.
Build Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{BM, y}$)	0.94954 tCO2/MWh	The value has been calculated applying the "Tool to calculate the emission factor for an electricity system" version 05 /32/ using the data obtained from "Baseline Carbon Dioxide Emissions from Power Sector – Version 10" published by the CEA/20/.
Combined Margin CO_2 emission factor for the NEWNE Grid in year y ($EF_{grid, y}$)	0.97704 tCO2/MWh	The value has been calculated applying the "Tool to calculate the emission factor for an electricity system" version 05 considering a weighted value of OM & BM as 75:25 /32/

The combined margin emission factor for the project activity has been fixed ex-ante as 0.97704 tCO_{2e}/MWh, which has been calculated, considering a weighted value of OM & BM as 75:25, from the CO_2 Baseline Database for the Indian Power Sector prepared by Central Electricity Authority, Version 10/20/. CEA has published a database of carbon dioxide emission factors for the power sector in India based on detailed authenticated information obtained from al operating power stations in the country which have been calculated as per the "Tool to calculate the emission factor for an electricity system". The validation team confirms that the database version 10/20/ is used to calculate the combined margin emission factor was the latest database available at the time of start of validation and the combined margin emission factor for the NEWNE grid of India is fixed ex-ante for the entire crediting period.

Data and parameters to be monitored:

Parameter	Description, Unit	Value	Assessment
$EG_{PJ, y}$	Net electricity supplied to the NEWNE grid facility by the project activity	MWh / year	The net electricity supplied by the project activity will be calculated from the share certificate issued by state electricity utility on monthly basis for respective WTGs. The net electricity exported to the grid by project activity WTGs is calculated/apportioned based on the energy meter reading at substation (includes generation from project and non-project WTGs) and controller reading installed at individual WTGs. Apportioning is discussed in detail under the section B.7.3 of the PDD /02/. The amount of energy supplied by the WTGs are continuously monitored and recorded once a month. There is main and check meter on the substation side. The meters are capable of recording export as well as import. The electricity exported and imported by all the WEG's (project activity as well as non-project activity) are recorded on a monthly basis by the representatives of the PP and state utility on the substation meter. The energy meter will be calibrated as per standard practice adopted by State Nodal agency responsible for calibration of meter. The energy meters at the substation are of 0.2S accuracy class. Calibration of the meter will be done at least once in 3 year. The net electricity supplied to grid used for emission reduction calculation will also be checked from monthly bills raised by PP to DISCOM.

Findings	CL#04 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	a) The assessment team confirms that the monitoring plan as described in section B.7 of the PDD/2/ takes into account all the relevant parameters prescribed in the applied monitoring methodology. b) The monitoring plan was assessed by a two way approach: • By checking the Compliance of the monitoring plan with the applied approved methodology. • By assessing the feasibility of implementation of the monitoring plan as described in the PDD/2/ through onsite observation of the project activity and the monitoring system in place. c) 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/10/.

D.9. Duration and crediting period

Means of validation	The renewable crediting period of 21 years (7*3) has been opted by PP; the length of the crediting period is comparable with the technical lifetime of project activity. The technical lifetime is validated in the additionality section as 25 years. The start date of crediting period is 05/05/2017.
Findings	CAR#08 was raised and closed successfully. Please refer Appendix 4 of the report for details.
Conclusion	Validation team confirms that the project activity comply the requirements of para 68-71 of CDM PS, version 09 /24/.

D.10. Environmental impacts

Means of validation	The project activity is a small scale wind power generation facility which is outside the purview of requirement of an Environmental Impact Assessment (EIA) as per the notification of Ministry of Environment, Forest and Climate Change (Host Party requirements) /21/. The implementation of the project activity would not lead to any adverse environmental impacts and will not lead to any trans-boundary environmental impact as there are no emissions from the project activity.
Findings	Nil
Conclusion	The project participants have not undertaken an environmental impact analysis; as the Host Party does not require that for a wind power generation facility. The assessment team confirms that the project activity does not require an EIA to be conducted and would not lead to any significant environmental impacts including trans-boundary impacts.

D.11. Local stakeholder consultation

Means of validation	The PDD /1/ was webhosted on 13/02/2016 /29/ for global stakeholder consultation; which was after the date when PP organized the local stakeholder consultation on 27/01/2015/10/. The project participants invited the local stakeholders for the consultation by public notice and invitation letters /10/. The notices circulated contained the details of the venue, date and time of the meeting; the minutes of meeting and signed attendance sheet of the local stakeholder consultation have been checked and found authentic. The details of the meeting as discussed in section E of the PDD/1/ were found consistent with the related documents/10/ and it was found that no negative comments were received. The local stakeholders were also interviewed during the on-site assessment/29/ and based on the replies of the villagers (the local stakeholders), the validation team confirms that the local stakeholder consultation was carried out as described in the PDD/2/.
Findings	CAR#09 was raised and closed successfully. Please refer Appendix 4 of the report

	for details.
Conclusion	The validation team have verified all relevant documents of local stakeholder consultation meeting and conducted interview with the stakeholders available at the time of on site visit. It concludes that the project participant conducted the stakeholders' consultation process in transparent and unbiased manner. The validation team confirms that the LSC meeting meets to the requirement of §166 of VVS V9 that the process for conducting the local stakeholders meeting is adequate and credible.

SECTION E. Internal quality control

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Following the completion of the assessment process and a recommendation by the assessment team, the validation opinion prepared by Team Leader is independently reviewed by internal Technical Reviewer (TR). TR reviews if all the KBS procedures have been followed and all conclusions are justified in accordance with applicable standards, procedures, guidance and CDM decisions. The TR either is qualified for the technical area within the CDM sectoral scope(s) applicable to project activity or is supported by qualified independent technical expert at this stage.

The Technical Reviewer will either accept or reject the recommendation made by the assessment team. The findings can be raised at this stage and PP must resolve them within agreed timeline.

The opinion recommended by Technical Reviewer will be confirmed by Manager Technical & Certification and finally authorized by the Managing Director on behalf of KBS as final validation opinion. The Technical Reviewer and Manager T&C maybe be same person.

SECTION F. Validation opinion

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'KBS Certification Services Pvt. Ltd.' has been contracted by "Interocean Shipping (I) Pvt. Ltd." to perform a validation of the project:

Project title: 9.5 MW wind energy based power generation by Interocean Group

Host Party: India

The validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism, latest version of Validation and Verification Standard and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The proposed CDM project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change. 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 "Grid connected renewable electricity generation". It is demonstrated that the project is not a likely baseline scenario. The 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 126,315 tCO_2e over a first 7 years of renewable crediting period during 05/05/2017 to 04/05/2024, averaging 18,045 tCO_2e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

The project will hence be recommended by KBS for request for registration with the UNFCCC.

Appendix 1. Abbreviations

Abbreviations	Full texts
AMS	Approved Methodology for Small-scale
BE	Baseline Emissions
BM	Build Margin
CAR	Corrective Action Request
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CDM	Clean Development Mechanism
CM	Combined Margin
CER	Certified Emission Reduction
CL	Clarification request
COP	Conference of Parties
DISCOM	Distribution Company
DOE	Designated Operational Entity
DNA	Designated National Authority
DR	Document Review
EB	Executive Board
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GPS	Global Positioning system
GSC	Global Stakeholder Consultation
HCA	Host Country Approval
ICICI	Industrial Credit and Investment Corporation of India
INR	Indian National Rupee
KBS	KBS Certification Services Pvt. Ltd.
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation
LE	Leakage Emissions
LoA	Letter of Approval/Authorization
MOP	Meeting of Parties
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
MPERC	Madhya Pradesh Electricity Regulatory Commission
OM	Operating Margin
PA	Project Activity
PDD	Project Design Document
PE	Project Emissions
PLF	Plant Load Factor
PPA	Power Purchase Agreement
PP	Project Participant
PS	Project Standard
PO	Purchase Order
PCP	Project Cycle Procedure
QA/QC	Quality Assurance/Quality Control
RfR	Request for Registration
RoE	Return on Equity
T&C	Technical & Certification
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation & Verification Standard
WTG	Wind Turbine Generator

Appendix 2. Competence of team members and technical reviewers

Personnel Name:		Chetan Swaroop Sharma	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope		**Technical Area**	
Energy industries (renewable/non-renewable sources)		TA 1.2: Energy generation from renewable energy sources	
		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
Approved by (Manager C & T)		Gagandeep Kakkar	
Approval date:		09/10/2015	

Personnel Name:		Sanjay Kandari	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope		**Technical Area**	
Energy Industries (renewable/non-renewable sources)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
Energy industries (renewable/non-renewable sources)		TA 1.2: Energy generation from renewable energy sources	
Energy demand		TA 3.1. Energy Demand	
Waste Handling and Disposal		TA 13.1 Waste Handling and Disposal TA 13.2 Manure	
Approved by (Manager C & T)		Akhilesh Joshi	
Approval date:		11/12/2015	

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	Project Participant	PDD Version 01 (Publicly available for global stakeholder consultation) PDD Version 02	Dated 01/02/2016 Dated 15/03/2017	Project Participant
2.	Project Participant	PDD Version 03.1 (Final PDD)	Dated 30/03/2017	Project Participant
3.	Project Participant	IRR and ER Spread sheet	Corresponding to /1/	Project Participant

4.	Project Participant	IRR and ER Spread sheet	Corresponding /2/	Project Participant
5.	Project Participant	Letter of Approval issued by National CDM Authority, "Ministry of Environment, Forest and Climate Change" Government of India	4/7/2016-CC, dated 08/02/2017	Project Participant
6.	Project Participant	Signed Modalities of Communication	dated 15/03/2017	Project Participant
	Project Participant	Written confirmation from PP to validate Name, designation and signature of authorized signatory in MoC	15/03/2107	Project Participant
7.	Project Participant	Proof of starting date of CDM project activity i.e. first PO for WTG R-22	Dated 27/02/2015	Project Participant
8.	Project Participant	Proof of prior consideration of CDM i.e. evidence of intimation sent to host DNA and UNFCCC secretariat.	Dated 29/04/2015 and dated 05/12/2015	Project Participant
9.	Project Participant	Proof of investment decision: 1. Unique id: R-22 2. Unique id: GCH 235N and GCH 119N 3. Unique id: RH-06 4. Unique id: NPY P-74	 Dated 16/02/2015 Dated 16/02/2015 Dated 16/02/2015 Dated 06/02/2015	Project Participant
10.	Project Participant	Stakeholder Consultation: 1. Minute of meetings 2. Signed attendance sheet 3. Invitation letter 4. Public notification	-	Project Participant
11.	Madhya Pradesh Power Transmission Company Limited	Commissioning certificates of project activity WTGs 1. Unique id: R-22 2. Unique id: GCH 235N and GCH 119N 3. Unique id: RH-06 4. Unique id: NPY P-74	 Dated 31/03/2015 Dated 29/12/2015 Dated 11/02/2016 Dated 10/06/2016	Project Participant
12.	Project Participant and Gamesa Wind Turbines Private Limited	Unique id: R-22 Offer letter Supply contract, Erection and commissioning contract and development contract with Gamesa Wind Turbines Private Limited	 Dated 02/02/2015 Dated 27/02/2015	Project Participant
13.	Project Participant and Gamesa Wind Turbines Private Limited	Unique id: GCH 235N Offer letter Supply contract, Erection and commissioning contract and development contract with Gamesa Wind Turbines Private Limited	 Dated 02/02/2015 Dated 21/11/2015	Project Participant
14.	Project Participant and Gamesa Wind Turbines Private Limited	Unique id: GCH 119N Offer letter Supply contract, Erection and commissioning contract and development contract with Gamesa Wind Turbines Private Limited	 Dated 02/02/2015 Dated 28/11/2015	Project Participant

15.	Project Participant and ReGen Infrastructure & Services Pvt. Ltd.	Unique id: R-06 Offer letter Purchase order, Land Facilitation and Erection & commissioning contract	 Dated 10/02/2015 Dated 05/12/2015	Project Participant
16.	Project Participant and Inox Wind Infrastructures Services Limited	Unique id: NPY P-74 Offer letter Purchase order, Land Facilitation and Erection & commissioning contract	 Dated 04/02/2015 Dated 30/11/2015	Project Participant
17.	Manufacturer	Manufacturer Specification for the WTGs of the project activity	-	Project Participant
18.	Project Participant	PLF assessment by third party i.e. TUV Rhineland India Pvt. Ltd. for Location No. NPY P-74 PLF assessment by a third party i.e. AWS True power covering the locations WTGs GCH-235N, GCH-119N, R-22 PLF assessment by a third party i.e. PEC for Location No. RH-06	Dated 15/03/2016 Dated 06/02/2015 Dated 16/02/2015	Project Participant
19.	Project Participant and State electricity board	Power purchase agreements for the WTGs of the project activity: 1. Unique id: R-22 2. Unique id: GCH 235N 3. Unique id: GCH 119N 4. Unique id: RH-06 5. Unique id: NPY P-74	 Dated 30/04/2015 Dated 20/01/2016 Dated 20/01/2016 Dated 30/05/2016 Dated 05/09/2016	Project Participant
20.	Central Electricity Authority	CEA Baseline Carbon Dioxide Emissions From Power Sector, Central Electricity Authority, Government of India http://cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver10.pdf	Version 10	Project Participant
21.	Ministry of Environment, Forest and Climate Change, Govt. Of India	EIA Notification	Reference no. - S.O. 1533 dated 14th September 2006	MoEF Website
22.	KBS	Onsite assessment and interviews	Dated 16/07/2016	Project Participant
23.	UNFCCC	CDM VVS	Version 9.0	UNFCCC website
24.	UNFCCC	CDM PS	Version 9.0	UNFCCC website
25.	UNFCCC	CDM PCP	Version 9.0	UNFCCC website
26.	UNFCCC	AMS-I.D.: Grid connected renewable electricity generation	Version 18.0	UNFCCC website
27.	UNFCCC	CDM-SSC-PDD Form and Instructions for filling out the project design document form for CDM project activities.	version 08	UNFCCC Website
28.	UNFCCC	Prior Consideration webpage	-	UNFCCC

		https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html		
29.	UNFCCC	UNFCCC web link for Global Stakeholder Consultation https://cdm.unfccc.int/Projects/Validation/DB/Q9DEEY657KA1LVYINLD5MNC16H9BCJ/view.html	-	UNFCCC
30.	UNFCCC	Demonstration of additionality of small-scale project activities	Version 10	UNFCCC Website
31.	UNFCCC	Tool on Investment analysis	Version 07	UNFCCC Website
32.	UNFCCC	Tool to calculate the emission factor for an electricity system	Version 05	UNFCCC Website
33.	UNFCCC	General guidelines for SSC CDM methodologies	version 22.1	UNFCCC Website
34.	UNFCCC	Tool for Assessment of debundling for small-scale project activities	Version 4	UNFCCC Website
35.	UNFCCC	Glossary of CDM Terms Version	Version 8.0	UNFCCC Website
36.	National CDM Authority, Ministry of Environment, Forest and Climate Change, Govt. Of India	http://ncdmaindia.gov.in/future_project.aspx	-	DNA website
37.	Project Participant	Email from Inox i.e. WTG supplier to PP for location change of the project WTG no. NPY-239 to NPY P-74	Dated 11th March 2016	Project Participant
38.	Web link	Corporate Tax, MAT rates	-	http://www.incometaxindia.gov.in/booklets%20%20pamphlets/12.pdf
39.	Web link	Depreciation rate for wind mill	-	http://taxhow.in/2014/09/windmill-depreciation-rate-increase-80/
40.	Web link	MPERC tariff order dated 26/03/2013, i.e. available on the decision making for wind turbines of the project activity	-	http://www.mperc.nic.in/26032013-Wind-tariff-order.pdf
41.	Web link	CERC order dated 26/04/2010	-	http://www.cercind.gov.in/2010/ORDER/April10/Final_RE_Tariff_Order_FY2010-11(53-2010_Suo-motu).pdf
42.	Web link	Company act schedule XIV	-	http://asa-india.com/Depreciation%20Rates%20Companies%20Act.pdf
43.	ICICI Bank	Letter issued to PP detailing the total debt, interest rate and repayment amount for each site.	Dated 17/04/2017	Project Participant
44.	Project Participant	Bundling agreement between the project promoters	Dated 21/12/2015	Project Participant

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

Table 1. CL from this validation

CL ID	01	**Section no.**	D.8.1	**Date:** 20/07/2016
Description of CL				
From the review of the section B.2 of the CDM PDD, validation team has found: The applicability condition as per para 3 of the applied methodology (AMS-I.D. version 18) is not justified properly.				
Project participant response				**Date:** 15/03/2017
The justification to eligibility criteria is elaborated as per requirement of methodology.				
Documentation provided by project participant				
PDD version-02				
DOE assessment				**Date:** 21/03/2017
Correction has been done in the revised PDD /02/ and found OK. Hence this CL is closed.				

CL ID	02	**Section no.**	D.7	**Date:** 20/07/2016
Description of CL				
PP is requested to justify the start date of the project activity mentioned in the section B.5 and C.1.1 of the CDM PDD to be the earliest date on which either which either the implementation or construction or real action of a CDM project activity or CPA begins. As per the CDM glossary of terms version 08.0, the start date defined as “In the context of a CDM project activity or CPA, the earliest date at which either the implementation or construction or real action of a CDM project activity or CPA begins.”.				
Project participant response				**Date:** 15/03/2017
The start date considered as purchase order for first WTG among all WTGs considered in project activity. Furthermore the construction and land acquisition in case wind project is only done after finalisation of WTG purchase order, as same is arranged by technology supplier itself. Hence no other activity, which can satisfy the start date criteria in this case. The first PO for WTG R22 was placed on 27/02/2015, which is considered as start date of the project activity.				
Documentation provided by project participant				
Purchase orders				
DOE assessment				**Date:** 21/03/2017
Validation team has checked the Purchase orders for all the WTGs of the project activity and found the PP response OK. Hence the considered start date i.e. 27/02/2015 (first PO for WTG R22) is accepted as earliest date on which either the implementation or construction or real action of a CDM project activity begins. Hence this CL is closed.				

CL ID	03	**Section no.**	D.8.6	**Date:** 20/07/2016
Description of CL				
Validation team checked the UNFCCC website (as per para 115 of the VVS version 09) for the PP intimation to UNFCCC about the intention to seek CDM status but could not found.				
Project participant response				**Date:** 15/03/2017

The prior initimation for proposed project activity is made in two phases, hence the project title in initial intimation was different, in second notification the first WTG was also renotified to UNFCCC, The webpage containing detail is attached herewith.

2MW wind power generation by ISC	Interocean Shipping Company	India	29 Apr 2015
2MW wind power generation by ISIPL	Interocean Shipping (I) Pvt. Ltd.	India	29 Apr 2015
9.5MW wind energy based power generation by Interocean Group	Interocean Shipping (I) Pvt. Ltd.	India	05 Dec 2015

Documentation provided by project participant

https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html

DOE assessment | **Date:** 21/03/2017

Prior consideration forms submitted to UNFCCC missing. Also DNA notification specifying the date of communication is missing. Hence this CL is open.

Project participant response | **Date:** 23/03/2017

The prior intimation form is attached along with response, as the prior intimation to DNA is done through online portal of DNA website, the screen shot of the page is also provided.

Documentation provided by project participant

Prior intimation form
Screen Shot of prior intimation details to DNA

DOE assessment | **Date:** 24/03/2017

Validation team has checked the Mail sent to UNFCCC along with prior consideration form /08/ dated 29/04/2015 and 05/12/2015 and also checked the screen shots of prior consideration sent to DNA on 29/04/2015 and 05/12/2015 /08/ and found OK. Hence this CL is closed.

CL ID	04	**Section no.**	D.8.8	**Date:** 20/07/2016

Description of CL

For the monitoring parameter "EGy" under the section B.7.1 of the CDM PDD,

1. The bold lines of the para "The net electricity exported to the grid by project activity WTG will be ascertained by government ….. and **meter readings at various transformer yard meters (near WTGs)**. On the basis …..Continuous monitoring, **hourly measurement** and monthly recording is carried out." under "Measurement methods and procedures" are not clear as during the site visit interview validation team has found that the apportioning of the electricity supplied to grid by the WTGs is done on the basis of the controller of the individual WTGs and the electricity supplied to grid measured at 220 kV side of transformers situated on the substation. Also the mentioned term "**hourly measurement**" is not clear against which meter.
2. The mentioned description "**Trivector (TVM)/ABT energy meters with accuracy class 0.2s**" under "QA/QC procedures" is not clear. PP is requested to clarify the location of the TVM/ABT meters.
3. Also under the heading "Additional comment", the bold lines "The energy meter at the substation is of 0.2S accuracy class. **Calibration of the TVM/ABT meter will be done at least once in 1 year and 3 years respectively** depending on type of meter. All the data will be archived till a period of two years from the end of the crediting period" is not clear. PP is requested to clarify the mentioned calibration frequency of 1 year and 3 year corresponds to which meter.
4. The calibration frequency of the TVM is mentioned once in a year under heading "additional comment" for the monitoring parameter "EGy" in section B.7.1 and once in three year under section B.7.3 of the PDD. PP is requested to clarify the discrepancy.

Project participant response | **Date:** 15/03/2017

1. The monitoring and apportioning procedure is corrected, which is done using energy meter installed after transformer and controller reading of individual WTGs. The same is also explained in B.7.3.
2. The QA/QC procedure has been corrected.
3. The same has been corrected as calibration will be performed at least once in three years, as the calibration is not in the control of PP.

4. The same has been corrected.
Documentation provided by project participant
PDD version-02
DOE assessment **Date:** 21/03/2017
1. The response is not clear. Now the description mentions monitoring on three places i.e. controller of the individual WTGs, transformer yard and the electricity supplied to grid measured at 220 kV side of transformers. Open. 2. Correction has been done in the revised PDD /02/ and found OK. Location of the meters is now made clear. Hence this part of CL is closed. 3. Correction has been done in the revised PDD and found OK. Calibration frequency has been defined now. Hence this part of CL is closed. 4. Inconsistency has been corrected now in the revised PDD and found OK. Calibration frequency has been defined now. Hence this part of CL is closed.
Project participant response **Date:** 23/03/2017
The monitoring procedure is corrected in revised PDD.
Documentation provided by project participant
PDD version-03
DOE assessment **Date:** 24/03/2017
Now the correction has been done in the revised PDD /02/ and found OK. Hence this CL is closed.

CL ID	05	**Section no.**	D.7	**Date:** 20/07/2016
Description of CL				
PP is requested to justify the lifetime of the project technology mentioned in the section C.1.2 of the PDD.				
Project participant response				**Date:** 15/03/2017
The lifetime of all WTGs used under project activity is 25 years, as per manufacturer specification.				
Documentation provided by project participant				
-				
DOE assessment				**Date:** 21/03/2017
The source of the lifetime found appropriate. Validation team has further cross-checked the value from MPERC tariff order /40/ applicable for the wind projects available at the time of decision making and found consistent. Hence this CL is closed.				

CL ID	06	**Section no.**	D.8.6	**Date:** 27/03/2017 based on TR comment.
Description of CL				
a) The loan repayment period is not consistent with the MPERC tariff order. The PP has considered it 08 years in contrast to 10 years provided in the tariff order. b) RoE sourced from the methodological tool, investment analysis (version 06) is no longer valid.				
Project participant response				**Date:** 30/03/2017
a) Loan repayment is made consistent with the tariff order. It was inadvertently considered as 08 years. The revised IRR sheets along with PDD are enclosed. b) RoE is now sourced from the latest valid version 7 of methodological tool, investment analysis.				
Documentation provided by project participant				
PDD version-03.1				
DOE assessment				**Date:** 31/03/2017
a) Loan repayment period is now sourced from the tariff order available at the time of decision making, the PDD and its annexures are revised accordingly and assessed appropriate by validation team. CL is closed. b) RoE is now updated by the PP from the valid version of methodological tool, 'Investment Analysis' (version 7). CL is closed.				

Table 2. CAR from this validation

CAR ID	01	**Section no.**	D.2	**Date:** 18/03/2016
Description of CAR				
PP has to submit the LoA from each party involved as per the requirement of para 81-83 of CDM Project Standard version 09.				

Project participant response	**Date:** 15/03/2017
The letter of approval from host country DNA is attached along with this response.	
Documentation provided by project participant	
Host Country Approval Letter dated 08/02/2017	
DOE assessment	**Date:** 21/03/2017
Validation team has checked the HCA from Indian DNA i.e. “Ministry of Environment, Forest and Climate Change” Government of India /05/ and found OK. Hence this CAR is closed.	

CAR ID	02	**Section no.**	D.5	**Date:** 18/03/2016
Description of CAR				
PP is requested to submit the Modalities of Communication along with the identity proof of signing authority.				
Project participant response				**Date:** 15/03/2017
The modalities of communication is attached along with this response.				
Documentation provided by project participant				
MoC				
DOE assessment				**Date:** 21/03/2017
Validation team has checked the submitted MoC along with the identity proof /06/ and found OK. Hence this CAR is closed.				

CAR ID	03	**Section no.**	D.7	**Date:** 18/03/2016
Description of CAR				
PP is requested to submit all the supportive documents as per the library attached.				
Project participant response				**Date:** 15/03/2017
All the supportive required is being provided.				
Documentation provided by project participant				
1. Offer letter by technology suppliers 2. Purchase order raised by PP 3. PLF assessment report 4. Land purchase/lease documents 5. Commissioning certificates				
DOE assessment				**Date:** 21/03/2017
Validation team has checked the submitted documents and found that the supportive documents i.e. offer letter, purchase order, commissioning certificate etc. for the WTG NPY-239 have not submitted yet. Hence this CAR is open.				
Project participant response				**Date:** 23/03/2017
During prior intimation the proposed site indicated by technology supplier was NPY239, however due to getting issues in clearance of power evacuation clearance the same could not be finalised and technology supplier later has arranged another location on same site i.e. NPY P-74, however the offer letter, purchase order and other details has not changed. Also being at same site the PLF value has also not changed.				
Documentation provided by project participant				
Offer letter from INOX Purchase order to INOX Clearance from Nodal agency Land details				
DOE assessment				**Date:** 24/03/2017
Validation team has checked the communication from Inox i.e. WTG supplier to PP dated 11/03/2016 /37/ in which project supplier state “Although, due to some unavoidable circumstances, we are compelled to commission your WTG on location no. P74, having same PLF, instead of location no NPY-239.”. Hence it is clear that only the location no. of the project WTG has changed. The prior intimation, decision making, purchase order have not changed. Hence PP response found OK. Validation team has checked the Offer letter, PO etc. Hence this CAR is closed.				

CAR ID	04	**Section no.**	D.6	**Date:** 20/07/2016
Description of CAR				
From the review of the UNFCCC website (https://cdm.unfccc.int/Reference/PDDs_Forms/index.html), validation team has found that the latest available CDM-SSC-PDD-FORM is version 08.0 however the form used for completing the PDD is version 06.0. Refer para 69 of VVS version 09.				
Project participant response				**Date:** 15/03/2017

The revised PDD is prepared using latest version available at UNFCCC website i.e. version-08.
Documentation provided by project participant
PDD version-02
DOE assessment **Date:** 21/03/2017
Revised PDD /02/ is now following the latest available CDM-SSC-PDD-FORM version 08.0 /27/. Hence this CAR is closed.

CAR ID	05 (Minor corrections)	**Section no.**	D.7	**Date:** 20/07/2016
Description of CAR				
1. The name of the wind turbine owners involved in the project activity is not consistent in the CDM PDD. 2. In the section B.4 of the CDM PDD, the mentioned PLFs i.e. 20.5%, 22.1%, 22.24% and 22.4 % belongs to which WTGs of the project activity.				
Project participant response				**Date:** 15/03/2017
1. Correction has been done 2. The PLF value is now mentioned against each WTG unique number.				
Documentation provided by project participant				
PDD version-02				
DOE assessment				**Date:** 21/03/2017
1. Correction not found. Hence this part of CAR is closed. 2. PLF assessment report for WTG no. RH-06 is still missing. Hence this CAR is open.				
Project participant response				**Date:** 23/03/2017
1. Checked and corrected 2. The wind resource assessment for Rh06 is attached herewith				
Documentation provided by project participant				
WRA for Rh06 dated 16/02/2015				
DOE assessment				**Date:** 24/03/2017
1. Corrections have been done and found OK. Hence this part of CAR is closed. 2. PLF assessment report is now submitted and found OK. Hence this part of CAR is closed.				

CAR ID	06	**Section no.**	D.8.1	**Date:** 20/07/2016
Description of CAR				
In the section B.1 of the CDM PDD, the version of the below mentioned tools/guideline is not valid as checked from the UNFCC website (https://cdm.unfccc.int/methodologies/SSCmethodologies/approved): 1. Tool to calculate the emission factor for an electricity system 2. Investment analysis 3. General guidelines for SSC CDM methodologies				
Project participant response				**Date:** 15/03/2017
1. The latest version of "Tool to calculate the emission factor for an electricity system" i.e. version-05 is applied in revised PDD and ER sheet. 2. Latest version of tool for Investment Analysis is also applied in revised PDD. 3. The latest version of General guidelines for SSC CDM methodology is referred in revised PDD.				
Documentation provided by project participant				
PDD version-02				
DOE assessment				**Date:** 21/03/2017
Now the latest versions of all the three tools/guideline have been used in the revised PDD /02/. Hence this CAR is closed.				

CAR ID	07	**Section no.**	D.8.4	**Date:** 20/07/2016
Description of CAR				
The project boundary diagram in the section B.3 of the PDD is not complying with actual metering arrangement as verified during the site visit.				
Project participant response				**Date:** 15/03/2017
The project boundary diagram is corrected as per actual arrangements on site in revised PDD.				
Documentation provided by project participant				
PDD version-02				
DOE assessment				**Date:** 21/03/2017

Correction has been done in the revised PDD /02/ and found OK. Hence this CAR is closed.

CAR ID	08	**Section no.**	D.9	**Date:** 20/07/2016
Description of CAR				
The PP is requested to correct the start date of the crediting period i.e. “01/05/2016 or the date of registration whichever is earlier” mentioned in the section C.2.2 of the PDD to be realistic.				
Project participant response				**Date:** 30/03/2017
The start date of crediting period is corrected as 05/05/2017 or date of registration whichever later.				
Documentation provided by project participant				
PDD version-03.1				
DOE assessment				**Date:** 21/03/2017
Correction has been done in the revised PDD /02/ and found OK. Hence this CAR is closed.				

CAR ID	09	**Section no.**	D.11	**Date:** 20/07/2016
Description of CAR				
In the section E.1 of the CDM PDD, PP is requested to demonstrate the different mode of invitations, invitees.				
Project participant response				**Date:** 15/03/2017
The PP has sent invitation letter to identified stakeholders is attached.				
Documentation provided by project participant				
Invitation letter				
DOE assessment				**Date:** 21/03/2017
Corrections not done. Not closed.				
Project participant response				**Date:** 23/03/2017
The relevant details incorporated in revised PDD.				
Documentation provided by project participant				
PDD Version-03				
DOE assessment				**Date:** 24/03/2017
Correction have done in the revised PDD /02/ and found consistent with the submitted LSC details /10/. Hence this CAR is closed.				

Table 3. FAR from this validation

No FAR from Validation

~~**FAR ID**~~	~~Xx~~	~~**Section no.**~~		~~**Date:** DD/MM/YYYY~~
~~**Description of FAR**~~				
~~**Project participant response**~~				~~**Date:** DD/MM/YYYY~~
~~**Documentation provided by project participant**~~				
~~**DOE assessment**~~				~~**Date:** DD/MM/YYYY~~

Document information

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