



RINA

VALIDATION REPORT


Final

“Wind Power Project at Jath, Maharashtra”
in
India


Report N°2012-IQ-MD-32

Revision N°1.2

VALIDATION REPORT

Project Title: Wind Power Project at Jath, Maharashtra		Country: India	Estimated CERs (tCO₂e): 143,315	
Client: ReNew Wind Energy (Jath) Private Limited		Client contact: Mr. Kishore Rathod		
Report No.: 2012-IQ-MD-32		Revision: 1.2	Date of this report: 09/04/2013	
Approved by (Final Report – Decision Maker):  Roberto Cavanna			Date of approval: 09/04/2013	
Methodology				
Number: ACM0002	Version: 13.0.0 of 11/05/2012	Title: Consolidated baseline methodology for grid-connected electricity generation from renewable sources	Scale Large	SS(s): 01
<p>RINA Services S.p.A. (RINA), commissioned by ReNew Wind Energy (Jath) Private Limited, has performed the validation of the project activity “Wind Power Project at Jath, Maharashtra” in India, with regard to the relevant requirements for CDM activities.</p> <p>In conclusion, it is RINA’s opinion that the project activity “Wind Power Project at Jath, Maharashtra”, in India, as described in the PDD version 03 dated 18/10/2012, meets all the relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology ACM0002, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13 of 11/05/2012.</p> <p>Hence RINA requests the registration of the project as a CDM project activity.</p>				

Work carried out by: Reghu Kumar Raghavan Nair Vijay Mathew Champok Buragohain Karthika Varma	<input checked="" type="checkbox"/> No distribution without permission from the Client or organizational unit responsible <input type="checkbox"/> Strictly confidential <input type="checkbox"/> Unrestricted distribution
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Work verified by (Final Report – Authorized officer signing for the DOE)  Laura Severino	Keywords: Climate Change, Kyoto Protocol, Clean Development Mechanism, Validation
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Abbreviations

BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CDM-PCP	Clean Development Mechanism Project Cycle Procedure
CDM-PS	Clean Development Mechanism Project Standard
CDM-VVS	Clean Development Mechanism Validation and Verification Standard
CEA	Central Electricity Authority
CER(s)	Certified Emission Reduction(s)
CERC	Central Electricity Regulatory Commission
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GPS	Global Positioning System
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MEDA	Maharashtra Energy development Agency
MoV	Means of Verification
MOC	Modalities of Communication Statement
MP	Monitoring Plan
MR	Monitoring Report
NEWNE	Northern Eastern, Western, Northeastern
NGO	Non-governmental Organization
ODA	Official Development Assistance
PAN	Permanent Account number
PDD	Project Design Document
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SS(s)	Sectoral Scope(s)
SSC	Small Scale
UNFCCC	United Nations Framework Convention on Climate Change

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Appendix A: Validation Protocol

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1 INTRODUCTION

ReNew Wind Energy (Jath) Private Limited has commissioned RINA to carry out the validation of the “Wind Power Project at Jath, Maharashtra” project in India.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The objective of the Validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the CDM as set out in decision 3/CMP.1, its annex and relevant decisions of the COP/MOP, on the basis of the project design document. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant UNFCCC requirements and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

1.2 Scope

The validation scope is to review the PDD against the UNFCCC criteria for CDM.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

Validation is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

2 METHODOLOGY

Validation was conducted using RINA procedures in line with the requirements specified in the CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

The validation consisted of the following three phases:

- Document review;
- Follow-up actions;
- The resolution of outstanding issues and the issuance of the final validation report.

The following sections outline each step in more detail.

2.1 Document Review

The PDD, version 03 of 18/10/2012, version 02 of 08/10/2012, version 01 of 10/07/2012/01/, in particular the applicability of the methodology, the baseline determination, the additionality of the project activity, the starting date of the project, the monitoring plan, the emission reduction calculations provided in the form of a spreadsheet version 03 (ER Sheet) submitted on 11/12/2012, version 02 (IRR_ER_Jath_Gamesha_08.10.2012) submitted on 08/10/2012, version 01 (1.-18. & 19.IRR_ER_Jath_Gamesha(20 Yrs)) submitted on 26/07/2012/**02/**, the financial analysis spreadsheet version 02 submitted on (IRR_ER_Jath_Gamesha_18.10.2012) submitted on 18/10/2012 version 01 (1.-18. & 19.IRR_ER_Jath_Gamesha(20 Yrs)) submitted on 26/07/2012/**03/**, were assessed as part of the validation.

The following table lists the documentation that was reviewed during the validation.

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/01/	ReNew Wind Energy (Jath) Private Limited: CDM-PDD for project activity "Wind Power Project at Jath, Maharashtra" in India, PDD version 01 of 10/07/2012; version 02 of 08/10/2012; version 03 of 18/10/2012.
/02/	ReNew Wind Energy (Jath) Private Limited: Emission Reduction Calculation Sheet (1.-18. & 19.IRR_ER_Jath_Gamesha(20 Yrs)) version 01 submitted on 26/07/2012; version 02 (IRR_ER_Jath_Gamesha_08.10.2012) submitted on 08/10/2012; ; version 03 (ER Sheet) submitted on 11/12/2012.
/03/	ReNew Wind Energy (Jath) Private Limited: Financial analysis spreadsheet (1.-18. & 19.IRR_ER_Jath_Gamesha(20 Yrs)) version 01 submitted on 26/07/2012; version 02 submitted on (IRR_ER_Jath_Gamesha_18.10.2012) submitted on 18/10/2012.
/04/	CDM Executive Board: Clean Development Mechanism Project Cycle Procedure, version 02.0, Annex 64, EB66 of 02/03/2012
/05/	CDM Executive Board: Clean Development Mechanism Project Standard, version 01.0, Annex 5, EB65 of 25/11/2011
/06/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 02.0, Annex 4, EB65 of 25/11/2011
/07/	CDM Executive Board: Baseline and monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of 11/05/2012
/08/	CDM Executive Board: "Guidelines for completing the project design document form" version 01.0 dated 02/03/2012, Annex 8 of EB 66.
/09/	CDM Executive Board: Methodological "tool for the demonstration and assessment of additionality", version 06.1.0 dated 13/09/2012, Annex 20 of EB 69
/10/	CDM Executive Board: Methodological "tool to calculate the emission factor for an electricity system", version 02.2.1 dated 29/09/2011, Annex 19 of EB 63
/11/	CDM Executive Board: Glossary of CDM terms, version 06.0, Annex 63, EB 66 dated 02/03/2012
/12/	UNFCCC: Status of ratification of the Kyoto Protocol, website " http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php " in English language retrieved on 26/06/2012
/13/	UNFCCC: Website indicating the list of DNAs " http://cdm.unfccc.int/DNA/index.html " in English language retrieved on 26/06/2012
/14/	CDM-Executive Board: Project Design Document Form for CDM Project Activities (F-CDM-PDD) version 04.0, dated 13/03/2012 and version 04.1 dated 11/04/2012
/15/	Central Electricity Authority (CEA): CO ₂ Baseline Database for the Indian Power Sector User Guide, Version 7.0, January 2012.
/16/	Terms sheet between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012.
/17/	Terms sheet between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012.
/18/	M/s ReNew Wind Power Private Limited: Certified true copy of resolution passed at the meeting of the Board of Directors of M/s ReNew Wind Power Private Limited held on 23/03/2012
/19/	M/s ReNew Wind Power Private Limited: Copy of e-mail sent to UNFCCC and NCDMA for prior CDM consideration dated 16/06/2012
/20/	UNFCCC: Copy of e-mail acknowledgement received from UNFCCC dated 18/06/2012
/21/	NCDMA: Copy of e-mail acknowledgement received from NCDMA dated 26/06/2012



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/22/	<p>MERC: Tariff order (Case No 39 of 2011) for renewable energy by MERC dated 29/04/2011</p> <p>http://www.mercindia.org.in/pdf/Order%2058%2042/Order_Case%20No.%20153%20of%202011%20Dt%2012-01-2012.pdf</p> <p>The website was in English language and last retrieved on 01/11/2012</p>
/23/	M/s ReNew Wind Power Private Limited: Copy of e-mail sent to Mr. Samrat Sengupta for engagement of CDM consultant for their CDM projects dated 16/04/2012
/24/	M/s Garrad Hassan India Private Limited: Assessment of the energy production of the proposed Jath wind farm by M/s ReNew Wind Power Private Limited dated 18/05/2012
/25/	M/s Gamesa Wind Turbines Private Limited: Proposal for a 50 MW wind power project consisting 25 numbers of G97-2.0 MW Wind Turbine Generators to be installed at site Jath in the state of Maharashtra dated 06/03/2012.
/26/	M/s Gamesa Wind Turbines Private Limited: Proposal for a 24.65 MW wind power project consisting 29 numbers of G58-0.85 MW Wind Turbine Generators to be installed at site Jath in the state of Maharashtra dated 06/03/2012.
/27/	CDM-Executive Board: Modalities of communication statement (F-CDM-MOC), version 02.1 dated 16/03/2012
/28/	CDM Executive Board: "Guidelines on the assessment of investment analysis", version 05, annex 5, EB 62 dated 15/07/2011
/29/	UNFCCC: "Prior consideration of the CDM" section of UNFCCC to cross check prior CDM consideration of the project activity; website "http://cdm.unfccc.int/Projects/PriorCDM/notifications/index.html" in English language retrieved on 02/07/2012
/30/	CDM Executive Board: "Guidelines for the reporting and validation of plant load factors" version 01 annex 11 of EB 48 dated 17/07/ 2009.
/31/	Ministry of Environment & Forest (MoEF); Notification under Environment (Protection) Rules, 1986, dated 14/09/2006 and further amendment on 01/12/2009
/32/	National CDM Authority, Ministry of Environment and Forests (Govt. of India): Host country approval process website "http://www.cdmindia.gov.in/detail_news.php?id=3" in English language retrieved on 02/07/2012.
/33/	Central Electricity Authority; Notification for regulating the installation and operation of meters dated 17/03/2006, website http://www.cea.nic.in/reports/regulation/meter_reg.pdf in English language retrieved on 02/11/2012.
/34/	Maharashtra Energy development Agency: Transfer of Infrastructure Clearance Capacity form M/s Gamesa Wind Turbine Pvt. Ltd. Chennai to M/s Renew Wind Energy (Jath) Pvt. Ltd., Delhi dated 26/09/2012/, 27/09/2012, 28/09/2012 and 29/09/2012.
/35/	M/s ReNew Wind Energy (Jath) Private Limited: Copy of project's Land details certified by public notary dated 19/10/2012
/36/	Minutes of Local Stakeholder Consultation Meeting for the project Wind Power Project at Jath, Maharashtra dated 26/06/2012.
/37/	Attendance sheet of Minutes of Local Stakeholder Consultation Meeting for the project Wind Power Project at Jath, Maharashtra dated 26/06/2012.
/38/	RINA Services S.p.A; Onsite visit interview sheet dated 14/08/2012
/39/	Centre for wind energy technology:

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	http://www.cwet.tn.nic.in/Docu/RLMM_Main_List_dated_31.07.2012.pdf The website was in English language and last retrieved on 14/11/2012
/40/	General Characteristics Manual: Characteristics general operation for Gamesa G% ^X -850 kW 50Hz-60Hz wind turbine dated 01/08/2011. Det Norske Veritas certified technical specification for the project G-97-2 MW WTG issued on 30/12/2011.
/41/	Ministry of Law and Justice, Govt. of India: The Electricity Act 2003 dated 23/05/2003
/42/	Ministry of Power, Govt. of India: National Electricity Policy dated 12/02/2005
/43/	Ministry of Power, Govt. of India: Tariff Policy dated 06/01/2006
/44/	ReNew Wind Energy (Jath) Private Limited : Host Country Approval from National CDM Authority, Ministry of Environment & Forest, Government of India to "Wind Power Project at Jath, Maharashtra" Ref. No. 4/15/2012-CCC dated 12/12/2012.
/45/	Modalities of communication statement signed by the PP dated 20/09/2012
/46/	Identity proof of the authorized primary signatory and alternate authorised (PAN card) for the project proponent issued by Income Tax Department, Government of India.
/47/	a. ReNew Wind Energy (Jath) Private Limited: Payment issued Gamesa Wind Turbine Private Limited towards reservation fee dated 23/05/2012. b. Bhandari Datur Gupta & Associates, Chartered Accountants: Certificate on the payments made to M/s Gamesa Wind Turbine Private Limited by M/s Renew Wind Energy (Jath) Private Limited dated 03/10/2012.
/48/	M/s. ReNew Wind Energy (Jath) Private Limited: Plan for sharing 2% of the CER revenue, dated 21/07/2012.
/49/	Corporate Finance, Theory and Practice (2 nd Edition, 2009) by Aswath Damodaran
/50/	Reserve Bank of India: http://www.rbi.org.in/scripts/AboutusDisplay.aspx http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/RBIB140520012.pdf The website was in English language and last retrieved on 01/11/2012
/51/	Web link for Inflation Rate: http://rbi.org.in/scripts/PublicationsView.aspx?id=14022 The website was in English language and last retrieved on 01/11/2012
/52/	Institute for Global Environmental Strategies Web site: http://www.iges.or.jp/en/cdm/report_cdm.html The website was in English language and last retrieved on 23/11/2012
/53/	Chattisgarh State Renewable Energy Development Agency: http://www.credacg.org/bpg_projects_commissioned.htm The website was in English language and last retrieved on 23/11/2012
/54/	Karnataka Renewable Energy Development Ltd. Web site: http://www.kredltest.in/Bioreport.aspx http://www.kredltest.in/cogenreportallnew.aspx

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	The website was in English language and last retrieved on 23/11/2012
/55/	Punjab Energy Development Agency (PEDA) Web site: http://peda.gov.in/eng/cogeneration.html
	The website was in English language and last retrieved on 23/11/2012
/56/	Tamil Nadu Energy Development Agency (TEDA) Website: http://www.teda.in/index.php?r=site/index&id=2O8i9U4E3U
	The website was in English language and last retrieved on 23/11/2012.
/57/	Central Electricity Regulatory Commission (CERC): Copy of tariff order dated 09/11/2010
/58/	Web link for Tax Rate: http://www.oifc.in/Uploads/MediaTypes/Documents/Union_Budget_Analysis_2011-2012.pdf
	The website was in English language and last retrieved on 14/11/2012.
/59/	Web link for Indian Company Act; http://www.docstoc.com/docs/54501925/DEPRECIATION-AS-PER-COMPANIES-ACT1956
	The website was in English language and last retrieved on 25/10/2012.
/60/	M/s. ReNew Wind Energy (Jath) Private Limited: Declaration ensuring that no ODA for the project investment dated 21/07/2012
/61/	M/s. ReNew Wind Energy (Jath) Private Limited: The company's Act, 1956, Company Limited by Shares, Memorandum of Association dated 11/04/2012
/62/	Request for Validation/Verification/Assessment of a greenhouse gases project/programme of activity proposed to RINA, signed between RINA and Renew Wind Power Private Limited dated 02/05/2012.

2.2 Follow-up actions

On 14/08/2012, RINA visited Jath wind farm site, District Sangli of Maharashtra for validation site visit of the project activity. The objective of the site visit was physical inspection of the project location and to resolve questions and issues identified during the document review and to perform interviews with relevant stakeholders in the host country.

The key personnel interviewed and the main topics of the interviews are summarized in the table below.

	Date	Name and Role	Organization	Topic
/a/	14/08/2012	Mr. Kishor Rathod (Manager, Carbon Assets and Finance)	ReNew Wind Energy (Jath) Private Limited	Project Description, CDM consideration, Baseline identification, Project Boundary. project financing, Additionality, Baseline

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				Calculation, etc.
/b/	14/08/2012	Mr. Suresh Shinde (Sr. Manager)	Gamesha Wind Turbines Private Limited	Regulatory requirements, project status, Monitoring procedures & Calibration of meters, Operation and Maintenance, Data recording, Emergency procedures, etc.
/c/	14/08/2012	Mr. Anis Mubarak (Site Engineer)	Gamesha Wind Turbines Private Limited	Monitoring procedures & Calibration of meters, Operation and Maintenance, Data recording, Emergency procedures, etc.
/d/	14/08/2012	Mr. Mohan Inamdar Local Stakeholder,	Jath village	Mode of Invitation for stakeholders meeting, Stakeholders meeting consultation, advantages and disadvantages of the project, employment generation, etc.
/e/		Mr. Sachin Hendre	Jath Village	
/f/		Mr. Ramesh Sonitar	Jath Village	
/g/		Mr. Lakshman J	Billur Village	
/h/		Mr. Gurdd Vankade	Yeldari Village	
/i/	14/08/2012	Mr. T. Vijay	Gamesha Wind Turbines Private Limited	Operation and Maintenance
/j/	14/08/2012	Mr. Prabhakara	Gamesha Wind Turbines Private Limited	Operation and Maintenance
/k/	14/08/2012	Mr. M. Shanmugam	Gamesha Wind Turbines Private Limited	Operation and Maintenance

2.3 Resolution of outstanding issues

The objective of this phase of the validation is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the project design.

To guarantee transparency a validation protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of validation and the results from validating the identified criteria. The validation protocol consists of four tables; the different columns in these

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tables are described in the figure below (see Figure 1). The completed validation protocol is enclosed in Appendix A to this report.

A corrective action request (CAR) is raised if one of the following occurs:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The CDM requirements have not been met.
- There is a risk that the emission reductions cannot be monitored or calculate.

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A forward action request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration. CARs, CLs and FARs identified are included in the validation protocol in Appendix A of this report.

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Figure 1 Validation protocol tables

Validation Protocol, Table 1 - Mandatory requirement		
Requirement	Reference	Conclusion
The requirements the project must meet.	Makes reference to the documents where the answer to the requirement is found.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) if a requirement is not met. A request for clarification (CL) is used when the validation team has identified a need for further clarification.

Validation Protocol, Table 2 - Requirement checklist				
Checklist Question	Ref.	MoV	Comments	Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in five different sections.	Makes reference to documents where the answer to the checklist question or item is found.	Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable.	The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far.	For CAR, CL and FAR see the definitions above. OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements.

Validation Protocol, Table 3 - Resolution of Corrective Action Requests and Clarification			
Corrective action requests and/or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
The CAR and/or CLs raised in table 2 are repeated here.	Reference to the checklist question number in Table 2 where the CAR or CL is explained.	The responses given by the project participants to address the CARs and/or CLs.	The validation team's assessment and final conclusion of the CARs and/or CLs.

Validation Protocol, Table 4 - Forward Action Requests (if no FAR the table 4 is deleted)

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Forward action request	Reference to Table 2	Response by project participants Validation Conclusion
The FAR raised in table 2 is repeated here.	Reference to the checklist question number in Table 2 where the FAR is explained.	Response by the project participants on how forward action request will be addressed prior to first verification.

2.4 Internal quality control

All the revisions of the validation report before being submitted to the client were subjected to an independent internal technical review to confirm that all validation activities had been completed according to the pertinent RINA instructions.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for CDM validation and verification.

2.5 Validation team and the technical reviewer(s)

The validation team and the technical reviewers consist of the following personnel:

Role/Qualification	Last Name	First Name	Country
Team Leader CDM	Raghavan Nair	Reghu Kumar	India
CDM Validator	Mathew	Vijay	India
Technical Expert CDM	Buragohain	Champok	India
Financial Expert	Varma	Karthika	India
Technical Reviewer	Valoroso	Rita	Italy
Technical Reviewer in training	Alfieri	Felice	Italy

3 VALIDATION FINDINGS

The findings of the validation related to the project, as described in the PDD version 01 of 10/07/2012; version 02 of 08/10/2012; version 03 of 18/10/2012/**01/**, are stated in the following sections.

The validation requirements, the means of validation and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

3.1 Approval and Participation

The project participant is M/s. ReNew Wind Energy (Jath) Private Limited and is a private entity; the project is a unilateral project and hence the host country (India) is the only Party involved in the proposed project activity. Host country India fulfils the requirements to participate in the CDM, having ratified the Kyoto Protocol on 26/08/2002 and establishing as DNA - Ministry of Environment and Forests as per the UNFCCC website/**12/13/**. The project participant is a private entity and correctly listed in table A.4 of the PDD and the information is consistent with the contact details provided in Appendix 1 of the latest PDD/**01/**.

The DNA of India issued a Letter of Approval on 12/12/2012, approving participation of M/s. ReNew Wind Energy (Jath) Private Limited as a project participant and confirming that the project assists in achieving sustainable development/**44/** in India. The Letter of Approval was received directly by the PP and refers to the precise project activity in the PDD **/01/**. RINA also confirmed that the LoA

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refers to the proposed CDM project activity and the title is in line with the title mentioned in the PDD i.e. “Wind Power Project at Jath, Maharashtra”. The letter of approval does not refer to any specific version of the validation report. By checking the original LoA document/44/ RINA considers the LoA in accordance with paragraphs 39-42 of the VVS version 2.0 /06/ by checking the original LoA and hence RINA has no doubt on the authenticity of the LoA for the project activity.

The proposed project does not involve any public funding from an Annex I Party, and the validation did not reveal any information that indicated that the project could be seen as a diversion of official development assistance (ODA) funding towards the host country. The validation team has confirmed the same from the declaration from the PP on no-use of ODA for the project activity/60/.

Project participants	M/s. ReNew Wind Energy (Jath) Private Limited
Parties involved	India
LoA received	Yes
Date of LoA	12/12/2012
LoA received from	Directly received from PP
Validation of authenticity	Checked with the original LoA document/44/.
Validity of LoA	Yes
Party is party to Kyoto Protocol	Yes
Voluntary participation	Yes
Project contribution to SD	Yes

3.2 Modalities of communication

The MoC dated 20/09/2012/45/ was provided by ReNew Wind Energy (Jath) Private Limited with whom RINA has a contractual relationship confirmed by the request of services signed on 02/05/2012 /62/. The corporate identity of all PPs and focal points included in the MoC statement, as well the personal identities, the signatures and the related authorized signatures, and the employment status have been cross-checked through from the copy of PAN Card/46/.

RINA confirms that the MoC statement provided by the PP/45/ is based on the currently valid form “Modalities of Communication Statement” (F-CDM-MOC) /27/, the information required by the form including its Annex 1 is correctly completed, and the PP(s) authorized signatories signing the MoC correspond to the PP(s) authorized signatories included in Annex 1.

In conclusion, RINA confirms that the MoC statement provided by the PP(s) is in accordance with the requirements in para 53-55 as well it is in accordance with the requirements in para 60 of the CDM-VVS/06/.

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3.3 Project design document

The PDD for the project activity “Wind Power Project at Jath, Maharashtra” version 01 of 10/07/2012, version 02 of 08/10/2012, version 03 of 18/10/2012 submitted by the ReNew Wind Energy (Jath) Private Limited have been the basis for the validation process.

RINA thus confirms that the latest PDD/**01/** is based on the currently valid PDD template/**14/** and is completed in accordance with the applicable guidance document “Guidelines for completing the project design document form” (version 01.0), dated 02/03/2012 **/08/**.

The main changes between the PDD version 01 of 10/07/2012 published for GSC and the PDD version 03 of 18/10/2012 submitted for registration are the following:

Section of the PDD	Description and reason for changing the information in that section
A.1	Emission reduction has been corrected
A.3	Technical specifications have been updated.
B.2	Applicability criteria of methodology have been made in-line with the criteria mentioned in the methodology.
B.3	The project boundary has been made in-line with the methodology.
B.4	Included the data/source used for the establishment and description of baseline scenario.
B.5	Corrected the source of the input parameters and the favorable scenarios where the Equity IRR will cross the benchmark have been explained.
B.5	Updated common practice in-line with tool to demonstration and assessment of additionality”, Version 6.1.0.
B.6	Emission reduction has been corrected.
B.7	Measurement methods and procedures of the monitoring parameters have been updated.
Annexure 1	Wind Turbine wise geo-coordinates of the Project have been updated.
Annexure 2	CER sharing mechanism has been incorporated.

3.4 Project Design

Purpose and general description of the project activity:

The purpose of the project activity is to generate electricity from wind energy and export to NEWNE grid which replaces equivalent amount of electricity from fossil fuel dominated grid, as confirmed with the CEA database/**15/**. The project is an initiative by ReNew Wind Energy (Jath) Private Limited, which is a special purpose vehicle of ReNew Wind Power Private Limited, who holds almost all the equity in the company **/61/**. The project activity involves 54 Wind Turbine Generators (WTGs); in which 29 numbers of G58/0.85 MW capacity WTGs and 25 numbers of G 97/2.0 MW Capacity WTGs. The project is developed at Jath Mandal of Sangli district in Maharashtra, India. The proposed total installed capacity of the project activity is 74.65 MW which is confirmed from the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/** and from interview with technology supplier at the WTG installation site.

Project location:

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The project is located in Jath Tehsil of Sangli district in Maharashtra. WTG wise location details are presented below:

Sr No.	Turbine ID	District	State	Latitude (N)	Longitude (E)
1	GR1	Sangli	Maharashtra	N 18.77225	E 52.1109
2	GR2	Sangli	Maharashtra	N 18.77912	E 52.4292
3	GR3	Sangli	Maharashtra	N 18.74517	E 52.5909
4	GR4	Sangli	Maharashtra	N 18.74691	E 52.5909
5	GR5	Sangli	Maharashtra	N 18.75966	E 52.1739
6	GR6	Sangli	Maharashtra	N 18.75382	E 52.5750
7	GR7	Sangli	Maharashtra	N 18.77052	E 52.1092
8	GR8	Sangli	Maharashtra	N 18.71092	E 52.4906
9	GR9	Sangli	Maharashtra	N 18.74863	E 52.5890
10	GR10	Sangli	Maharashtra	N 18.78863	E 52.4056
11	GR11	Sangli	Maharashtra	N 18.76122	E 52.1662
12	GR12	Sangli	Maharashtra	N 18.75209	E 52.5797
13	GR13	Sangli	Maharashtra	N 18.75036	E 52.5843
14	GR14	Sangli	Maharashtra	N 18.77011	E 52.5117
15	GR15	Sangli	Maharashtra	N 18.76705	E 52.1057
16	GR16	Sangli	Maharashtra	N 18.77783	E 52.4410
17	GR17	Sangli	Maharashtra	N 18.75555	E 52.5703
18	GR18	Sangli	Maharashtra	N 18.71218	E 52.4778
19	GR19	Sangli	Maharashtra	N 18.76879	E 52.1074
20	GR20	Sangli	Maharashtra	N 18.77140	E 52.4999
21	GR21	Sangli	Maharashtra	N 18.77526	E 52.4646
22	GR22	Sangli	Maharashtra	N 18.72842	E 52.2798
23	GR23	Sangli	Maharashtra	N 18.77745	E 52.1161
24	GR24	Sangli	Maharashtra	N 18.77397	E 52.4764
25	GR25	Sangli	Maharashtra	N 18.77269	E 52.4882
26	GR26	Sangli	Maharashtra	N 18.75728	E 52.5656
27	GR27	Sangli	Maharashtra	N 18.78298	E 52.3938
28	GR28	Sangli	Maharashtra	N 18.76882	E 52.5235
29	GR29	Sangli	Maharashtra	N 18.73019	E 52.2824
30	GJ I-01	Sangli	Maharashtra	N 18.83430	E 52.7415
31	GJ I-02	Sangli	Maharashtra	N 18.84014	E 52.7210
32	GJ I-03	Sangli	Maharashtra	N 18.84480	E 52.6911
33	GJ I-04	Sangli	Maharashtra	N 18.85011	E 52.6574
34	GJ I-05	Sangli	Maharashtra	N 18.85479	E 52.6354
35	GJ I-06	Sangli	Maharashtra	N 18.85923	E 52.5992
36	GJ I-07	Sangli	Maharashtra	N 18.86392	E 52.5898
37	GJ I-08	Sangli	Maharashtra	N 18.86889	E 52.5657
38	GJ I-09	Sangli	Maharashtra	N 18.87592	E 52.5270
39	GJ I-10	Sangli	Maharashtra	N 18.88566	E 52.5593
40	GJ I-11	Sangli	Maharashtra	N 18.88198	E 52.5978
41	GJ I-12	Sangli	Maharashtra	N 18.87838	E 52.6517
42	GJ I-13	Sangli	Maharashtra	N 18.85523	E 52.8172
43	GJ I-14	Sangli	Maharashtra	N 18.85068	E 52.8325
44	GJ I-15	Sangli	Maharashtra	N 18.84539	E 52.8535
45	GJ I-16	Sangli	Maharashtra	N 18.88873	E 52.7175
46	GJ I-17	Sangli	Maharashtra	N 18.87892	E 52.9491
47	GJ I-18	Sangli	Maharashtra	N 18.85854	E 52.9486
48	GJ I-19	Sangli	Maharashtra	N 18.84815	E 53.0453
49	GJ I-20	Sangli	Maharashtra	N 18.88191	E 53.0716

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50	GJ I-21	Sangli	Maharashtra	N 18.87590	E 53.0865
51	GJ I-22	Sangli	Maharashtra	N 18.87100	E 53.0953
52	GJ I-23	Sangli	Maharashtra	N 18.86535	E 53.1165
53	GJ I-24	Sangli	Maharashtra	N 18.85389	E 53.1502
54	GJ I-25	Sangli	Maharashtra	N 18.86168	E 53.2157

During the site visit the all WTGs were not erected and therefore the GPS coordinates of all WTGs were not confirmed during the site visit. However, three of the erected WTG locations were checked by the validation team with GPS device during the site visit and are found to be correct with the co-ordinates provided in the PDD. The other details such as village name, taluka name and district name of WTGs are checked with the MEDA approvals issued for the WTGs of the project activity and were found appropriate/34/35/.

Scenario existing prior to the implementation of the project activity:

In the absence of the project activity the equivalent amount of power would have been generated in the fossil fuel dominated NEWNE grid. This is evident from the electricity generation scenario of the host country that the NEWNE grid is dominated by fossil fuel based power plants/15/. Hence, it is confirmed that electricity equivalent to the project activity would have been generated in NEWNE grid from other power plants added to the NEWNE grid.

Technology(ies) employed:

The project activity involves the implementation of 54 wind energy converters (WECs) of G58 make 850 kW and G97 make 2000 kW manufactured by Gamesa Wind Turbines Private Limited. RINA confirms the technology implemented reflects the current good practice in the host country. Implementation of the project activity doesn't involve any technology transfer from Annex-1 countries to host country. The same has been confirmed from the list of models and manufactures of wind turbines published by Centre for Wind Energy Technology/39/. The technology given in the PDD is consistent with the actual planning and implementation of the project activity. The validation team confirmed the the manufacturer, and capacities through personal inspection of the erected WECs during the site visit and cross verifying with the term sheet signed between PP and Gamesa Wind Turbines Private Limited/16/17/. The annual gross energy generation of the project is estimated to be 150,405 MWh/year based on PLF of 23.00% /22/. The PLF has been verified by RINA against the independent third party report prepared by Garrad Hassan India Private Limited/24/. RINA could confirm that the PLF considered by PP is conservative and in line with the requirement of CDM EB "guideline for the reporting and validation of plant load factors"/30/.

Project implementation:

The starting date of the project activity is 23/05/2012, when project proponent has released the initial payment to the Technology Supplier /47 a/, which is also certified by the chartered accountant /47 b/. It has been verified by RINA that the starting date represents the real action to start the project activity, as it is the earliest date on which the project participant has committed to expenditures related to the implementation or related to the construction of the project activity as per the Glossary of CDM Terms/11/. During the site visit on 14/08/2012 it was observed by the validation team that three of the WTGs (GR28, GJ I-02 and GJ I-24) were already erected and the preparations are on for erection of the remaining WTGs/38/.

Crediting period and estimated Emission Reductions:

The expected operational lifetime of the project activity is 20 years and this has been confirmed from General Characteristics Manual: Characteristics general operation for Gamesa G%~~X~~-850 kW 50Hz-60Hz wind turbine dated 01/08/2011 and Det Norske Veritas certified technical specification for the project G-97-2 MW WTG issued on 30/12/2011/40/. Renewable crediting period is chosen for the project activity and the length of first crediting period is 7 years starting from 01/01/2013, or the date of

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registration of the project activity under UNFCCC, whichever is later. The GHG emission reductions are estimated to be average 143,315 tCO₂e per year and 1,003,205 tCO₂e over the 7 years crediting period.

Contribution to sustainable development:

The project activity contributes towards the sustainable development of the host country. In line with the host country approval requirements/**32/** PP has committed expenditure of 2% of CER revenue in sustainable development activities and the same arrangements are outlined in latest PDD in Appendix **7/01/48/**.

RINA was able to verify all the documented evidence listed above during the validation process and can confirm that data and considerations are complete and accurate. Moreover RINA confirms that the description of the proposed CDM project activity, as contained in the PDD sufficiently covers all relevant elements, is accurate and complete and that it provides the reader with a clear understanding of the nature of the proposed CDM project activity.

3.5 Application of selected baseline and monitoring methodology

The project correctly applies the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012/**07/**.

The proposed project activity meets the criteria defined in the baseline methodology as described below:

- The proposed activity is a, Greenfield project, which involves the installation of a new grid-connected renewable power generation facility (i.e. 74.65 MW wind farm). RINA confirmed the same from the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/**. Hence the methodology is applicable to the proposed project activity.
- The proposed project activity is the installation of a new 74.65 MW wind farm with brand new 29 numbers of G58/0.85 MW capacity WTGs and 25 numbers of G 97/2.0 MW Capacity WTGs. There is no capacity addition, retrofitting or replacements in the proposed project activity. RINA confirmed the same through the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/**.
- The proposed project activity is not hydro power project. RINA confirmed the same through the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/** and the physical inspection of the three erected WTGs during the site visit **/38/** and the clearance from Maharashtra Energy development Agency **/34/**.
- The proposed project activity is not fuel switch project from fossil fuels to renewable energy sources, biomass fired power plants and the hydro power plant. RINA confirmed the same through the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/** and the physical inspection of three erected WTGs during the site visit **/38/** and the clearance from Maharashtra Energy development Agency **/34/**.

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- The proposed project activity does not involve any retrofication, replacements or capacity addition. RINA confirmed the same through the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/**16/17/** and the physical inspection of three erected WTGs during the site visit **/38/** and the clearance from Maharashtra Energy development Agency **/34/**.

The project activity applies the following methodological tools:

- Methodological “tool to calculate the emission factor for an electricity system” version 02.2.1 of 29/09/2011 **/10/**.
- Methodological “tool for the demonstration and assessment of additionality” version 06.1.0 of 13/09/2012 **/09/**.

RINA hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for registration. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology.

3.6 Project boundary

According to the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012 **/07/** “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 generated electricity will be delivered to the NEWNE grid through the connected sub-station. The project activity falls under NEWNE grid/**15/** and the baseline for this project activity is a function of generation mix of the NEWNE grid. The selection of NEWNE grid as the grid system boundary for the project activity is in line with the methodology.

Emissions sources included in the project boundary are shown in the table below:

	GHGs involved	Description
Baseline emissions	CO ₂	Net electricity delivered to the NEWNE grid by the project activity that would otherwise have been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.
Project emissions	N/A	The project activity does not have any project emission.
Leakage	N/A	The project activity does not have any leakage emission since there is no transfer of equipment to or from the project activity. The project activity is a new project activity which is confirmed from the term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW & 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 16/17/

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Emission sources which are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction have not been identified because the project activity is a Greenfield wind power project and involves mainly assembly and erection of pre fabricated components.

By checking the information and the project site, RINA can confirm that the project boundary and emission sources described in the PDD are accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

3.7 Baseline scenario identification

According to the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012 **/07/**, the following is the baseline scenario for a new grid-connected renewable power plant/units:

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 as reflected in the combined margin (CM) calculations described in the “tool to calculate the emission factor for an electricity system”**/19/**.

Since the approved methodology that is applied prescribes the baseline scenario, no further analysis is required, according to paragraph 115 of the CDM-VVS, version 02.0 **/06/**.

The relevant National Acts and regulations pertaining to generation of energy in India are:

Electricity Act 2003 **/41/**

National Electricity Policy 2005 **/42/**

Tariff Policy 2006 **/43/**

The above mentioned National Acts and regulations pertaining to generation of energy in India does not influence the choice of fuel used for power generation. There is no legal requirement on the choice of a particular technology for power generation.

RINA was able to verify all the documented evidence such as CO₂ Baseline Database for the Indian Power Sector user guide version 07/**15/**, applied methodology ACM0002 version 13.0.0 of 11/05/2012 **/07/**, latest PDD/**01/**, and emission reduction calculation spreadsheet **/02/** during the validation process and can confirm that:

All the assumptions and data used by the project participants are listed in the latest PDD/**01/**, including their references and sources;

The approved baseline methodology “ACM0002”, version 13.0.0 of 11/05/2012 **/07/** 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.

3.8 Additionality

According to the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, 13.0.0 of 11/05/2012 **/07/**, the additionality of the project has been established applying the tool “Tool for the demonstration and assessment of additionality”, version 06.1.0/**09/**.

The additionality of the proposed project activity is further explicitly explained in the following steps.

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3.9 Prior consideration of the clean development mechanism

Project starting date:

The starting date of the project activity is 23/05/2012, when the PP release the initial payment to the technology supplier, as it is the earliest date when the PP committed itself to expenditures related to the implementation of the project activity/47a/. This is further confirmed from the CA certificate clarifying the expenses incurred for the project activity /47 b/. RINA thus confirms that the starting date of the project activity is in line with the Glossary of CDM terms /11/, and is the first real action taken by PP to implement the project activity.

Prior consideration of CDM:

Since, the project start date is after 02/08/2008 and the identified start date is prior to 14/07/2012 when the PDD was published for global stakeholder consultation, the PP needs to demonstrate that the CDM was seriously considered in the decision to implement the project activity, that the benefits of CDM were a decisive factor in the decision to proceed with the project and that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. To confirm the prior consideration of CDM, RINA noted that PP had duly sent a notification letter of prior CDM consideration to both the DNA of India and the UNFCCC secretariat of the commencement of the project activity and of their intention to seek CDM status, using the standardized form F-CDM-Prior Consideration. The notification letter to Indian DNA and to the UNFCCC secretariat was sent on 16/06/2012/19/. The acknowledgement e-mail was received from UNFCCC on 16/06/2012/20/ and acknowledgement e-mail was received from NCDMA on 26/06/2012/21/. Further, the notification is available at UNFCCC website indicating receiving date of prior CDM consideration notification as 16/06/2012/29/. Such notifications were made within six months of the project activity start date.

Based on the above assessment, the RINA hereby confirms that the proposed CDM project activity complies with the requirements of the latest version of the Guidelines on the demonstration and assessment of prior consideration of CDM version 04 dated 15/06/2011 (Annex 13 of EB 62)/31/.

In conclusion, in accordance with paragraph 27 of the “Clean development mechanism project standard”, version – 01, annex 5, EB 65 report /05/ and paragraph 107 Clean development mechanism validation and verification standard, annex 4, EB 65 report /06/, RINA can confirm that the CDM was considered necessary in the decision to implement the project activity.

3.10 Identification of alternatives

According to the approved baseline methodology ACM0002 /07/ the baseline scenario for a new grid-connected renewable power plant/unit is 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 as reflected in the combined margin (CM) calculations described in the “tool to calculate the emission factor for an electricity system” /10/.

Since the baseline is prescribed in the approved methodology no further analysis is required as per para 115 of the CDM-VVS /06/. The project proponent has justified the selection of the baseline scenario in line with the applied methodology and the same is deemed reasonable.

3.11 Investment analysis

Choice of approach:

The PP has chosen to apply investment analysis to demonstrate the additionality of the project activity and the benchmark analysis method. PP has identified post tax equity IRR as the most suitable financial indicator. The project cannot apply simple cost analysis since the project brings revenue from the sale of electricity; also investment comparison analysis cannot be applied as the alternative to the

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project activity is the electricity generated by new and existing grid connected power plants. Therefore, referring paragraph 19 of the investment analysis guideline/28/ "if the alternative to the project activity is the supply of electricity from grid this is not to be considered an investment and a benchmark approach is considered appropriate"; the project developer has chosen to apply the benchmark analysis method. Since the project proponent is demonstrating the financial unattractiveness of the project and the project cost involves both equity and debt, equity IRR is considered appropriate indicator and accepted by the validation team.

Benchmark selection:

As per paragraph 12 of the Guidelines on investment analysis, required/expected returns on equity are appropriate benchmarks for an equity IRR.

Following is stated in para 15 of Guidelines on the Assessment of Investment Analysis, version 05/28/,

'If the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by: (a) selecting the values provided in Appendix A; or by (b) calculating the cost of equity using best financial practices, based on data sources which can be clearly validated by the DOE, while properly justifying all underlying factors. The values in the table in Appendix A may also be used, as a simple default option, if a company internal benchmark is used.'

In line with above, required/expected return on equity is an appropriate benchmark for equity IRR. Accordingly, project participant considered default values for the expected return on equity of 11.75% as given in para 1 and para 6 of Appendix A of Guidelines on the Assessment of Investment Analysis, version 05 /28/, which is expressed in real terms. The equity IRR calculated is nominal equity IRR as escalation is considered in O&M cost. Accordingly PP converted the default benchmark which is in real terms into nominal terms by using the following equation

$$\text{Nominal Benchmark} = (1 + \text{Benchmark real}) * (1 + \text{Inflation rate}) - 1$$

The validation team referred the book 'Corporate Finance, Theory and Practice (2nd Edition, 2009) by Aswath Damodaran/49/. 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. Hence the validation team considers the above equation as appropriate for converting real benchmark into nominal benchmark. Nominal Benchmark estimated = $(1 + 11.75\%) * (1 + 5.90\%) - 1 = 18.34\%$

However PP has considered the benchmark of **17.65%** $(11.75\% + 5.90\%)$ /01/ on a conservative side. The validation team has checked the default value for the return on equity for the host country, i.e. India and found the value considered is consistent/28/. Further RINA has confirmed that the inflation rate considered for the project activity is in line with para 7 of the appendix to the guidelines on investment analysis. That is PP has considered the inflation rate obtained from the Reserve Bank of India (RBI) which is the Central Bank of host country (India) and it is India's monetary authority/50/51/. The RBI is supervisor of financial system, issuer of currency and manages foreign exchange reserves of the country. Thus the inflation forecast by RBI can be considered as reliable and authentic. RBI gives only two types of inflation forecast namely Wholesale Price Index (WPI) inflation forecast and Consumer Price Index-Industrial workers (CPI-IW) inflation forecast. Consumer Price Index for Industrial Workers (CPI-IW) measures change over time in prices of a fixed basket of goods and services consumed by Industrial Workers and it is an important indicator of the retail price situation in the country. The CPI-IW is mainly used for the determination of dearness allowance being paid to Central/State Government employees as also to the workers in the industrial sectors besides fixation and revision of minimum wages in scheduled employments. As CPI-IW is an indicator of retail prices of goods and services consumed by households, it is not relevant to the project activity. WPI inflation forecast is Wholesale Price Index inflation forecast. The Indian government has taken WPI as an indicator of the rate of inflation in the economy. Presently price levels for 435 commodities are being tracked through Wholesale Price Index in India. The commodities are grouped under Primary Articles; Fuel and Power and Manufactured Products. WPI inflation rate is the economic inflation rate for the

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whole country and there are no sector specific inflation forecast given by RBI in India. Since WPI inflation considers the wholesale price for power which would include power generated from all sources, this inflation forecast rate is most appropriate for the project activity. Thus the validation team considers that WPI inflation forecast as appropriate for the project activity. The value of inflation used is 5.90% is the 10 years forecasted inflation rate from RBI; which covers the first crediting period of the project activity. The date of publication of the of the WPI inflation forecast was on 23/01/2012, which is available at the time of decision making that is on 23/03/2012/**18/**.

The validation team also confirms that the value considered is consistent. RINA hereby confirms that the benchmark considered for project activity is an appropriate benchmark for Return on Equity and was available at the time of decision making/**18/28/50/**, which is in line with para 123 (b) of VVS version 02/**06/**.

Input parameters:

The validation team of RINA validated the input values and assumptions in the investment analysis by checking the original and other supportive documents as detailed below. It is noted that the values of the input values stated in the PDD are consistent with that of the financial calculation sheet **/03/**. The lifetime of the WTGs are confirmed to be 20 years as per the technology supplier/**40/** and the investment analysis is done for the period of 20 years and hence is justified as per the guidelines on assessment of investment analysis **/28/**.

RINA has validated the input parameters used in the investment analysis and the following steps have been followed to assess the investment analysis.

- Assessment of the sources used for input parameters. All input parameters used in the financial analysis are taken from term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited (technology supplier) **/16/17/** and third-party state electricity regulatory commission tariff order/**22/** available at the time of decision making etc. as described in the following table, and can thus considered information provided by independent source.
- Confirmation of the values in the PDD and investment analysis is fully consistent with the values provided in term sheet signed between the PP and M/s Gamesa Wind Turbines Private Limited (technology supplier) **/16/17/** and third-party state electricity regulatory commission tariff order/**22/**. RINA compared the input parameters for the financial analysis included in the latest PDD/**01/** and in the investment analysis spreadsheet/**03/** with the parameters stated in the documents used and was able to confirm that the values applied are consistent with the values stated in the offer letter mentioned in the following paragraphs.
- Assessment of the period between the time of the offer from technology supplier and the investment decision. The investment decision to proceed with the project activity was taken on 23/03/2012/**18/** which was within 17 days from the date of offer letter received from the technology supplier, dated 06/03/2012/**25/26/**. The cost mentioned in the proposal is higher than that of the terms sheet signed between the PP and the technology supplier. Hence the costs considered in the financial model are sourced from term sheet as signed between the PP and the technology supplier, being conservative in comparison to the offer.

Cross-check of the input parameters used in the financial analysis. The input parameters used in the financial analysis were cross-checked and all data sources used to cross-check were checked during the validation process. The following is carried out:

Parameter	Unit	Value	Validation Assessment and cross checking
Capacity of each WTG of Model G58	kW	850	Verified against terms sheet signed between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for

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			supply of 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 17/ . The same has been observed during the site visit.
Capacity of each WTG of Model G97	kW	2000	Verified against terms sheet signed between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 16/ . The same has been observed during the site visit.
No. of WTGs of Model G58	Nos.	29	Verified against terms sheet signed between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 17/ . The same has been observed during the site visit.
No. of WTGs of Model G97	Nos.	25	Verified against terms sheet signed between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 16/ . The same has been observed during the site visit.
Total capacity	MW	74.65	Verified against terms sheet signed between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private Limited for supply of 29 numbers of G58/ 0.85 MW WTGs and 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/ 16/17/ . The validation team has crosscheck the same with infrastructure clearance issued by MEDA for the project activity/ 34/ .
Plant Load Factor	%	23	Verified against the Tariff order (Case No 39 of 2011) for renewable energy by MERC dated 29/04/2011/ 22/ . As per the tariff order the Jath site of Gamesa is having average wind density less than 200 W/m ² , which belong to PLF range 20%, which is wind zone -1 as evident from MERC tariff order. But for conservative estimation PP has consider wind zone-2 PLF (which belong to PLF range 23%). Further the validation team has cross-check the value with the third party PLF study carried out by Garrad Hassan India Private Limited/ 24/ for the project activity. The estimated PLF as per Garrad Hassan India Private Limited (the third party) study at P-90 level shows that the project is estimated to have a PLF of 22.43%, which is less compared to the value derived as per tariff order. Hence RINA confirms that the PLF considered for the project activity is conservative and hence acceptable.
Life time of the	Years	20	The validation team has confirmed the life time of the WTGs from General Characteristics Manual:



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project activity			Characteristics general operation for Gamesa G% X -850 kW 50Hz-60Hz wind turbine dated 01/08/2011 and Det Norske Veritas certified technical specification for the project G-97-2 MW WTG issued on 30/12/2011/ 40 / and found appropriate.
Project Cost	INR million	4,883.00	<p>The project cost used for the investment analysis has been sourced from the terms sheet signed between ReNew Wind Power Private Limited (PP) and Gamesa Wind Turbines Private Limited (technology supplier) for supply of 29 numbers of G58/ 0.85 MW WTGs and 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/16/17/. The validation team has verified the same and the value found consistent.</p> <p>Further the validation team has checked the offer letter (proposal) from Gamesa Wind Turbines Private Limited (technology supplier) dated 06/03/2012/25/26/ was available at the time of investment decision on 23/03/2012/18/. The project cost as per the offer letter is INR 4931.14 million. The project cost considered for the demonstration of additionality using investment analysis is found to be conservative. Hence accepted.</p>
O & M cost	INR Million	57.33	<p>As per tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/22/ O & M cost is 0.768 million INR per MW accounting to total 57.33 million INR with 5.72% annual escalation/22/. Whereas, as per the term sheet signed with the technology supplier Gamesa Wind Turbines Private Limited dated 03/05/2012 the O & M cost is 0.8 million INR per WTG of G58/850kW model (i.e. 0.8*29 WTGs) and 2.25 million INR per WTG of G97/2000kW model (i.e. 2.25*25 WTGs), for both type of WTG's an annual escalation of 5 % starting from 4th year till 5th year of operation & from 6th year onwards to up to 10th year O & M price escalation will be at rate of 7% per year, from 10th year to 20 year escalation would be fixed at 7% per annum . These accounts total O & M cost for project to be 79.45 million per annum, In terms of per MW cost its accounts to be 1.0643 million INR per MW /25/. However for the IRR calculations PP has considered the value 57.33 million INR based on MERC order. Considering this O & M cost of tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/22/ IRR tends to be conservative. Hence the value is acceptable. Since, with 100% variation in O & M cost in the sensitivity analysis the IRR is below the benchmark, therefore, the O & M cost as per MERC tariff order is acceptable by the validation team.</p>
Tariff (fixed for 20 years)	Rs./k Wh	5.49	Tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/ 22 / is a publicly available document and available at the time of investment decision / 17 /. The

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			<p>tariff order determines the tariff based on wind zones. Wind zone is specified based on wind power density (WPD) at 50 meter hub height. As per the tariff order, wind zone-I falls where the WPD is 200-250 Watt/m². The project activity is located in Jath site of Sangli district. Further, the supply agreement also refers to wind zone-1 of Maharashtra/16/. Therefore, PP has considered tariff as per wind zone-1 of the state. It is to be noted that the tariff rate of wind zone-1 is the highest tariff rate compared to other wind zones in the state. Although, the tariff rate is fixed for 13 years as per the MERC tariff order/22/, it is also evident from the tariff order (page number 58) that the levelized tariff is determined for 25 years. Further, the cost of generation goes down with time as all variable cost has been settled which is evident from the tariff order. Hence, it is considered conservative to apply the same tariff after 13 years until the end of the technical life (20 years). Hence, the tariff rate as per MERC tariff order /22/ is considered appropriate for the investment decision.</p>
Debt	% of project cost	70	<p>The debt equity ratio (70:30) considered by PP at the time of investment decision is in line with the tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/22/. Since at the time of investment decision on 23/03/2012/18/ (the date of board resolution for the project activity), PP did not apply for loan and hence the debt equity ratio suggested by MERC was considered. Further the PP has subjected the debt equity ratio to sensitivity analysis.</p>
Equity	% of project cost	30	
Interest Rate	%	12.56	<p>Verified against the tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/22/. As per MERC tariff order interest rate shall be considered as average of State Bank Advance Rate (SBAR) prevalent during the previous year plus 150 basis points /20/. The interest rate in line with the tariff order works out to be 12.56%. and the value is found consistent. The validation team has cross check the value with CERC tariff order date 09/11/2010/57/. As per the CERC tariff order, the computations of interest on loan is based on the average of SBI prime lending rate for the financial year plus 150 basis points. Hence the interest rate used is accepted.</p>
On Plant and machinery	%	5.28	<p>The rate of depreciation 5.28% on plant and machinery is as per Companies Act 1956 /59/ available at the time of investment decision.</p>
Corporate tax rate	%	33.22	<p>The tax rate is cross checked and found to be correct which was applicable at the time of investment decision /58/.</p>
MAT	%	19.93 %	<p>The tax rate is cross checked and found to be correct which was applicable at the time of investment decision /58/.</p>

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Salvage value	%	10	As per (Case No 39 of 2011) of MERC tariff order, depreciation is allowed up to a maximum of 90% of the capital cost of the assets/22/. And hence, salvage value considered (10%) at the time of investment decision is appropriate.
Working Capital			
Receivables	No . of days	60	Receivables equivalent to 2 months of energy changes for sale of electricity as per (Case No 39 of 2011) of MERC tariff order /22/.
O & M expenses	No . of days	30	Operation and Maintenance expenses for one month as per (Case No 39 of 2011) of MERC tariff order /22/.
Maintenance spare of operation and maintenance expenses	% of O & M expenses	15	As per (Case No 39 of 2011) of MERC tariff order /22/.

RINA confirms that the input values used in the financial analysis are reasonable and adequately represent the economic situation of the project activity at the time of the investment decision.

Calculation and conclusion:

The validation team further assessed the correctness of computations and documentation carried out by the project participants. The assessment involves checking the data input taken from term sheet signed between the PP and the technology supplier/16/17/, offer letter (proposal) from Gamesa Wind Turbines Private Limited (technology supplier) dated 06/03/2012/25/26/ and Tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory Commission (MERC) dated 29/04/2011/22/ available at the time of decision making and other third party sources i.e. PLF assessment report /24/ adoption of correct accounting principle and arithmetical accuracy. The validation team checked offer letter issued by technology provider/27/ and third-party state electricity regulatory commission tariff order/22/ available at the time of decision making and other third party sources i.e. PLF assessment report /24/; and found that the value used for the investment analysis is conservative as it has been sourced from term sheet signed with the technology supplier/16/17/ and ensured that right input has been taken in the project cost and projections. The accounting principles adopted with respect to computation of depreciation and tax computation are found to be in order. The arithmetical accuracy is also found to be correct. The equity IRR calculations were provided in a spread sheet /03/.

The calculation were verified in detail and found to be correct by RINA as well as the assumptions used in the calculation were deemed to be correct. The Equity IRR for the project activity without CDM revenues is 12.48%, which confirms that the proposed project activity in absence of CDM benefits and compared to the benchmark IRR of 17.65% is not economically and financially attractive.

Sensitivity analysis

A sensitivity analysis has been carried out for parameters contributing more than 20% to either the total project costs or the total project revenue in order to demonstrate the robustness of the financial analysis. The parameters for which sensitivity analysis done are annual power generation (PLF), change in tariff, project costs, share of debt, operational and maintenance cost. Sensitivity analysis was conducted for $\pm 10\%$ variation. Reasonable variations for these parameters were

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checked by calculating the variation necessary to reach the benchmark and then discussing the likelihood for that to happen.

Parameter	Equity IRR		
Variation in %	-10%	Base Case	+10%
Tariff	9.42%	12.48%	15.52%
PLF	9.42%	12.48%	15.52%
Project cost	15.49%	12.48%	10.05%
O & M cost	12.82%	12.48%	12.13%
Sharing of debt	12.29%	12.48%	12.68%

Based on the sensitivity analysis the equity IRR does not cross the benchmark under any circumstances. Further review of the sensitivity analysis reveals that for the benchmark to be crossed, one of the following must happen.

Parameter	Percentage variation required to reach the bench mark
Tariff	+16.82%
PLF	+16.82%
Project cost	-15.88%
O & M cost	-155.15%
Sharing of debt	Even with 100% share of debt, equity IRR will not cross benchmark.

Parameter	Probability of the situation
Change in Plant Load Factor	As per the tariff order the Jath site of Gamesa is having average wind density less than 200 W/m ² , which belong to PLF range 20%, which is wind zone -1 as evident from MERC tariff order. But for conservative estimation PP has consider wind zone-2 PLF (which belong to PLF range 23%). Further the validation team has cross-check the value with the third party PLF study carried out by Garrad Hassan India Private Limited/24/ for the project activity. The estimated PLF at P-90 level is t shows that the project is estimated to have and generation of 147.6, which is less compared to the value derived as per tariff order. Hence a positive variation of 16.82% is not practical feasible and reasonable scenario.
Project cost	<p>The project cost used for the investment analysis has been sourced from the terms sheet signed between ReNew Wind Power Private Limited (PP) and Gamesa Wind Turbines Private Limited (technology supplier) for supply of 29 numbers of G58/ 0.85 MW WTGs and 25 numbers of G97/ 2 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012/16/17/. The validation team has verified the same and the value found consistent.</p> <p>Further the validation team has checked the offer letter (proposal) from Gamesa Wind Turbines Private Limited (technology supplier) dated 06/03/2012/25/26/ was available at the time of investment decision on 23/03/2012/18/. The project cost as per the offer letter is INR 4931.14 million. The project cost considered for the demonstration of additionality using investment analysis is found to be conservative. As the PP has signed the term sheet with the technology supplier the price agreed is firm and negative variation of the same to the tune of 15.88% is not a realistic scenario.</p>
O & M cost	155.15% reduction in O & M cost is not a practical scenario.
Tariff rate	Tariff order (Case No 39 of 2011) of Maharashtra Electricity Regulatory

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	Commission (MERC) dated 29/04/2011/ 22/ is a publicly available document and available at the time of investment decision /17/ . The tariff order determines the tariff based on wind zones. Wind zone is specified based on wind power density (WPD) at 50 meter hub height. As per the tariff order, wind zone-I falls where the WPD is 200-250 Watt/m ² . The project activity is located in Jath site of Sangli district. Further, the supply agreement also refers to wind zone-1 of Maharashtra/ 16/ . Therefore, PP has considered tariff as per wind zone-1 of the state. It is to be noted that the tariff rate of wind zone-1 is the highest tariff rate compared to other wind zones in the state. Although, the tariff rate is fixed for 13 years as per the MERC tariff order/ 22/ , it is also evident from the tariff order (page number 58) that the levelled tariff is determined for 25 years. Further, the cost of generation goes down with time as all variable cost has been settled which is evident from the tariff order. Hence, it is considered conservative to apply the same tariff after 13 years until the end of the technical life (20 years). Hence, the tariff rate as per MERC tariff order /22/ is considered appropriate for the investment decision. The MERC tariff order is estimated on 14 years levelled tariff, and a positive variation to the tune of 16.82% is not reasonable for the project.
Sharing of debt	The project activity will not cross the benchmark, even if the project activity is implemented with 100% debt.

The result of IRR and sensitivity analysis shows that without the income from CERs sale, the proposed project activity is unlikely to be financially attractive.

3.12 Barrier analysis

The additionality of the project has been demonstrated by applying the investment analysis, thus no barrier analysis is carried out.

3.13 Common practice analysis

The PP has conducted the common practice analysis as per the requirements of "Tool for the demonstration and assessment of additionality Version 06.1.0 **/09/**. In line with the guidance given in this tool, the PP has selected the India (host country) as the default applicable geographical area for the assessment of common practice. Further, the PP has selected the step-wise approach given in Para 47 of the tool to carry out the common practice analysis.

As per the Step 1 of Para 47, the applicable output range as $\pm 50\%$ of the design output range (74.65 MW) is 37.325 MW to 111.975 MW.

In the step 2, PP has identified the plants that deliver the output in the range of 37.325 MW to 111.975 MW in the host country India. While identifying these projects, the plants that were considered are based on the technologies such as thermal, hydro, nuclear, biomass, wind, solar, tidal and geothermal and have started their commercial operation before the start date of the project activity and which have not applied or registered under CDM. The plants that are based on the thermal, hydro and nuclear technologies have been sourced from the CEA database Version 7.0/**15/** which contains comprehensive list of the projects/power plants across India that are supplying electricity to the national grid of India. This was the latest database available at the start date of the project activity and has been published by the Central Electricity Authority of India who is the sole authority to publish such databases. Hence, the information given in this database has been considered as authentic and reliable. The validation team checked this database and found that the total number of thermal, hydro, biomass and nuclear power plants that fall in the applicable output range and commissioned before the start date of the project activity are 15, 42, 1 and 0 respectively. It was noted by the validation team that these projects are non-CDM projects and hence have been considered further for the analysis. The wind power plants in the applicable output range in India have been selected by PP based on the Directory Indian Wind Power 2011 which was published in September 2011 and available to the PP at

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the start date of project. This directory is widely accepted and used in the wind energy sector. Thus, the team considers this as the credible and reliable source of data which has been used by PP for the analysis.

Excluding projects considered under CDM, the total number of projects within the applicable range came to 58 which is noted as N_{all} .

In the step 3, PP has identified technologies which are different than the wind power technology based on the parameter energy sources as per the guidance given in the Para 9 of Annex 20 of EB 69. This parameter of energy source/fuel to define the technologies different than that applied in the project activity is found to be acceptable in view of the guidance given in the Para 9 of Annex 20 of EB 69. Thus, the projects identified in the step which are using technologies other than wind have been identified as N_{diff} and their count is 58.

While performing the step 4, PP has been able to demonstrate the factor F is 0 which is less than 0.2 and $N_{all} - N_{diff}$ is less than 3. Thus, in view of the guidance given in the Annex 21 of EB 65, the validation team confirms that the analysis has been performed as per the sub-step 4 a and 4 of the "Tool for the demonstration and assessment of additionality" Version 06.1.0/09/. The team based on the assessment has been able to confirm that the project activity can be regarded as not a common practice in the host country India.

3.14 Conclusion

RINA can confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable. By assessing the evidences presented and cross-checking the information contained in. RINA considers the reasoning's for the proposed project additionality demonstration is credible and reasonable i.e. the proposed project has the ability to reduce anthropogenic emissions of greenhouse gases by sources below those that would have occurred in the absence of the registered CDM project activity. Thus RINA confirms that the above discussion and analysis establishes that the project activity is financially not viable without the benefits from CDM.

3.15 Monitoring Plan

The approved baseline and monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13 of 11/05/2012/07/ has been applied.

The monitoring plan is in accordance with the monitoring methodology. The monitoring plan will give opportunity for real measurement of achieved emission reductions. RINA has checked all the parameters presented in the monitoring plan against the requirements of the methodology and no deviations relevant to the project activity have been found in the monitoring plan.

RINA 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.

3.15.1 Parameters determined ex-ante

Baseline emission factor for NEWNE regional grid is established ex-ante based on the approved methodology ACM0002, version 13/07/, and tools to calculate emission factor for an electricity system, ver 2.2.1/10/.

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	Data/parameter	Unit	Value applied	Assessment
1	Weightage of build margin emissions factor	%	0.25	Default values used as per the "Tool to calculate the emission factor for an electricity system" Version 02.2.1/ 10/ . Hence, accepted by the validation team.
2	Weightage of operating margin emissions factor	%	0.75	Default values used as per the "Tool to calculate the emission factor for an electricity system" Version 02.2.1/ 10/ . Hence, accepted by the validation team.
3	EF _y (Combined Margin of the NEWNE Grid)	tCO ₂ /MWh	0.9529	<p>Project participant has used the official published data on operating and build margin emission factors. The version of the data used is as it is the latest version available on 14/07/2012 the date of webhosting of the PDD for global stakeholder comments (viz start of validation). This data is published by Central Electricity Authority, CEA (version 7/15/ who is the sole authority for the publication of such data in India. CEA has published a database of carbon dioxide emission factors for the power sector in India based on detailed authenticated information obtained from CEA on all operating power stations in the country. Project participant has applied weightage factors for the OM and BM [75% & 25% respectively] as specified in the tool to arrive at the emission factor for the combined margin/02/.</p> <p>Validation team has checked the emission factor calculations from CEA database version 7/15/ and the value of EF_y, is found to be correct. The validation team agrees to this emission factor since it is based on the official background data published by CEA.</p> <p>RINA confirms that the database is an official publication of Ministry of Power, Government of India. The calculation and assumptions were verified by the validation team and found to be correct and appropriate.</p>
4	EF _{BM} (Build Margin of the NEWNE Grid)	tCO ₂ /MWh	0.8588	Project participant has used the official published data on operating and build margin emission factors. The version of the data used is as it is the latest version available on 14/07/2012 the

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				<p>date of webhosting of the PDD for global stakeholder comments (viz start of validation). This data is published by Central Electricity Authority, CEA (version 7) /15/ who is the sole authority for the publication of such data in India. CEA has published a database of carbon dioxide emission factors for the power sector in India based on detailed authenticated information obtained from CEA on all operating power stations in the country.</p> <p>Validation team has checked the emission factor calculations from CEA database version 7/15/ and the values of EF_{BM} is found to be correct. The validation team agrees to this emission factor since it is based on the official background data published by CEA.</p> <p>RINA confirms that the database is an official publication of Ministry of Power, Government of India. The calculation and assumptions were verified by the validation team and found to be correct and appropriate.</p>
5	EF _{OM} (Generation Weighted Operational Margin of the NEWNE Grid)	tCO ₂ /MWh	0.9842	<p>Project participant has used the official published data on operating and build margin emission factors. The version of the data used is as it is the latest version available on 14/07/2012 the date of webhosting of the PDD for global stakeholder comments (viz start of validation). This data is published by Central Electricity Authority, CEA (version 7) /15/ who is the sole authority for the publication of such data in India. CEA has published a database of carbon dioxide emission factors for the power sector in India based on detailed authenticated information obtained from CEA on all operating power stations in the country.</p> <p>Validation team has checked the emission factor calculations from CEA database version 7/15/ and the value of EF_{OM} is found to be correct. The validation team agrees to this emission factor since it is based on the official background data published by CEA.</p> <p>RINA confirms that the database is an official publication of Ministry of Power, Government of India. The calculation</p>

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				and assumptions were verified by the validation team and found to be correct and appropriate.
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3.15.2 Parameters monitored ex-post:

The ex-post parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology, and they will be monitored during the crediting period:

	Parameter	Description/Assessment
1	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y $EG_{\text{facility},y}$ (MWh/year)	The project WTGs along with other WTGs of the wind farm is connected to a main and check meter at the substation where continuous monitoring of total power import and export from all WTGs takes place. Main and check meter remains under the custody of state utility. Daily energy reading (export and import electricity) shall be provided to state utility for the purpose of apportioning. State utility will take the joint meter reading (Gross export and import) on monthly basis in presence of representative of project participant from the main energy meter installed at the substation. Based on the daily generation details available with state utility apportioning is done by state utility and monthly generation report will be issued to project participant by state utility. The generation report provides the gross import ($EG_{\text{import},y}$) and gross export ($EG_{\text{export},y}$) from the project activity. It is to be noted that apportioning is done entirely by state utility and PP has no role in apportioning. The generation report issued by state utility will give the net quantity of electricity export to grid ($EG_{\text{facility},y}$) from the project activity. This value shall be directly used to calculate the emission reduction achieved from the project activity. The same can be cross checked from the invoice copy raised by PP to state utility. In case of failure of the main meter, the check meter would be used. The monitoring frequency is continuous and readings are recorded on monthly basis, as required by the methodology /05/
2	The quantity of electricity delivered to the project plant/unit from the grid $EG_{\text{import},y}$ (MWh/year)	The project WTGs along with other WTGs of the wind farm is connected to a main and check meter at the substation where continuous monitoring of total power import and export from all WTGs takes place. Main and check meter remains under the custody of state utility. Daily energy reading (export and import electricity) shall be provided to state utility for the purpose of apportioning. State utility will take the joint meter reading (Gross export and import) on monthly basis in presence of representative of project participant from the main energy meter installed at the substation. Based on the daily generation details available with state utility apportioning is done by state utility and monthly generation report will be issued to project participant by state utility. The generation report provides the gross import ($EG_{\text{import},y}$) from the project activity.
3	The quantity of electricity supplied by the project	The project WTGs along with other WTGs of the wind farm is connected to a main and check meter at the substation where continuous monitoring of total power import and export from

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	plant/unit to the grid EG_{export,y} (MWh/year)	all WTGs takes place. Main and check meter remains under the custody of state utility. Daily energy reading (export and import electricity) shall be provided to state utility for the purpose of apportioning. State utility will take the joint meter reading (Gross export and import) on monthly basis in presence of representative of project participant from the main energy meter installed at the substation. Based on the daily generation details available with state utility apportioning is done by state utility and monthly generation report will be issued to project participant by state utility. The generation report provides the gross export (EG _{export,y}) from the project activity
4	Daily electricity generation at individual WTG controller (MWh/day)	Each WTG is equipped with inbuilt control panel which records electricity import and export data on continuous basis. The data will be recorded daily in Power Generation Reports by the O&M Contractors. This data will be used only for determination of apportioning ratio, and will be applied only in cases where the monitoring period does not coincide with the initial/final meter reading dates in the Credit Notes.

Management system and quality assurance

Electricity meter of 0.2S class accuracy shall be used. Main electricity meters at Sub-station will be calibrated as per provisions of PPA. The accuracy class of the energy meter is as per the CEA notification/33/ and hence complies with the International Standards. Calibration records shall be maintained by state utility. The O & M of the project activity will be done by the technology supplier who has dedicated trained personnel to carry out the day to day operation and maintenance of the project activity so as to monitor the quantity of electricity supplied to the grid. In addition,

The operational and management structure implemented together by PP and the technology supplier is summarized below:

- The O & M team under the shift in-charge monitors continuous electricity generation from individual WTGs and compile so as to calculate the monthly electricity generation.
- The project manager maintains the data records received from shift in-charge and forward to the head of the PP.
- Final data management and invoicing against net electricity generation will be done by ReNew Wind Energy (Jath) Private Limited.
- The data will be archived for 2 years after the end of the crediting period by the PP

RINA confirms that the monitoring plan mentioned in the PDD is in accordance with the requirements mentioned in the monitoring methodology and the local regulatory requirements of the state utility, as well the monitoring arrangements described in the monitoring plan are feasible within the project design. RINA is of the opinion that the monitoring plan will give opportunity for real measurement of achieved emissions reductions for 2 years after the crediting period.

3.16 Estimation of GHG emissions

The emission reduction ER_y by the proposed project activity during the crediting period is the difference between baseline emissions (BE_y), project emission (PE_y) and emissions due to leakage (L_y) as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Baseline emissions:

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As per ACM0002 Version 13.0.0, equation 6, baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity and are calculated as follows:

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

Where:

- BE_y = Baseline emissions in year y (tCO₂)
- EG_{PJ,y} = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)
- EF_{grid,CM,y} = Combined margin 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" (tCO₂/MWh)

The values applied for Baseline Emission Calculation is as follows:

$$EG_{PJ,y} = 150,405 \text{ MWh}$$

$$EF_{grid,CM,y} = 0.9529 \text{ tCO}_2/\text{MWh} \text{ and therefore } BE_y = 143,315 \text{ tCO}_2\text{e}$$

Calculation of EG_{PJ,y}

The project activity being the Greenfield plant, the calculation of EG_{PJ,y} is carried out using the approach (a) as mentioned in ACM0002 Version 13.0.0, equation 7 as below:

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

Where:

- EG_{PJ,y} = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)
- EG_{facility,y} = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh)

Determination of EG_{facility,y} : For ex-ante estimation, the amount of electricity delivered to grid is taken from the Distribution Licensee report on energy delivered to grid. For ex-post, the value shall be monitored in calibrated energy meter and as recorded in monthly generation report issued by state utility. The same can be cross checked from the invoice copy raised.

Determination of EF_{grid,CM,y}: CM (combined margin) emission factor for NEWNE grid of India has been calculated on the basis of sum of 75% of OM (operating margin) and 25% of BM (build margin).

$$EF_{grid,CM,y} = 0.75 * EF_{grid,OM,y} + 0.25 * EF_{grid,BM,y}$$

The CM emission factor is calculated as 0.9529 tCO₂e/MWh as per the "Tool to calculate the emission factor for an electricity system" (Version 02.2.1, EB 63 Annex 19)/10/ and has been sourced from the Central Electricity Authority (CEA) CO₂ Baseline database /15/.

Consideration about EF_{OM}: The simple OM emission factor have been calculated using the Simple OM method as the low-cost/must run resources constitute less than 50% (for year 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11) /15/. The ex-ante vintage data has been used for the OM calculation of the project. The PDD version 01/01/ was web-hosted for global stakeholder comments from 14/07/2012 to 12/08/2012 and the latest available data vintage is taken for the EF calculations. EF_{OM} for the most recent three years (2008-09, 2009-10 and 2010-11) and the weighted average is calculated to be 0.9842 tCO₂e/MWh/03/. The calculated EF_{OM} is fixed ex-ante and will not be reviewed in the crediting period of the project activity.

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Consideration about EF_{BM}: BM is calculated ex-ante based on the average emission intensity of 20% most recent capacity additions in the grid based on the net generation for the year 2010-2011. Consequently, the Build Margin emission factor is calculated to be 0.8588 tCO₂e/MWh. This is as per the "Tool to calculate the emission factor for an electricity system" (Version 02.2.1, EB 63 Annex 19)/10/.

CM (combined margin): The baseline emission factor (CM) is calculated as the average of the operating margin emission factor and the build margin emission factor where the weights W_{OM} and W_{BM}, by default, are 75% W_{OM} and 25% W_{BM}. The combined margin emission factor for NEWNE grid of India has been calculated to be 0.9529 tCO₂e/MWh, which is fixed ex-ante for the entire crediting period. PP has provided the baseline emission reduction sheet/02/ for the calculation of combined margin emission factor.

The validation team accepted the same as this follows the latest version of the database available to the project participant at the time of submission of PDD for validation. So, RINA is of the opinion that all the assumptions and data used by the PP discussed in the PDD are appropriate and conservative and same has been cross checked with the references and the sources provided by the PP in the PDD /01/.

Project emissions:

As per ACM0002, for most renewable power generation project activities, PE_y = 0. However, some project activities may involve project emissions that can be significant. These emissions shall be accounted for, by using the following equation:

$$PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y}$$

Where,

PE _y	=	Project emissions in year y (tCO ₂ e)
PE _{FF,y}	=	Project emissions from fossil fuel consumption in year y (tCO ₂)
PE _{GP,y}	=	Project emissions from the operation of geothermal power plants due to the release of non-condensable gases in year y (tCO ₂ e)
PE _{HP,y}	=	Project emissions from reservoirs of hydro power plants in year y (tCO ₂ e)

As the project activity is a wind energy based power generation, the project emissions are not applicable to the project activity. Hence, PE_y = 0

Leakage:

As per ACM0002, no leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport). These emissions sources are neglected. Since the proposed project activity is a wind mill, there is no transfer of equipment the leakage (LE_y) is considered as zero.

Emission Reductions:

As per equation 11 of ACM0002 Version 13.0.0/07/, the emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y$$

PP has calculated the emission reductions using the above equation and is estimated to be 143,315 tCO₂e per annum. The calculation of the emission reductions has been ensured by the validation team based on the latest CER calculation sheet/02/.

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The emission reductions estimation can be replicated using the data and parameter values provided in the PDD and supporting file submitted for registration. The data sources mentioned have been verified by RINA. RINA confirms that the estimates provided in the latest PDD/01/ are reasonable and the project participant has correctly applied the methodology; the calculations are complete and transparent and the data accuracy has been verified.

3.17 Environmental Impacts

No significant adverse environmental impact is expected due to project activity, since the project is a renewable energy (wind energy) project with no project emissions. Furthermore, there is no mandatory legal requirement for carrying out EIA for wind energy projects in India, which was verified by the EIA notification of MoEF, dated 01/12/2009/31/.

RINA has verified all the statutory clearances from MEDA/34/35/. The validation team concludes that all the clearances obtained are in accordance with the procedures required by the host party and no significant environmental impacts are expected from the project activity.

3.18 Local stakeholders consultation

Prior to the publication of the PDD version 01/01/ on the UNFCCC website from 14/07/2012 to 12/08/2012, the project proponent invited local stakeholders through personnel invitation letters and organized the local stakeholder consultation process on 26/06/2012 for the project activity. Gram Panchayat Members, local villagers, employees of the technology supplier were present at the meeting. RINA cross checked the attendance list of stakeholders'/36/37/ and also interviewed some of the local stakeholders during site visit to confirm the consistency of the information provided in the PDD.

A summary of comments has been provided by PP and it is found that no adverse comment was received for the project activity/36/. This has also been verified by RINA validation team during site visit by conducting a random stakeholder's meeting at the WTGs site/38/. Further, the interviewees confirmed that there was no adverse comment about the project and this project will lead to employment generation and better environmental conditions. RINA considers the local stakeholder consultation carried out adequately and can confirm that the process is credible.

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4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PDD version 01 of 10/07/2012 /01/ was made publicly available on the CDM UNFCCC website and Parties, stakeholders and NGOs through the CDM website (<http://cdm.unfccc.int/Projects/Validation/DB/58F59ZMZ72YL85XOVXTP2KL4UQVO4C/view.html>) invited to provide comments during a 30 days period from 17/05/2012 to 15/06/2012.

Below comments as presented in **Table A**, were received during this period.

TABLE A			
Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
lasith, lasith@yahoo.com	<p>1. Purpose of the project and how the proposed project activity reduces greenhouse gas emissions are not briefed in the PDD. Refer section A.2.</p> <p>2. How environmentally safe and sound technology is used for the project and details of technology transfer is not demonstrated adequately. Refer A.4.2</p> <p>3. Non- debundling nature of the project activity is not adequately justified as per EB54 Annex 13 (Debundling tool). Refer A.4.5.</p> <p>4. Please check the project boundary of the project activity is not based on the guidance of the applicable project category.</p> <p>5. Why has option A (Combined margin) been chosen for calculating emission factor is not justified. Refer B.6</p> <p>6. The justification of choosing IRR as financial indicator is not adequately justified. Whether it is equity or project IRR, pre-tax or post tax is not mentioned in the PDD.</p> <p>7. The emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can</p>	<p>1. Please refer to the revised PDD in the applicable sections.</p> <p>2. The project does not create any technology transfer.</p> <p>3. The project is large scale CDM project and so this is not the requirement.</p> <p>4. The Project boundary is as per the applicable methodology only.</p> <p>5. The same has been adequately described in the Section B.6 of PDD.</p> <p>6. The same has been adequately described in the Section B.5 of PDD.</p> <p>7. Please refer to the Section B.6 of the PDD.</p> <p>8. PLR has not been chosen as benchmark.</p> <p>9. The same has been discussed adequately in the Section B.5 of the PDD.</p> <p>10. All the parameters including the referred one has been suitable justified in the Section B.5 of the PDD.</p> <p>11. The debt-equity ratio as considered during investment analysis has</p>	<p>1. The purpose of the project activity is mentioned in the latest PDD.</p> <p>2. The validation team confirms that there is not technology transfer involved in the project activity and the PDD clearly mentions the same.</p> <p>3. The project activity is the installation of 74.65 MW wind power project, which falls under the large scale CDM project category.</p> <p>4. PP has demonstrated the project boundary as per the methodology ACM0002, version 13.</p> <p>5. PP has calculated the combined margin for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system".</p> <p>6. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity.</p> <p>7. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the</p>

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TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>include off-grid power plants.</p> <p>8. Basis of choosing PLR as benchmark is not adequately demonstrated in the PDD</p> <p>9. All the issues of investment analysis guidelines are not discussed in the PDD. Refer B.5.</p> <p>10. Justification of parameters including O&M, insurance, loan, derating, escalation, and tariff are not demonstrated with justification. Refer B.5.</p> <p>11. Please provide a proof for proposed debt to equity taken at the investment decision. Refer B.5</p> <p>12. Proof for PLF is not justified.</p> <p>13. Date of offer is not provided</p> <p>14. Project cost is not as per state norms. Refer B.5.</p> <p>15. O&M charges and its escalation is not as per norms</p> <p>16. IT rate assumed is not as per standard practice.</p> <p>17. The application of MAT which is based on tax holiday while calculating WACC is not appropriate.</p> <p>18. The PP has not explained and justified the key assumptions and rationale.</p> <p>19. The PP and consultant has not illustrate in a transparent manner all data used to determine the baseline emissions.</p> <p>20. Not demonstrated that the proposed project activity is</p>	<p>been justified in the PDD and in the Financial Model.</p> <p>12. The same has justified in the PDD and also in response to CAR 4.2</p> <p>13. The copy of the Offer and date has been provided to the DoE for validation.</p> <p>14. The project cost is in line with state norms and offer as obtained from the technology supplier. The same can be further substantiated from the agreement with technology supplier, which has been provided to the validator.</p> <p>15. The O&M Charges and escalation is as per MERC tariff order only.</p> <p>16. IT rate assumed is not as per any standard but as per Income Tax Rule, Government of India.</p> <p>17. The project has not calculated benchmark through WACC route.</p> <p>18. All the key assumption and rationale has been adequately described in the PDD, Financial Model and Validation replies.</p> <p>19. The baseline scenario has been determined with data and information as published by CEA, Government of India.</p> <p>20. The same has been adequately</p>	<p>emission factor for an electricity system”.</p> <p>8. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity; and PP is not using PLR as the benchmark for the project activity.</p> <p>9. Section B.5 of the latest PDD transparently demonstrates investment analysis.</p> <p>10. Section B.5 of the latest PDD transparently demonstrates investment analysis and the PP have included the input parameters in the same.</p> <p>11. The PDD justifies the debt-equity ratio.</p> <p>12. The PDD is in line with Guidelines for completing the project design document form, version 01.0. Further validation team confirms that PP has transparently justifies the PLF value.</p> <p>13. PP has submitted the offer letter from the technology provider. The date of offer is mentioned in the same.</p> <p>14. PP has demonstrated investment analysis which is in line with regulatory requirements. Further PP has submitted the offer letter as well as the term sheet signed with the technology provider to the validation team.</p> <p>15. The validation team confirm that all data, rationales, assumptions,</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>additional as per options provided under attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities.</p> <p>21. National policies and circumstances relevant to the baseline of the proposed project activity are not being summarized clarify.</p> <p>22. Explain and justify all relevant methodological choices for the proposed project activity</p> <p>23. Data that is calculated with equations provided in the approved category or default values specified in the category should not be included in the compilation.</p> <p>24. CER revenue assumed is not consistently applied</p> <p>25. Project cost is not as per norms, DOE has to check and clarify.</p> <p>26. The project cost of the project should be based on offer and not on purchase order or tariff order.</p> <p>27. O&M charges considered are on higher side. Pls. clarify.</p> <p>28. Benchmark calculation is not as per WACC tool (EB53 Annex 8)</p> <p>29. Whether pre-tax or post tax IRR is selected is not demonstrated in the PDD.</p> <p>30. The basis of calculation of benchmark is not documented in the section B.5. PLR is not acceptable benchmark for the project. WACC based on</p>	<p>demonstrated in the section B.5 of the PDD.</p> <p>21. Please refer to our replies of the point 19.</p> <p>22. The same has been adequately justified in the relevant sections of the PDD.</p> <p>23. Data required calculating baseline emission and emission reduction are complied in section B.4 and B.6.3 of the revised PDD.</p> <p>24. CER revenue is consistently applied both in PDD and IRR sheet.</p> <p>25. The project cost has been considered from the Term Sheet as executed between PP and the technology supplier. The Term Sheet copy as a documentary evidence of actual project cost is submitted to DOE.</p> <p>26. The project cost has been considered from the Term Sheet as executed between PP and the technology supplier. The Term Sheet copy as a documentary evidence of actual project cost is submitted to DOE.</p> <p>27. O&M charges are based on MERC Tariff Order and it is not in higher side as compared to other projects in the region.</p> <p>28. ROE (Benchmark) has been calculated as per</p>	<p>justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable. By assessing the evidences presented and cross-checking the information contained in.</p> <p>16. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable. By assessing the evidences presented and cross-checking the information contained in.</p> <p>17. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity and in line with the Guidelines on the assessment of investment analysis.</p> <p>18. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable. By assessing the evidences presented and cross-checking the information contained in.</p> <p>19. The latest PDD demonstrates baseline scenario and mentions all data and information used.</p> <p>20. The project activity is the</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>Government bonds, risk premiums should be taken.</p> <p>31. Prior consideration of CDM which is important for the determination of additionality is not documented in the section B.5 of the PDD.</p> <p>32. Date of PPA is not mentioned in the prior consideration of CDM</p> <p>33. The selection of simple OM based on low cost/must run resources is not adequately justified. Refer B.6.1</p> <p>34. PP has not provided for each parameter the chosen value or, where relevant, the qualitative information.</p> <p>35. Please Provide the actual value applied. Where time series of data is used, where several measurements are undertaken or where surveys have been conducted, provide detailed information.</p> <p>36. Explain and justify the choice for the source of data.</p> <p>37. Ex-ante option of calculating OM is not adequately demonstrated. Step 3 of Refer B.6.1</p> <p>38. Power plants registered as CDM project activities should be included in the sample group that is used to calculate the operating margin if the criteria for including the power source in the sample group apply. This argument is not demonstrated. B.6.1</p> <p>39. The selection of option (out of two) for calculating OM is not adequately documented with justification. CEA calculation is</p>	<p>EB62, Annex 5.</p> <p>29. The same has been demonstrated in the PDD.</p> <p>30. Since Equity IRR is selected as financial indicator, ROE has been considered as benchmark and ROE has been calculated as per EB62, Annex 5. WACC and PLR are not considered as benchmark.</p> <p>31. Prior consideration of CDM has been demonstrated in section B.5 of the PDD.</p> <p>32. Date of PPA is not required to mention in the prior CDM consideration as per "Guidelines on the Demonstration and Assessment of prior consideration of the CDM", Version 04, Annex 13, EB 62.</p> <p>33. The selection of simple OM based on low cost/must run resources is not required to justify in section B.6.1 as per PDD filling guideline. The same has been justified in section B.4 of the PDD as per PDD filling guideline.</p> <p>34. The parameter, values and sources are detailed in section B.4 and B.5 of the revised PDD.</p> <p>35. Values applied for ER calculation and IRR</p>	<p>installation of 74.65 MW wind power project, which falls under the large scale CDM project category. The PP has demonstrated additionality as per the "Tool for the demonstration and assessment of additionality" Version 06.1.0</p> <p>21. The PDD is in line with Guidelines for completing the project design document form, version 01.0. The latest PDD demonstrates baseline scenario and mentions all data and information used.</p> <p>22. The PDD is in line with Guidelines for completing the project design document form, version 01.0.</p> <p>23. The emission reductions estimation can be replicated using the data and parameter values provided in the PDD and supporting file submitted for registration.</p> <p>24. The financial spreadsheet contains CER revenue.</p> <p>25. PP has demonstrated investment analysis which is in line with regulatory requirements. Further PP has submitted the offer letter as well as the term sheet signed with the technology provider to the validation team.</p> <p>26. The PDD transparently demonstrated investment analysis and in-line with the Guidelines on the</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>based on net electricity generation, the average efficiency of each power unit and the fuel types used in each power unit. Step 4 of B.6.1</p> <p>40. The argument that CEA data for build margin is calculated as per Emission factor tool is not documented. B.6.1</p> <p>41. Spread sheet is not provided. The data should be presented in a manner that enables reproducing of the calculation of OM, BM, and CM.</p> <p>42. The justification of negligible project emissions for wind project is not as per AMS. I. D ver 16.0 EB 54).</p> <p>43. The emission factor value (Southern grid) for calculating baseline emission is wrong. Refer B.6.3</p> <p>44. Net electricity should be continuously monitored, hourly measured and at least monthly recorded. Refer B.7.1</p> <p>45. Metering regulations as per CEA norms is not adequately followed in monitoring plan. Refer B.7.2.</p> <p>46. Where the values have been measured, include a description of the measurement methods and procedures that comply with the guidance provided under general guidance.</p> <p>47. Provide a detailed description of the monitoring plan, including an identification of the data to be monitored and the procedures that will be applied during monitoring.</p>	<p>calculation are detailed in section B.4 of B.5 of the revised PDD.</p> <p>36. Explanation of data source and choice of data has been provided in section B.5 of the PDD.</p> <p>37. As per "Tool to calculate emission factor for an electricity system", version 02.2.1 /EB – 63, Annex 19, the simple OM can be calculated using either Ex-ante or Ex-post option. Following EB63, Annex 19, the ex-ante option is applied to calculate OM.</p> <p>38. All power plants except low cost/must run plants are considered in the sample group for OM calculation. This is as per EB63, Annex 19. This has been explained in section B.4 of the PDD.</p> <p>39. Option adopted for OM calculation is clearly demonstrated in the revised PDD.</p> <p>40. The argument is provided in section B.4 of the revised PDD.</p> <p>41. ER and EF calculation spreadsheet is provided to DOE.</p> <p>42. The project activity applies methodology ACM 0002, version 13.0.0 and as per applied version of the methodology, the project emission is zero</p>	<p>assessment of investment analysis.</p> <p>27. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable. By assessing the evidences presented and cross-checking the information contained in.</p> <p>28. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity and in line with the Guidelines on the assessment of investment analysis.</p> <p>29. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity; and in line with the Guidelines on the assessment of investment analysis.</p> <p>30. Section B.5 of the latest PDD explains the justification of the Choice of Financial Indicator for the project activity; and PP is not using PLR as the benchmark for the project activity</p> <p>31. Validation team confirms that prior CDM consideration is transparently demonstrated in the section B.5 of the PDD.</p> <p>32. Prior CDM consideration is transparently</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>48. The PP should include sources of data that will be actually used for the proposed project activity (e.g. which exact national statistics, actual measurement etc.).</p> <p>49. Where the parameters are to be measured in accordance with the guidance of the approved project category or the general guidance to the indicative methodologies, specify the measurement methods and procedures including accepted industry standards or national or international standards which will be applied, which measurement equipment is used, how the measurement is undertaken.</p> <p>50. Which calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person / entity that should undertake the measurements and what is the measurement interval?</p> <p>51. Please provide a detailed description of the monitoring plan. Describe the operational and management structure that the project operator will implement in order to monitor emission reductions.</p> <p>52. Clearly indicate the responsibilities for and institutional arrangements for data collection and archiving.</p> <p>53. The monitoring plan should reflect good monitoring practice appropriate to the type of project activity. Provide any relevant further background information.</p> <p>54. Please describe the</p>	<p>for wind power project.</p> <p>43. The project activity would supply power to NEWNE grid not southern grid. The emission factor for southern grid is not calculated in the PDD.</p> <p>44. There would be continuous measurement and monthly recording. PDD has been revised accordingly.</p> <p>45. Metering regulations as per CEA norms and CDM norms are being followed.</p> <p>46. Measurement method and procedures are provided in the revised PDD for all parameters.</p> <p>47. The same has been provided in section B.7.1 & B.7.2 of the revised PDD.</p> <p>48. PP has included the data source and justification for all parameters used for ER and IRR calculation in the revised PDD. The appropriateness of the data can be checked by data available in public domain and data published by Govt. authorities.</p> <p>49. The details asked in the query are provided in section B.7.1 and B.7.2 of the revised PDD.</p> <p>50. The necessary details are provided in section B.7.1 and B.7.2 of the revised PDD.</p>	<p>demonstrated in the section B.5 of the PDD.</p> <p>33. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system"; and the PDD is in line with Guidelines for completing the project design document form, version 01.0.</p> <p>34. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality, demonstration of baseline scenario and estimation of emission reduction are credible and reliable. By assessing the evidences presented and cross-checking the information contained in.</p> <p>35. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable. By assessing the evidences presented and cross-checking the information contained in. The validation team also confirms that the PDD is in line with Guidelines for</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted.</p> <p>55. Project participants shall describe a project activity in a manner which allows the local stakeholders to understand the project activity.</p>	<p>51. The necessary details are provided in section B.7.1 and B.7.2 of the revised PDD.</p> <p>52. The necessary details are provided in section B.7.1 and B.7.2 of the revised PDD.</p> <p>53. The monitoring plan is designed as per applied methodology. All requisite information on the monitoring plan are provided in section B.7.1 and B.7.2 of the revised PDD.</p> <p>54. The details are provided in section E.1 of the revised PDD.</p> <p>55. The local stakeholder meeting was held to make the local community aware of the project activity. The stakeholder meeting was attended by local villagers, representatives from Project Proponent as well as representatives from the technology supplier, The stakeholders were presented, in vernacular language, with an overview of the project activity as well as the technological, economic, environmental and social issues associated with it. The meeting discussed about the project, impact on the local community and the</p>	<p>completing the project design document form, version 01.0</p> <p>36. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable. By assessing the evidences presented and cross-checking the information contained in. The validation team also confirms that the PDD is in line with Guidelines for completing the project design document form, version 01.0</p> <p>37. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system"; and the PDD is in line with Guidelines for completing the project design document form, version 01.0.</p> <p>38. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system"; and the PDD is in line with Guidelines for completing the project design document form, version 01.0.</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
		environment. The stakeholder minutes of meeting is provided to DOE.	<p>39. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system"; and the PDD is in line with Guidelines for completing the project design document form, version 01.0.</p> <p>40. PDD is in line with Guidelines for completing the project design document form, version 01.0.</p> <p>41. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system".</p> <p>42. The project activity uses the methodology ACM0002, version 13; and the project emission is justified as per the methodology.</p> <p>43. PP has estimated the emission factor for the grid in accordance with the procedure provided in the "Tool to calculate the emission factor for an electricity system". The emission reduction estimation is found appropriate.</p> <p>44. The monitoring frequency has been revised in the PDD and there is a provision of continuous measurement and monthly recording.</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			<p>45. Validation team during the site visit confirms that the Metering process will be as per the national regulations.</p> <p>46. The monitoring procedure is in line with the applied methodology and the PDD transparently mentions the same.</p> <p>47. The latest PDD contains the details monitoring plan which contains all the data/parameters to be monitored. The monitoring procedures are in line with the applied methodology.</p> <p>48. The validation team confirm that PDD contains source of all data, rationales, assumptions, justifications and documentation. These information/data are credible and reliable. This has been confirmed by assessing the evidences presented and cross-checking the information contained in. The validation team also confirms that the PDD is in line with Guidelines for completing the project design document form, version 01.0</p> <p>49. The latest PDD contains the details monitoring plan which contains all the data/parameters to be monitored. The monitoring procedures are in line with the applied methodology.</p> <p>50. The validation team confirms that the details are mentioned in section</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			<p>B.7.1 and B.7.2 of the latest PDD.</p> <p>51. The validation team confirms that the details are mentioned in section B.7.1 and B.7.2 of the latest PDD.</p> <p>52. The validation team confirms that the details are mentioned in section B.7.1 and B.7.2 of the latest PDD.</p> <p>53. The validation team confirms that the details are mentioned in section B.7.1 and B.7.2 of the latest PDD.</p> <p>54. The section E.1 of the latest PDD transparently describes Local stakeholder consultation process. PP has also submitted the minutes of the local stakeholders meeting.</p> <p>55. The project proponent invited local stakeholders through personnel invitation letters and organized the local stakeholder consultation process on 26/06/2012 for the project activity. Gram Panchayat Members, local villagers, employees of the technology supplier were present at the meeting. The validation team cross checked the attendance list of stakeholders and also interviewed some of the local stakeholders during site visit to confirm the consistency of the information provided in the PDD. The validation</p>

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Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			team considers the local stakeholder consultation carried out adequately and can confirm that the process is credible.
lasith, llasith@yahoo.com	<p>1. DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project.</p> <p>2. DoE to check the Detailed Project Report and Feasibility Report which is submitted to the other agencies and Banks by Project owner and ensure that the values match with the DPR/FR submitted to DoE also.</p> <p>3. Careful study must be done so that the DPR/FR is not in different versions made and submitted with different purposes to different agencies, which is totally unacceptable, illegal and unethical.</p> <p>4. Project owner should show some undertaking letter from bank manager to DoE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DoE at face value, but must be checked independently. While collecting the DPR/FR from banks and other agencies, all DPR/FR pages should be counter signed by Banks and other agencies so that the real DPR/FR given to other parties by the PP/Consultant is same as the one submitted to DOE.</p> <p>5. DPR/FR values must be probed fully. DOE must take a written undertaking from the PP/Consultant about the list of parties to whom this DPR/FR is submitted and for what purposes. Then DOE should</p>	<p>1. The PDD values are consistence and justification of all input parameters has been provided to the DoE.</p> <p>2. This is not applicable for the project activity as no DPR & FR was prepared for the project activity. The project viability was assessed based on offer received from technology supplier and state electricity regulatory tariff order.</p> <p>3. DoE May like to check.</p> <p>4. Please refer to the response in point (2)</p> <p>5. Please refer to the response in point (2)</p> <p>6. Please refer to the response in point (2)</p> <p>7. Please refer to the response in point (2)</p> <p>8. The project is yet to apply for bank finance. When PP will be proceeding to avail bank finance the CDM will be highlighted as PP has taken conscious decision to go ahead with the project investment taken the project's applicability as CDM project.</p> <p>9. The project equipment is not second hand equipment and does</p>	<p>1. The validation team confirm that PDD contains source of all data, rationales, assumptions, justifications and documentation. These information/data are credible and reliable. This has been confirmed by assessing the evidences presented and cross-checking the information contained in.</p> <p>2. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. PP has submitted evidence for all the input parameters used for the investment analysis.</p> <p>3. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used</p>

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TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>cross check with all the parties and confirm that the same DPR/FR is submitted to all the parties correctly without any changes. DOE must not accept any reports and undertakings from PP/Consultant. DOE must make independent evaluation and use totally different parties without informing the PP or Consultant to cross check the facts.</p> <p>6. DOE to write to the party who prepared the DPR/FR which is submitted to the banks and other agencies and the same is verified against the one submitted to the DOE by PP/Consultant.</p> <p>7. DOE must not entertain this project any more if found the DPR/FR is tampered with at any point in time. PP can not give different DPR's and FR's. They must submit only the one given to Banks and other agencies while obtaining loans and decision making time.</p> <p>8. Has the PP considered the CDM revenues while envisaging the project? Without CDM the project was not viable, is it right? This project is having a debt component? Then how bankers or lenders gave the loan? Have the bankers or lenders considered the CDM revenues while agreeing to give loan to this projects? If not this project should be rejected right away by DOE by terminating the contract forthwith. If yes, where is the proof? What is the date of the evidence document from bank? Is this document printed now a days or earlier. DOE to independently check the same. If the document is available from Bank it must be checked from all angles so that</p>	<p>not procure from cheap foreign source. The project activity comprises of 29 WTGs of 0.85 MW each (G 58) and 25 WTGs of 2.00 MW each (G 97) of Gamesa Wind Turbines Private Limited. The technology used in the project activity has been procured from the host country. The Term Sheet placed to Gamesa has been submitted to DOE.</p> <p>10. No marketing and business development was done to take the project activity for validation from DOE side. PP approached different DOEs requesting offers for validation of the project activity. Based on the offers and expertise of the DOE in the similar project activity, PP finalised the proposal of "RINA" for the validation of the project activity.</p> <p>11. This is not applicable as the project activity is a large scale CDM project.</p> <p>12. This is not applicable for the project activity as the equipments procured for the project activity are new (as evident from PO).</p> <p>13. Input parameters were consistently provided in</p>	<p>for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable.</p> <p>4. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable.</p> <p>5. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the</p>

VALIDATION REPORT

TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>it is genuine and not forged and date changed by putting back dated. This is normally done, DOE to be aware of this please. Please check the communication the PP had during that time with banks, emails and postal receipts and the weights and dates mentioned on the receipts. Do not believe in courier bills and receipts since these can be cooked up easily. Insist on government owned postal service receipts only. If the project is fully equity project then on what basis the PP has invested full equity in to the project while considering the CDM revenue? DOE to check the same in detail and bring out the facts. Is there any past record of this PP to invest or not to invest at returns what he is talking about in this project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation.</p> <p>9. Is the project equipment purchased second hand equipment or sourced from cheap foreign sources? If yes, the issue must be probed by DOE since invoices will invariably be inflated and forged. Total project costs mentioned by PP will not be the same as originals. Hence no additionality. These facts must be probed in full by DOE by checking all documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst.</p> <p>10. From DOE side which</p>	<p>IRR, CER calculation and in the PDD. The assessment of appropriateness of the parameters considered in the financial analysis & CER estimation has been carried out as per guidance 6 of EB 62, annex 5. Based on the assessment it is confirmed that the values considered here are appropriate.</p>	<p>purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable.</p> <p>6. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration</p>

VALIDATION REPORT

TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>auditor has done marketing and business development for acquiring this business of validating this project? With whom he or she was co-ordinating at PP or CER buyer? The same person who has done the marketing and business development to acquire the business do validation or participate in any manner what so ever in the validation process? One cannot do like that. It is against the accreditation rules and norms followed since ages. DOE should send auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please.</p> <p>11. If applicable only: Is these machines, equipment was a part of any bundle of CDM activity envisaged and developed earlier. DOE to check the same through independent sources also. Once some bundles are non-additional and getting negative validation from a DOE, PP is rolling out the same project as an individual project which is not a CDM project at all. DOE to verify the same from independent sources and also take undertaking in the form of an affidavit from the PP's that any misrepresentation or false statement with respect this would attract strict legal action</p>		<p>of additionality in section B.5 are credible and reliable.</p> <p>7. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable.</p> <p>8. The validation team confirms that the project activity is planned as a CDM project. PP had duly sent a notification letter of prior CDM consideration to both the DNA of India and the UNFCCC secretariat of the commencement of the project activity and of their intention to seek CDM status, using the standardized form F-CDM-Prior Consideration. The notification is available at</p>

VALIDATION REPORT

TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>from UNFCCC and DOE. Furthermore the registered project must be de-registered in case of any future findings contradicting the submissions made by the project owner.</p> <p>12. DOE to be more careful so that this is a genuine CDM project. What is the exact project cost? The project cost is covering what? Each value considered must be validated with proof. The machinery is second hand purchased or fresh and new from an OEM? In either case DOE to check all the quotations, proposals, purchase orders, invoices, way bills, transport bills, proof of payments like bank statements. DOE to check with banks by way of written confirmation the amount transacted, to whom the money is paid, when the money is paid, is the party paid is the correct party as shown in the purchase orders. It may so happen that the values, party names, dates are fabricated and misrepresented in this project. DOE should terminate their contract for this project immediately. This is the only way out to protect the value of CDM process. If the PP is purchasing second hand or second quality equipment and inflating the purchase order values and invoices, this must be probed thoroughly and real values to taken for additionality calculation. Then I'm sure the additionality is not there at all in such a situation.</p> <p>13. How is the base line defined in this project? Is Base line hypothetically defined with no proper evidences and proper justification? In such case, DOE cannot take the base line as suggested by the PDD. Please</p>		<p>UNFCCC website indicating receiving date of prior CDM consideration notification as 16/06/2012.</p> <p>9. The PP has submitted the term sheet signed between M/s ReNew Wind Power Private Limited (PP) and M/s Gamesa Wind Turbines Private Limited (technology supplier) for supply of 25 numbers of G97/ 2 MW WTGs and 29 numbers of G58/ 0.85 MW WTGs to wind farm at Jath, Maharashtra dated 03/05/2012. The same has been verified with Chartered Accountant's certificate on the payments made to M/s Gamesa Wind Turbine Private Limited by M/s Renew Wind Energy (Jath) Private Limited dated 03/10/2012.</p> <p>10. The validation team is not involved in the marketing and business development to take the project activity. The same can be verified from the form titled - 'Request for Validation /Verification /Assessment of Greenhouse Gases project/programme of activity proposed to RINA'.</p> <p>11. Not applicable. The project activity is the installation of 74.65 MW wind power project, which falls under the large scale CDM project category.</p> <p>12. The PP has assessed the viability of the project based on the offer</p>

VALIDATION REPORT

TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
	<p>check that there are real emission reductions beyond the real and factual base line. It may so happen that this project qualifies for no CER's. DOE cannot assume values and things as giving by this PP. Whatever values are considered throughout the project in all documents including the real DPR (not the one prepared for CDM, the one given to the banks and others), they must be validated, verified and double checked. Do not ask PP for DPR. Ask the parties who have been given DPR by the PP. Get directly from the bank and others by each page of the DPR and Feasibility report signed. Such document can be considered as a real DPR or FR. UNFCCC CDM process cannot be degraded by fabricating and misinterpreting the project base line and additionality.</p>		<p>received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable.</p> <p>13. The PP has assessed the viability of the project based on the offer received from the technology supplier and state electricity regulatory tariff order. Further for the purpose of demonstrated additionality PP has conducted the investment analysis based on the cost mentioned in the term sheet signed with the technology supplier on a conservative note. PP has submitted evidence for all the input parameters used for the investment analysis. The validation team confirm that all data, rationales, assumptions,</p>

VALIDATION REPORT

TABLE A

Details of the commenter	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			<p>justifications and documentation provided by the project participants to support demonstration of additionality in section B.5 are credible and reliable. The PDD transparently demonstrated investment analysis and in-line with the Guidelines on the assessment of investment analysis.</p>

VALIDATION REPORT

5 VALIDATION OPINION

RINA Services S.p.A (RINA) has performed validation of the project activity “ Wind Power Project at Jath, Maharashtra” In India with regard to the relevant requirements for CDM activities.

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

The host Party is India. Host part fulfills the participation criteria and has approved the project and authorized the project participant ‘ReNew Wind Energy (Jath) Private Limited’. The DNA from India confirmed that the project assists in achieving sustainable development.

The project correctly applies the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13 of 11/05/2012.

By generating renewable energy from wind energy resources, the project results in reduction of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the “ Wind Power Project at Jath, Maharashtra” are estimated to be on an average 143,315 tCO_{2e} per year over the selected 7 years of renewable crediting period. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

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

In conclusion, it is RINA’s opinion that the project activity “ Wind Power Project at Jath, Maharashtra” in India, as described in the PDD, version 03 of 18/10/2012, meets all relevant UNFCCC requirements for the CDM and all relevant host party criteria and correctly applies the baseline and monitoring methodology “ ACM0002”, “ Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13 of 11/05/2012.

RINA provides the validation opinion that the coverage for all the project components or issues are deemed being validated through the validation process.

RINA thus requests registration of the project as a CDM project activity.

APPENDIX A

VALIDATION PROTOCOL

TABLE 1 MANDATORY REQUIREMENTS

Requirement	Reference	Conclusion
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reductions commitment under Art. 3.	Kyoto Protocol Art.12.2	OK
2. The project shall assist non Annex I Parties contributing to the ultimate objective of the UNFCCC.	Kyoto Protocol Art.12.2	CAR 1 OK
3. The project shall have the written approval of voluntary participation from the designated national authority of each Party involved	Kyoto Protocol Art.12.5a CDM Modalities and Procedures §40a	CAR 1 OK
4. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof.	Kyoto Protocol Art.12.2 CDM Modalities and Procedure §40	CAR 1 OK
5. In case public funding from Parties included in Annex I is used for the project activity, these Parties shall provide an affirmation that such funding does not result in a diversion of official development assistance (ODA) and is separate from and is not counted towards the financial obligations of these Parties.	Decision 17/CP.7 CDM Modalities and Procedures Appendix B §2	CL 3 OK
6. Parties participating in the CDM shall designate a national authority for the CDM	CDM Modalities and Procedures §29	OK
7. The host Party and the participating Annex I Party shall be a Party to the Kyoto Protocol.	CDM Modalities and Procedures §30/31a	OK. There is no Annex I party involved in this project activity.
8. The participating Annex I Party's assigned amount shall have been calculated and recorded.	CDM Modalities and Procedure §31b	Not Applicable
9. The participating Annex I Party shall have in place a national system for estimating GHG emissions and a national registry in accordance with Kyoto Protocol Article 5 and 7.	CDM Modalities and Procedure §31b	Not Applicable
10. Reduction in GHG emissions shall be additional to any that would occur in the absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity.	CDM Modalities and Procedure §43	CAR 11, CAR 12, CAR 13, CAR 14, CAR 15, CAR 16, CL 4, CL 5 OK
11. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change.	Kyoto Protocol Art.12.5b	CAR 18, CL 06 OK
12. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received.	CDM Modalities and Procedures §37b	CL 7 OK

Requirement	Reference	Conclusion
13. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30/45 days, and the project design document and comments have been made publicly available.	CDM Modalities and Procedures §40	Table A
14. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel.	CDM Modalities and Procedures §37e	OK
15. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	CDM Modalities and Procedures §47	CL-1 OK
16. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords, and relevant decisions of the COP/MOP.	CDM Modalities and Procedures §37f	CAR-18 OK

TABLE 2 REQUIREMENTS CHECKLIST

Checklist Question		Reference	MoV ¹	Comments	Conclusion
A Description of Project Activity					
A.1 Title of the project activity					
A.1.1.	Does the used project title clearly enable the reader to identify the unique CDM activity? Is there an indication of a revision number and the date of the revision.	/01/	DR	Yes; as per the webhosted PDD, the title of the project activity in the PDD is "Wind Power Project at Jath, Maharashtra" version 1.0, dated 10/07/2012. However, the PP is requested to submit the Letter of Approval from host country DNA.	CAR-4 OK
A.1.2	Does the project comply with the applicable requirements for completing the PDDs (latest version available)?	/01/ /08/	DR/ CC	The PDD is not transparent on the following as per the latest "Guidelines for completing the project design document form", version 01.0, Annex 8 of EB 66 dated 02/03/2012. 1. The section A.2.4 of the PDD is not in line with the guidelines for completing the PDD. The description exceeds one page. 2. As per guidelines load factor is to be mentioned in section A.3 3. The average life time and efficiency of the equipments is not mentioned in the section A.3 4. Data used for baseline are not mentioned in section B4 5. Comments made by stakeholders and identification of stakeholders who made comments are not included in section E.2 of the PDD.	CAR-2 OK
A.1.3	Does the PDD comply with the template available (latest version)?	/01/ /14/	DR/ CC	The PDD complies the "Project Design Document Form for CDM Project Activities (F-CDM-PDD)" version 04.1, dated 11/04/2012. This was the latest available template at the time of starting the validation.	OK
A.2 Description of the proposed project activity					

¹ MoV: DR document review, I interview, CC cross checking

Checklist Question	Reference	MoV ¹	Comments	Conclusion
<p>A.2.1 Does the PDD contain an accurate description of the project activity and provide the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation? How was the design of the project assessed?</p>	<p>/01/ /16/ /17/ /25/ /26/</p>	<p>DR/ I/ CC</p>	<p>As per the PDD, the purpose of the project activity is to generate electricity from Wind Energy and supply the same to NEWNE grid of India. The project involves 29 WTGs each of 0.85 MW and 25 WTGs of 50 MW capacity totaling 74.65 MW at Jath Mandal of Sangli district in Maharashtra state of India. The proposed project capacity is confirmed from the term sheet copy signed between the project proponent and the WTG supplier (Gamesa Wind Turbines Private Limited) for supplying 29 WTGs each of G58/0.85 MW and 25 WTGs of G97/50 MW and from interview with technology supplier at the WTG installation site. During the site visit the validation team found that all 54 WTGs are yet to be installed and commissioned. This confirmed that the project activity is a green field project. However, PP is requested to submit the following documents:</p> <ol style="list-style-type: none"> 1. Approval from state nodal agency for setting up the wind power project. 2. Land approval/lease agreement executed for the project location 3. Power Purchase Agreement executed for the project activity. 4. Commissioning certificates of WTGs as and when commissioned. 5. Copy of Final Agreement with Gamesa Wind Turbines Private Limited. 6. Copy of Purchase Order Placed. 	<p>CL-1 OK</p>
<p>A.2.2 Does the project activity involve alteration of existing installations? If yes, have the differences between pre-project and post-project activity been clearly described in the PDD?</p>	<p>/01/ /16/ /17/</p>	<p>DR/ CC</p>	<p>The project activity is a Greenfield project. During the site visit, it was noted by the validation team that out of 54 WTGs 52 WTGs are yet to be installed; and all the WTGs are yet to be commissioned. In addition, the term sheet copy signed between the project proponent and the WTG supplier (Gamesa Wind Turbines Private Limited) for supplying 29 WTGs each of G58/0.85 MW and 25 WTGs of G97/50 MW make confirms that the project activity is a new project activity.</p>	<p>OK</p>
<p>A.2.3 Is all information provided consistent and in</p>	<p>/01/</p>	<p>DR/</p>	<p>The information regarding the actual implementation status</p>	<p>CAR-3</p>

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	compliance with the actual situation or planning?	/25/ /26/	CC	or planning of the project activity is not provided in the PDD transparently. Also the existing scenario prior to the project activity is not transparent in the PDD. Further the project activity is the installation of 29 WTGs each of 0.85 MW and 25 WTGs of 2 MW capacity totaling 74.65 MW; however proposal from GAMESA is for 25 nos of 2 MW (50 MW) and 58 nos of 0.85 MW (49.3 MW) totaling 99.3 MW.	OK
A.3 Project participantsds					
A.3.1	Have the Parties and project participants participating in the project been listed in tabular form in Section A.3 and are they consistent with the information detailed in Annex 1 of the PDD?	/01/	DR/ CC	As per the table provided in section A.4 of the PDD, the host party involved is India and the project participant is M/s ReNew Wind Energy (Jath) Private Limited. The project participant name in section A.4 of the PDD is consistent with the information provided in Appendix-1 of the PDD.	OK
A.3.2	Do all participating Parties fulfil the participation requirements as follows: (a) Party has ratified the Kyoto Protocol (b) Party has a Designated National Authority (c) The assigned amount has been determined	/01/ /12/ /13/	D R / C C	Since it is a unilateral project, the only party involved is India. India ratified the Kyoto Protocol on 26/08/2002 and is allowed to participate. India has a Designated National Authority (DNA) called National Clean Development Mechanism Authority (NCDMA) under Ministry of Environment and Forest, Govt. of India. There is no assigned amount determined for India.	OK
A.3.3	Have the letters of approval have been issued?	/01/	D R	The letter of approval from host country DNA is not yet available. The PP is requested to provide the same.	CAR-4 OK
A.3.4	Do the letters of approval meet the following requirements? (a) LoA(s) is/are issued by the DNA (b) LoA confirms that the Party has ratified the Kyoto Protocol; (c) LoA confirms that participation is voluntary (d) The LoA confirms that the project contributes to the sustainable development of the Host Country? (e) The LoA is valid for the proposed project	/01/	D R	Please refer to section A.3.3 of this protocol.	CAR-4 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	activity under validation (f) The LoA was received directly by the DNA or by the PP				
A.3.5	Indicate the means of validation employed to assess the authenticity	/01/	D R	The letter of approval from host country DNA is not yet available. The PP is requested to provide the same.	CAR-4 OK
A.3.6	Have all private/public project participants been authorized by a Party to the Kyoto Protocol?	/01/	D R	Please refer to section A.3.3 of this protocol.	CAR-4 OK
A.3.7	Are the entities included in the PDD those authorized as PPs?	/01/	D R	The letter of approval from host country DNA is not yet available. The PP is requested to provide the same.	CAR-4 OK
A.3.8	Do the PP(s) listed in the PDD have a contract with RINA for the project validation?	/01/	D R	As per the PDD, the PP is M/s ReNew Wind Energy (Jath) Private Limited; whereas the validation agreement is executed by M/s ReNew Wind Power Private Limited. Further, all agreements (WTG procurement, erection & commissioning etc.) related to project activity were executed by M/s ReNew Wind Power Private Limited. Hence, PP is requested to clarify with documentary evidence the relation between M/s ReNew Wind Power Private Limited and M/s ReNew Wind Energy (Jath) Private Limited. Further it is noted that all the orders like Purchase orders etc are not issued by the PP. PP is requested to explain the same.	CL-2 OK
A.4 Modalities of communication					
A.4.1	Does the MoC statement comply with the latest version of the Form F-CDM-MOC available?	/27/	D R	PP is requested to submit the latest version of the Modalities of Communication statement (F-CDM-MOC) and documentary evidence to check the authenticity of the signing authority.	CAR-4 OK
A.4.2	Does the MoC statement is correctly completed including Annex 1?	/27/	D R	Please refer to section A.4.1 above.	CAR-4 OK
A.4.3	Does the MoC statement identify all PPs and focal points?	/27/	D R	Please refer to section A.4.1 above.	CAR-4 OK
A.4.4	How the personal identities, the specimen signatures and the employment status is cross-checked?	/27/	D R	Please refer to section A.4.1 above.	CAR-4 OK
A.4.5	Is the official who submitted the MoC statement and the official who signed the written confirmation duly authorized to do so on behalf of	/27/	D R	Please refer to section A.4.1 above.	CAR-4 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
the respective PPs?					
A.5 Technical description of the project					
A.5.1	Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude of the site indicated (decimal points)?	/01/	D R	<p>The project location is clearly described in the PDD and is also in line with the location described in the agreement copy signed between the project proponent and the WTG supplier (ReGen Powertech Private Limited). During the site visit the location of the installed WTGs are found to be correct as described in the PDD. The validation team have confirm the locations by means of GPS.</p> <p>PP has presented WTG wise longitude and latitude in the PDD under section A.2.4. However, It was noticed that the coordinates has been provided in the decimal system. PP is requested also to present the coordinates (latitude and longitude) in degree, minutes and seconds form.</p>	CAR-5 OK
A.5.2	Is the category(ies) of the project activity correctly identified?	/01/	D R	Yes; the projects falls under Sectoral Scope: 1 (Energy industries (renewable / non renewable sources) and correctly applies the methodology ACM0002 version 13.0.0	OK
A.5.3	Does the project design engineering reflect current good practices? Would the technology result in a significantly better performance than any commonly used technologies in the host Country? Is any transfer of technology from any Annex I Party involved?	/01/ /16/ /17/	D R / C C	<p>The project involves electricity generation from Wind Energy. There is no GHG emissions associated with electricity generation from wind energy and therefore the project technology is a clean form of technology.</p> <p>WTGs included in the project activity are of Gamesa G-58 (0.85 MW) and G-97 (2 MW) make. The same is found consistent during the site visit by the validation team. The technical specifications presented in the PDD are found to be in line with the copy of term sheet between the project proponent and the WTG supplier (Gamesa Wind Turbines Private Limited).</p> <p>There is no technology transfer from Annex I party in the project activity since the technology provider M/s Gamesa Wind Turbines Private Limited is based in the host country. The copy of terms sheet between M/s ReNew Wind Power Private Limited and M/s Gamesa Wind Turbines Private</p>	CAR-6 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				Limited for supply of 25 numbers of G97/2 MW WTGs and 29 numbers G58/0.85 MW to wind farm at Jath has been verified in this regard. Further, wind energy technology is a clean form of energy and significantly better technology than commonly used technology for electricity generation.	
				However the technical specification mentioned in PDD for G97 is not consistent with that of the reference provided.	
A.5.4	What is the expected operational lifetime of the project activity? Is it reasonable?	/01/	D R / C C	The expected operation lifetime is not mentioned in the section A.3. and PP is requested to make it transparent and provide evidence for the same.	CAR-7 CAR-2 OK
A.6 Public funding					
A.6.1	Does the information on public funding provided conform to the actual situation or planning as presented by the PPs?	/01/	D R	As per the project PDD, the project activity does not involve any public funding. However, PP is requested to provide documentary evidence for the source of funding of the proposed project activity.	CL-3 OK
A.6.2	If public funding from Parties included in Annex I is used for the project activity, have these Parties provided an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties?	/01/	D R	Please refer to section A.6.1 above.	CL-3 OK
B. Baseline and monitoring methodology					
B.1 Methodology applied					
B.1.1	Does the project activity apply an approved methodology and the correct version thereof?	/01/ /07/	DR	Yes; the project activity correctly applies the approved methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of EB 67 dated 11/05/2012.	OK
B.1.2	Is there any specific guidance, including the methodological tools provided by EB and has these guidance been applied?	/01/ /07/ /09/ /10/	DR	Yes; the following tools and guidelines are correctly applied in the project activity as referred by the methodology: - Tool for the demonstration and assessment of additionality, version 06.0.0, EB 65	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion						
				<ul style="list-style-type: none">- Tool to calculate the emission factor for an electricity system, version 02.2.1, EB 63- Guidelines on the assessment of investment analysis. Version 05, annex 5, EB 62 dated 15/07/2011							
B.1.3	How was it validated that the project activity complies with the applicability criteria?	/01/ /07/	D R	<table><tr><th>Applicability criteria</th><th>Project activity</th><th>Criteria is met?</th></tr><tr><td>This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).</td><td>The project activity involves grid connected renewable (wind energy) power plant where no renewable power plant was in operation prior to the implementation of the project activity.</td><td>Yes; from the term sheet signed between the project proponent and the WTG supplier it is evident that the project activity is a wind power based project. Further, it was seen during the site visit that none of the WTGs are installed at site. Hence, the project activity is</td></tr></table>	Applicability criteria	Project activity	Criteria is met?	This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	The project activity involves grid connected renewable (wind energy) power plant where no renewable power plant was in operation prior to the implementation of the project activity.	Yes; from the term sheet signed between the project proponent and the WTG supplier it is evident that the project activity is a wind power based project. Further, it was seen during the site visit that none of the WTGs are installed at site. Hence, the project activity is	CAR-8 OK
Applicability criteria	Project activity	Criteria is met?									
This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	The project activity involves grid connected renewable (wind energy) power plant where no renewable power plant was in operation prior to the implementation of the project activity.	Yes; from the term sheet signed between the project proponent and the WTG supplier it is evident that the project activity is a wind power based project. Further, it was seen during the site visit that none of the WTGs are installed at site. Hence, the project activity is									

Checklist Question	Reference	MoV ¹	Comments			Conclusion
					a green field project activity.	
			The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit	The project activity is a 74.65 MW wind power project consisting of 29 WTGs each of 0.85 MW capacity and 25 WTGs each of 2 MW capacity.	Yes; from the term sheet signed between the project proponent and the WTG supplier it is evident that the project activity is a wind power project.	
			In the case of capacity additions, retrofits or replacements (except for capacity addition projects for which the electricity generation of the existing power plant(s) or unit(s) is not affected: the existing plant started commercial operation prior to the start of a minimum historical	The project activity is a green field project activity and not a capacity addition project.	Not applicable to the project activity.	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity addition or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;	
			<p>In case of hydro power plants, At least one of the following conditions must apply:</p> <ul style="list-style-type: none"> • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or • The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the 	<p>The project activity is a wind power project and not a hydro power project.</p> <p>Not applicable to the project activity.</p>

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m after the implementation of the project activity; or</p> <ul style="list-style-type: none"> The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m². 	
			<p>In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m² all the following conditions must apply:</p> <ul style="list-style-type: none"> The power density calculated for the entire project activity using 	<p>The project activity is a wind power project and not a hydro power project.</p> <p>Not applicable to the project activity. However, PP does not describe the applicability conditions transparently in</p>

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>equation 5 is greater than 4 W/m²;</p> <ul style="list-style-type: none"> Multiple reservoirs and hydro power plants located at the same river and where are designed together to function as an integrated project¹ that collectively constitute the generation capacity of the combined power plant; Water flow between multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; Total installed capacity of the power units, which 	<p>section B.2 of the PDD.</p>

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>are driven using water from the reservoirs with power density lower than 4 W/m², is lower than 15 MW;</p> <ul style="list-style-type: none"> Total installed capacity of the power units, which are driven using water from reservoirs with power density lower than 4 W/m², is less than 10% of the total installed capacity of the project activity from multiple reservoirs. 	
			<p>The methodology is not applicable to the following:</p> <ul style="list-style-type: none"> Project activities that involve switching from fossil fuels to 	<ul style="list-style-type: none"> The project activity is a new wind power project and does not involve switching from fossil <p>Not applicable to the project activity.</p>

Checklist Question	Reference	MoV ¹	Comments	Conclusion	
			<div><div>renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site;</div><div><ul style="list-style-type: none">• Biomass fired power plants;• A hydro power plant that results in the creation of a new single reservoir or in the increase in an existing single reservoir where the power density of the reservoir is less than 4 W/m2.</div></div>	<div><div>fuel to renewable energy.</div><div><ul style="list-style-type: none">• The project activity is a new wind power project and not a biomass fired power plant.• The project activity is a new wind power project and not a hydro power plant.</div></div>	
			<div><div>In the case of retrofits, replacements, or capacity additions, this methodology is</div><div>The project activity is a green field project and not a retrofit, replacement or</div></div>	<div><div>Not applicable to the project activity.</div></div>	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	capacity addition project.
			In addition, the applicability conditions included in the tools referred by the methodology shall apply.	<p>The project activity follows the following tools as referred by the methodology:</p> <ol style="list-style-type: none"> 1. Tool to calculate the emission factor for an electricity system (Version 02.2.1) 2. Tool for demonstration and assessment of additionalit <p>The PDD mentions the applicable tools in relevant section of the PDD. However, PP is requested to include the applicability conditions of the tools in the section B.2 of the PDD.</p>

Checklist Question		Reference	MoV ¹	Comments			Conclusion
					y (Version 06.0.0)		
B.1.4	Is the selected baseline one of the baseline(s) described in the methodology and this hence confirms the applicability of the methodology?	/01/ /07/	D R	Yes. The project proponent has chosen baseline scenario as per the approved baseline methodology ACM0002 version 13.0.0. The baseline is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “tool to calculate the emission factor for an electricity system”. However, PP is requested to Refer CL 1.			CL-1 OK
B.2 Project boundary							
B.2.1	Is the project boundary are clearly defined and in accordance with the applied methodology?	/01/ /07/	D R	As per the methodology, the project boundary includes “the the project power plants and all power plants connected physically to the electricity system that the CDM project power plant is connected to”. Accordingly, PP included the green house gases and sources in a tabular format and outlined the flow diagram of the project boundary. However, the metering point(s) of net quantity of electricity export to grid is not transparent in the project boundary and the description of project boundary is not mentioned in the PDD. The monitoring plan does not include the substation name in the PDD.			CAR-9 OK
B.2.2	What are the project's system boundaries (components and facilities used to mitigate GHGs)?	/01/ /07/	D R /I /C C	The system boundaries for the project activity are the 25 WTGs of 2 MW capacity each and 29 WTGs of 0.85 MW capacity each, the transmission lines and energy meters connected to WTGs for monitoring the quantity of electricity generation before exporting to grid. NEWNE regional grid has been considered for the purpose of baseline estimation. However, the exact metering point of net quantity of electricity export to grid is not transparent in the project boundary.			CAR-9 OK
B.2.3	Which sources are identified for the project? Does the identified project boundary cover all possible	/01/ /07/	D R	CO ₂ emission from the net electricity displaced in the NEWNE grid (baseline emissions) has been considered			OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	sources linked to the project activity?		/I / C C	and this reflects clearly in the project boundary. The project activity does not have any project or leakage emission. Moreover, the applied methodology ACM0002, version 13.0.0, does not require considering project emissions and leakage emissions from wind power projects.	
B.2.4	In case of grid connected electricity project: is the relevant grid correctly identified in accordance with the latest version of tool to calculate emission factor of electricity system and the underlying methodology?	/01/ /07/ /10/		Yes; NEWNE grid is correctly identified as the relevant grid for the project activity in accordance with the latest version of the "tool to calculate the emission factor for an electricity system" version 2.2.1. The approach is also in line with the applied methodology.	OK
B.2.5	Does the project involve other emissions sources not foreseen by the methodologies that may question the applicability of the methodology? Do these sources contribute by more than 1% to the estimated emission reductions of the project?	/01/	D R	The validation did not reveal any other emission sources, which may contribute to more than 1% to the estimated emission reductions of the project since this is only a windmill project which involves mainly the assembly of components at site and erection.	OK
B.3 Identification of the Baseline Scenario					
B.3.1	Which baseline scenarios have been identified? Is the list of the baseline scenarios complete? Does the PDD follow the steps to determine the baseline scenario required by the methodology/tool?	/01/ /06/ /07/	DR/C C	The baseline scenario has been chosen as per the methodology ACM0002 version 13.0.0. According to the methodology the baseline scenario is, 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 as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". Since the approved methodology that is applied prescribes the baseline scenario, no further analysis of alternatives is required, according to paragraph 115 of the CDM-VVS, version 02.0. Further, as per the methodology, no step wise approach is required to identify the baseline scenario for new grid connected renewable power plant/unit. However, data and parameters used to determine baseline are not mentioned in section B.4 of the PDD.	CAR-10 OK
B.3.2	How have the other baseline scenarios been eliminated in order to determine the baseline?	/01/ /07/	DR	Since the approved methodology that is applied prescribes the baseline scenario, no further analysis is required, according to paragraph 115 of the CDM-VVS, version 02.0.	OK
B.3.	What is the baseline scenario? Is the	/01/ /07/	DR/ CC	As stated in section B.3.1 above, the baseline scenario is	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
3	determination of the baseline scenario in accordance with the guidance in the methodology?		the electricity delivered to the grid by the project activity that would have been generated by the operation of grid-connected power plants and by addition of new generation sources, as reflected in the combined margin calculations described in the “tool to calculate the emission factor for an electricity system”. It has been determined in accordance with the guidance in the applied methodology ACM0002, Version 13.0.0.	
B.3.4	Has the baseline scenario been determined using conservative assumptions? Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies (E+ / E-), macro-economic trends and political aspirations?	/01/ /06/ /07/	DR Since the approved methodology that is applied prescribes the baseline scenario, no further analysis is required, according to paragraph 115 of the CDM-VVS, version 02.0. However, the PP has considered national and sectoral policies while discussing the baseline scenario in section B.5 of the PDD.	OK
B.4 Additionality				
B.4.1	What tool does the project use to assess additionality? Is this in line with the methodology?	/01/ /07/	DR The project additionality is discussed as per “tool for the demonstration and assessment of additionality” version 06.0.0. This is in line with the methodology.	OK
B.4.2	What is the project additionality mainly based on?	/01/ /07/ /09/ /28/	DR/ CC The PP has demonstrated the project additionality as per the investment analysis of the “tool for the demonstration and assessment of additionality” version 06.0.0. And in doing so, PP has referred to the “Guidelines on the assessment of investment analysis” version 05, Annex 05 of EB 62 dated 15/07/2011. PP opted for benchmark analysis and has chosen equity IRR as the financial indicator.	OK
B.4.3 Prior consideration of CDM				
B.4.3.1	What is the starting date of the proposed project activity? Is it in accordance with the CDM Glossary of Terms?	/01/ /11/ /16/ /17/	D R / C C As per section C.1.1 of the PDD, the start date of the project activity is 03/05/2012 which is the date of signing the term sheet between the project proponent and technology supplier (M/s Gamesa Wind Turbines Private Limited) for supplying 25 numbers of G97/2 MW WTGs and 29 numbers G58/0.85 MW WTGs. The validation team has cross checked the copy of the agreement and found that the term sheet clause no. 11 (payment terms) says that the advance payment shall be payable upon the signing of the project contract. Therefore PP has to justify the suitability of choosing start date as per Glossary of CDM terms” version	CL-4 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				06 dated 02/03/2012.	
B.4.3.2	Is the project activity a new project activity or existing project?	/01/ /16/ /17/	D R / C C	The project is a new project activity since the start date is after 2 August 2008. This has been confirmed from the signed term sheet between the project proponent and technology supplier (M/s Gamesa Wind Turbines Private Limited) for supplying 25 numbers of G97/2 MW WTGs and 29 numbers G58/0.85 MW WTGs.	OK
B.4.3.3	For an existing project activity with a start date is prior the date of the PDD publication for GSC, what is the evidence for serious consideration of CDM prior to the time of decision to proceed with the project activity?	/01/ /19/ /20/ /21/ /29/	D R / C C	The project activity is a new project activity as discussed above. x The start date of the project activity is mentioned as 03/05/2012 in the PDD; which is after 2 August 2008 (CDM EB guidelines on CDM consideration). PP intimated host country DNA and UNFCCC regarding the commencement of the CDM project activity as per the "Clean Development Mechanism Project Standard", version 01.0. This has been cross checked from the copy of e-mail sent to UNFCCC and host country DNA dated 16/06/2012 and copy of acknowledgement e-mail sent by UNFCCC to PP dated 18/06/2012. The on 26/06/2012 PP received acknowledgement e-mail from host country DNA. Therefore, prior consideration of CDM for the project activity is demonstrated. The validation team has also checked the prior consideration section on UNFCCC website and observed that the project is listed in prior consideration section on UNFCCC website and date received is shown as 16/06/2012. However, prior CDM consideration as per "Clean Development Mechanism Project Standard" is not made transparent in the PDD.	CAR-11 OK
B.4.3.4	Does the timeline of the project confirm that continuous actions in parallel with the implementation were taken to secure CDM status? Please specify the gap between the documented evidences.	/01/ /05/	D R / C C	Prior CDM consideration has been taken by PP in line with the "Clean Development Mechanism Project Standard", version 01.0 and It is not required to show continuous actions in parallel to implementation to secure CDM status. Please refer to section B.4.3.3 above.	OK
B.4.4 Investment analysis					
B.4.4.1	What is the analysis method used to determine whether the proposed project activity is not (a) the most economically or financially attractive; or (b) economically or financially feasible, without the	/01/ /03/ /28/	D R / C	x The simple cost analysis is not applicable as the project activity will be generating revenue other than the CDM related income. The investment comparison analysis is only applicable if the proposed baseline scenario leaves the	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
	revenue from the sale of certified emission reductions?		C project participant no other choice than to make an investment to supply the same (or substitute) products or services. This option is also not applicable as the proposed baseline scenario does not require the project participant to make an investment. The project participant has applied benchmark analysis to demonstrate the additionality of the project. This is in line with para 16 of CDM EB guideline on assessment of investment analysis, Annex 5 of EB 62 states that "if the alternative to the project activity is the supply of electricity from a grid this is not to be considered as investment and a benchmark approach is considered appropriate".	
B.4.4.2	What the financial indicator is used?	/01/ /28/	D Equity IRR (post tax) is chosen as financial indicator. The financial indicator is appropriate for the type of project activity as per the "guidelines on the assessment of investment analysis" version 05; annex 5 of EB 62 dated 15/07/2011	OK
B.4.4.3	<p>If a benchmark is used, is it ensured that it is selected in accordance with the requirements of the EB guidelines and it represents standard returns in the market?</p> <p>Is the benchmark suitable for the type of financial indicator presented?</p> <p>Is it ensured the any risk premiums applied in determining the benchmark reflect the risks associated with the project type or activity?</p>	/01/ /28/	D Yes; the benchmark is selected as per EB guideline "Guidelines on the assessment of the investment analysis" (Version 05, EB 62). In accordance to the guideline if the project could be developed by an entity other than the project participant, then the benchmark must be based on the parameters available in the market. Further, the investment analysis guideline also recommends country and project specific expected returns on equity in Appendix of the guideline. The appendix also states that in situations when an investment analysis is carried out in nominal terms, the project participants can convert the real term values provided in the table to nominal values by adding the inflation forecast of the central bank of the host country for the duration of the crediting period. Accordingly, PP also considered default expected return on equity for energy industries (Group 1) applicable for India as 11.75% and referring the guideline, PP converted the real term interest into nominal interest considering inflation rate as 4.76%. Accordingly, the resulted benchmark considering this approach arrived at a value of 17.75%. However, PP is	CAR-12 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>requested to clarify the following:</p> <ol style="list-style-type: none"> 1. The basis for taking the average of the inflation values of 5 years and 10 years period. 2. The basis for considering the RBI report dated 12/08/2011. 3. PP is requested to make it transparent in the PDD whether the nominal benchmark has been considered? If so the calculation for equity IRR is also done on nominal basis. 4. PP is requested to clarify how the inflation rate (6%) considered is relevant at the time of decision making. 	
B.4.4.4	<p>Is the investment analysis carried out in accordance with specific guidance from EB?</p> <p>Is the investment analysis complete and accurate?</p> <p>Is the investment analysis provided in a spreadsheet version? Are all the formulas used readable and all relevant cell be viewable and unprotected?</p>	/01/ /28/	<p>D R / C C</p> <p>The investment analysis is carried out in accordance with EB guideline "Guidelines on the assessment of the investment analysis" (Version 05, EB 62). The investment analysis is provided in a spreadsheet.</p>	OK
B.4.4.5	<p>Cross-check the parameters used in the financial analysis against third party or publicly available sources (all parameters used as input values shall be cross-checked and assessed).</p>	/01/ /22/ /25/ /26/ /28/	<p>Input parameters used in the financial analysis are cross checked against credible sources (third party or publicly available documents). However, PP is requested to clarify the following:</p> <ol style="list-style-type: none"> 1. The offer letter from Gamesa giving 58 numbers of G 58 model of 850 kWh, but for calculation only 29 WTGs have been considered, kindly clarify. 2. It is not clear from the PDD and the investment analysis worksheet how the PLF is considered is in line with the "Guidelines for the reporting and validation of plant load factors" version 01 annex 11 of EB 48 dated 17/07/ 2009. The PLF report 	<p>CAR-13, CL-05 OK</p>

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>submitted by PP is prepared by Garrad Hassan India Private Limited, whereas, in the IRR worksheet it is mentioned as AWS Truepower, LLC. Further, the PLF report is not signed. Net electricity generation in the PLF report by Garrad Hassan India Pvt. Ltd. is not matching with net electricity generation in IRR worksheet. PP is requested to clarify on this.</p> <ol style="list-style-type: none"> PP is requested to clarify how the PLF considered in the project activity is applicable at the time of investment decision. The offer letter from technology supplier dated 06/03/2012 submitted by PP is not signed. Also the board resolution is in the name of M/s ReNew Wind Power Private Limited and not in the name of the PP as per the PDD. PP is requested to clarify the basis for considering the life of the assets as 20 years. PP is requested to clarify that the cell B17 in the excel sheet mentions O&M from 4th year onwards; however O&M is considered from the first year. PP is requested to clarify the basis for the service tax rate considered. PP has considered preferential tariff as per MERC tariff order for wind zone-I. PP is requested to clarify how it can be ensured that the project location falls under wind zone –I and the PLF is considered for wind zone-I. PP is requested to clarify the reason for not considering inflation in tariff for the life of the asset. PP is requested to provide the basis for insurance cost considered in the project activity. The offer letters from Gamesa are submitted but both the offer letter has not been signed. Also, the 	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>breakup of project cost mentioned in the offer letters do not match with the project cost considered. The term sheets for 24.65 MW project and 50 MW project. The project cost has been considered as per Annexure 2 'Project Price' but it is noted that labour charges for 24.65MW project have been taken at Rs. 65.524 million instead of Rs. 62.524 million, kindly rectify the same.</p> <p>12. PP is requested provide the CA certificate for the actual project cost incurred and source for project cost financing.</p> <p>13. Please note that the PP's name in the PDD is ReNew Wind Energy (Jath) Private Limited and in the term sheet is M/s ReNew Wind Power Private Limited, Kindly clarify the differences in the name.</p> <p>14. PP is requested to clarify why in the calculation of book depreciation, asset cost has been fully written off. Also provide the depreciation policy of the company.</p> <p>15. PP has to clarify that; why book and tax depreciation has been calculated only for G58 type of WTG?</p> <p>16. PP is requested to clarify the basis for not considering development cost, labour charges and service tax on these items for depreciation calculation.</p> <p>17. The source for salvage value of the project activity is given as 'page 60 of MERC tariff order'. However, the same is not found in the tariff order. PP is requested to provide the source of salvage value. Further, PP is requested to clarify the basis for taking salvage value of land at 10% when no depreciation is changed for land.</p> <p>18. PP is requested to provide the loan sanction letter and current status of loan.</p> <p>19. PP is requested to clarify the basis for considering quarterly repayments in the interest calculation.</p>	

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				<p>20. PP is requested to clarify the basis for considering margin money at 25% of the working capital. Further PP is doesn't provide the details of margin money in the PDD.</p> <p>21. PP is requested to mention the assessment year for which the tax rates have been considered.</p> <p>22. PP is requested to provide the source for CER price and exchange rate considered.</p>	
B.4.4.6	Are the input values used in the investment analysis valid and applicable at the time of the investment decision taken by the PP?	/01/ /03/	D R / C C	Please refer to section B.4.4.3 and B.4.4.5 above.	CAR 11, CAR 12, CAR 13, CL 4 OK
B.4.4.7	Where applicable, the PFL has been defined ex-ante according to the applicable EB guideline?	/01/ /30/	D R / C C	It is not clear from the PDD and the investment analysis worksheet how the PLF is considered is in line with the "Guidelines for the reporting and validation of plant load factors" version 01 annex 11 of EB 48 dated 17/07/ 2009	CL 4 OK
B.4.4.8	Does the time period of the investment analysis reflect the expected operation of the underlying project activity (technical lifetime)?	/01/ /03/ /16/ /17/	D R / C C	Yes; the investment analysis is carried out for 20 years which is also the operational life of the project activity. However the PP is requested to provide evidence for the same.	CAR 07 OK
B.4.4.9	Does the fair value of the project activity assets is included at the end of the assessment period as a cashflow in the final year? Is the fair value calculated in accordance with local accounting regulations where available or international best practice?	/01/ /28/	D R	Yes; fair value is included at the end of the assessment period as cash inflow in the final year. Please refer CAR 13	CAR 13 OK
B.4.4.10	Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the Host Country	/01/ /03/	D R / C C	Please refer to section B.4.4.5 above.	CAR 12, CL 5 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.4.4.11	Sensitivity analysis: have the key parameters contributing to more than 20% of the revenue/costs during operating or implementation been identified?	/01/ /03/ /28/	D R / C C	Yes; the sensitivity analysis considers main parameters such as project cost, PLF (net generation), electricity tariff and O & M cost which either constitute 20% of cost or revenue. This is in line with the "guidelines on the assessment of investment analysis" version 05, annex 5 of EB 62.	OK
B.4.4.11	Sensitivity analysis: is the range of variations is reasonable in the project activity? The main parameters can be changed for the different project category.	/01/ /28/		PP is requested to justify the sensitivity range of $\pm 10\%$ with actual values of input parameters. Further, the PDD does not describe the required variations of key parameters to reach the benchmark and the possibility of happening the same. The PDD doesn't transparently mentions the sensitivity analysis for debt equity ratio in the PDD.	CAR-14 OK
B.4.4.12	Have the key parameters been varied to reach the benchmark and the likelihood of this happening been justified to be small?	/01/	D R	Please refer to section B.4.4.11 above.	CAR-14 OK
B.4.5 Barrier analysis					
B.4.5.1	Are the barriers identified complimentary to a potential investment analysis?	/01/09/	D R / C C	Since, step 3 (Barrier analysis) of the "tool for the demonstration and assessment of additionality" is optional if step 2 (Investment analysis) is followed. Hence, PP has not discussed barrier analysis in the PDD. This is in line with the applied tool and hence accepted by the validation team.	OK
B.4.5.2	How were the investment barriers assessed to be real?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
	How were the technological barriers assessed to be real?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.5.3	How were the other barriers assessed to be real?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.5.4	Barriers due to prevailing practice (First of its kind): does the project apply measures currently covered in the framework (fuel and feedstock switch, switch of technology with or without change of energy source, methane destruction, methane formation avoidance)?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.4.5.5	Barriers due to prevailing practice (First of its kind): do the technologies deliver the same output and differ by at least of energy source/fuel, feed stock, size of installation?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.5.6	Barriers due to prevailing practice (First of its kind): does the applicable geographical area is in compliance with the definition as per the EB guideline?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.5.7	Is the project activity prevented by the identified barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.5.8	How the CDM can alleviate the identified barriers?	/01/	D R	Barrier analysis is not carried out in the project activity. Hence, not applicable to discuss in this section.	OK
B.4.6 Common practice analysis					
B.4.6.1	Does the project apply measures currently covered in the framework (fuel and feedstock switch, switch of technology with or without change of energy source, methane destruction, methane formation avoidance)?	/01/ /09/	D R / C C	Yes; the project falls under “switch of technology with or without change of energy sources” measures as covered in the framework.	OK
B.4.6.2	Do the technologies deliver the same output and differ by at least of energy source/fuel, feed stock, size of installation, investment climate in the date of the investment decision, other features?	/01/ /09/	D R / C C	The PDD is not transparent on the different technologies in the context of common practice as per the “tool for the demonstration and assessment of additionality”. Although, in step 3 under common practice analysis in the PDD, PP has mentioned about different investment climate, the same is not made transparent with credible source. PP is requested to describe the same with credible source in the PDD.	CAR-15 OK
B.4.6.3	Does the applicable geographical area is in compliance with the definition as per the EB guideline?	/01/ /09/	D R / C C	Yes; PP has considered host country (India) as applicable geographical area which is default applicable geographical area as per the “tool for the demonstration and assessment of additionality”.	OK
B.4.6.4	How many similar non-CDM-projects exist in the region within the scope? (describe how the steps of the additionality tool	/01/ /09/	D R	PP has discussed the common practice in stepwise as per the “tool for the demonstration and assessment of additionality”. However, please clarify:	CAR-16, CL-06 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
	have been applied)		<ol style="list-style-type: none"> 1. How solar project has been considered as zero 2. PP is requested to provide the detailed list of thermal plants, hydro plants, biomass plants and wind projects that have been considered in Nall. It is mentioned in the PDD that out of 31 wind projects 27 projects are installed in different states. PP is requested to substantiate the same with supporting documents. 3. It is mentioned that out of 4 projects in Maharashtra 3 are under CDM however, no details have been provided for the same <p>In addition, please explain the following:</p> <ol style="list-style-type: none"> 1. As India has been considered as applicable geographical area, it is not clear how projects outside Maharashtra have been excluded. 2. The reason for considering CEA database version 6 instead of version 7. 3. The source (web-link of footnote 18) provided for biomass based power plants are not correct and; the web-link for footnote 17 is not working. 	
B.4.6.5	What is the data source(s) used for the common practice analysis?	/01/	D R Please refer to section B.4.6.4 above.	CAR 15, CAR 16, CL 06 OK
B.4.7 Conclusion				
B.4.7.1	What is the conclusion with regard to the additionality of the project activity?		The project additionality shall be concluded after satisfactory conclusion of CAR 11, CAR 12, CAR 13, CAR 14, CAR 15, CAR 16, CL 4, CL 5 and CL 06	CAR 11, CAR 12, CAR 13, CAR 14, CAR 15, CAR 16, CL 4, CL 5 CL 06

Checklist Question		Reference	MoV ¹	Comments	Conclusion
					OK
B.5 Algorithms and/or formulae used to determine emission reductions					
B.5.1 Baseline emissions					
B.5.1.1	Are the steps and equations applied to calculate the baseline emissions in compliance with the requirements of selected baseline and monitoring methodology?	/01/ /07/ /10/ /15/	DR/ CC	<p>Yes; the baseline emissions are calculated in the PDD as per ACM0002, version 13.0.0 and as follows:</p> $BE_y = EG_{PJ,y} * EF_{grid,CM,y}$ <p>Where,</p> <p>BE_y is the baseline emissions. $EG_{PJ,y}$ is the quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr) and $EF_{grid,CM,y}$ is the 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” (tCO₂/MWh).</p> <p>Since, the project activity is a green-field project activity,</p> $EG_{PJ,y} = EG_{facility,y}$ <p>The calculation of emission factor is based on the “Tool to calculate the emission factor for an electricity system”, version 02.2.1, annex 19 of EB 63 dated 29/09/2011. Step wise approach as per the tool is followed in the PDD. In addition, “CO₂ baseline database for Indian power sector” version 07 of January 2012, published by Central Electricity Authority which is the latest available data at the time of PDD submission to the DOE is referred for estimating the grid emission factor.</p>	OK
B.5.1.2	<p>Have conservative assumptions been used when calculating the baseline emissions and are the uncertainty estimates properly addressed?</p> <p>Are all the values used in the PDD considered reasonable in the context of the proposed project activity?</p>	/01/02/07/ /32/	DR/ CC	<p>The baseline emissions are estimated in line with the approved methodology. The net electricity generation is estimated considering a PLF of 23.07%. Further, “CO₂ baseline database for Indian power sector” version 07 of January 2012, published by Central Electricity Authority which was the latest available data at the time of PDD submission to the DOE is referred for estimating the grid</p>	CAR-17 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>emission factor.</p> <p>However, it is not clear from the PDD and the investment analysis worksheet how the PLF is considered is in line with the "Guidelines for the reporting and validation of plant load factors" version 01 annex 11 of EB 48 dated 17/07/ 2009. The PDD is not transparent whether, OM is calculated as per ex-ante option or ex-post option. The calculation approach of simple OM is not in line with the tool. The formula of OM calculation presented in the PDD is not applied in the emission reduction worksheet. For the build margin (BM) calculation, the formula presented in the PDD is not applied in the emission reduction worksheet. The combined margin emission factor calculation worksheet is not in line with the CEA database version 07.</p>	
B.5.1.3	Baseline Emissions estimated (in case of different components applied please make them transparent).	/01/ /02/	DR	<p>Baseline emissions estimated ex-ante is 48, 952 tCO₂/year. However, please refer to section B.5.1.2 above.</p> <p>CAR-17 OK</p>
B.5.2 Project emissions				
B.5.2.1	<p>Are the steps and equations applied to calculate the project emissions in compliance with the requirements of selected baseline and monitoring methodology?</p> <p>Are all the values used in the PDD considered reasonable in the context of the proposed project activity?</p>	/01/ /07/	DR/ CC	<p>Yes; project emissions are discussed as per applied methodology ACM0002, version 13.0.0. In line with the methodology the project does not have any project emissions.</p> <p>OK</p>
B.5.2.2	Have conservative assumptions been used when calculating the project emissions and are the uncertainty estimates properly addressed?	/01/ /07/	DR/ CC	<p>Please refer to section B.5.2.1</p> <p>OK</p>
B.5.2.3	Project emissions estimated	/01/ /07/	DR/ CC	<p>Project emissions are estimated as zero. Considering the project is a wind power project, this is in line with the methodology.</p> <p>OK</p>
B.5.3 Leakage				
B.5.3.1	Are the steps and equations applied to calculate the leakage in compliance with the requirements of selected baseline and monitoring methodology?	/01/ /07/	DR/ CC	<p>As per the applied methodology ACM0002, version 13.0.0, no leakage emissions are required to be considered. This is made transparent in the PDD.</p> <p>OK</p>

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	Are all the values used in the PDD considered reasonable in the context of the proposed project activity?				
B.5.3.2	Have conservative assumptions been used when calculating the leakage and are the uncertainty estimates properly addressed?	/01/ /07/	DR/ CC	Please refer to section B.5.3.1	OK
B.5.3.3	Leakage estimated	/01/ /07/	DR/ CC	Leakage emissions are estimated as zero. This is in line with the methodology.	OK
B.5.4 Emission reductions					
B.5.4.1	Has the methodology been correctly applied to calculate the emission reductions and can this be replicated by the data provided in the PDD and supporting files to be submitted for registration?	/01/ /07/	DR/ CC	<p>The methodology is applied correctly to calculate the emission reductions in the PDD. The baseline emission is estimated multiplying the net electricity supplied to the grid by the project activity with grid emission factor. Net electricity is estimated multiplying the installed capacity (25.5 MW) which is evident from the WTG supply agreement with PLF of the project activity and annual operating hours. The grid emission factor is estimated as per the "tool to calculate the emission factor for an electricity system" version 02.2.1 and publicly available data from the "CO₂ baseline database for Indian Power Sector" version 7 published by Central Electricity Authority. The project emission and leakage emission is not identified as per the applied methodology.</p> <p>However, PP is requested to refer section B.5.1.2 above.</p>	CAR-17 OK
B.5.4.2	Are all the assumptions and data used by the project participants listed in the PDD including their references and sources?	/01/07/	DR/ CC	Please refer to section B.5.4.1 above	CAR-17, CL-5 OK
B.5.4.3	Is all the documentation used by the project participants as the basis for assumptions and source of data quoted and interpreted in the PDD?	/01/07/	DR/ CC	Please refer to section B.5.4.1 above	CAR-17, CL-5 OK
B.5.4.4	Emission Reductions estimated	/01/02/	DR/ CC	Emission reductions estimated is 48,952 tCO ₂ /year. However, please refer to section B.5.4.1 above.	CAR-17, CL-5 OK
B.6 Monitoring plan					

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.6.1 Parameters ex-ante					
B.6.1.1	Does the monitoring plan contain the list of all parameters required by the approved methodology and by the applicable methodological tool?	/01/ /07/	DR/ CC	Yes; the monitoring plan in the PDD contains all parameters required by the approved methodology and the applicable methodological tool. This is further discussed in below sections.	OK
B.6.1.2	How were the parameters available at validation verified?	/01/ /07/	DR/ CC	<p>The following parameters were available at the time of validation:</p> <p>$EF_{grid,OM,y}$ (Operating Margin emission factor): Operating margin emission factor is estimated as per the “tool to calculate the emission factor for an electricity system” and referring the publicly available data published by Central Electricity Authority in the “CO₂ Baseline Database for the Indian Power Sector User Guide, Version 7.0, January 2012. This was the latest data available at time of start of validation.</p> <p>$EF_{grid, BM, y}$ (Build Margin emission factor): Build margin emission factor is estimated as per the “tool to calculate the emission factor for an electricity system” and referring the publicly available data published by Central Electricity Authority in the “CO₂ Baseline Database for the Indian Power Sector User Guide, Version 7.0, January 2012. This was the latest data available at time of start of validation. Accordingly, the Combined margin emission factor ($EF_{grid, CM,y}$) is calculated in line with the tool. However, please refer to section B.5.1.2 above.</p>	CAR-17 OK
B.6.1.3	Which default data have been selected and applied?	/01/ /10/	DR/ CC	<p>The following default values have been selected and applied:</p> <p>Weighting of operating margin emission factor (W_{OM}) as 75% and Weighting of build margin emission factor (W_{BM}) as 25%. This is as per the tool to calculate the emission factor for an electricity system, version 02.2.1.</p>	OK
B.6.1.4	Are all the values used in the PDD considered reasonable in the context of the proposed project activity?	/01/ /07/	DR/ CC	Yes; the values used in the PDD and considered reasonable in the context of the project activity.	OK
B.6.2 Parameters ex-post					
B.6.2.1	Does the monitoring plan described in the PDD comply with the requirements of the methodology and	/01/ /07/	DR/ CC	The methodology requires monitoring of net electricity generation supplied by the project plant to the grid in a	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion	
	the applicable methodological tool?			year. The grid emission factor is estimated ex-ante as per the procedures outlined in “tool to calculate the emission factor for an electricity system” version 02.2.1, of EB 63 dated 29/09/2011.The institutional arrangement for data handling and storage, calibration frequency of energy meter and apportioning procedure to be followed for net electricity export is presented in the PDD.	
B.6.2.2	Does the monitoring plan contain all necessary parameters and are they clearly described?	/01/ /07/	DR/ CC	The following parameters are to be monitored as per the PDD: EG_{facility,y} is the net electricity generation supplied by the project plant to the grid in a year: However, the description of this parameter is not in line with the methodology. Further, the monitoring and measurement procedures are not transparent in the PDD. Monitoring plan is not described correctly in the PDD. Calibration frequency is stated as once in 5 years as per IEGC 2011. It is not clear what calibration does this refer to and for which meter. Similarly, monitoring and measurement procedures of EG_{import,y} and EG_{export,y} needs further clarity. In addition, accuracy class of energy meters is not mentioned in the PDD. The monitoring plan does not include how the data uncertainty shall be addressed and QA/QC procedures transparently. Further PP is requested to provide the supporting evidences of calibration frequency as per the manufacturer specifications.	CAR-18 OK
B.6.2.3	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate? Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/01/ /07/	DR/ CC	Please refer to section B.6.2.2 above.	CAR-18 OK
B.6.2.4	Is the monitoring and recording frequency adequate for all monitoring parameters? Is it in line with the monitoring methodology?	/01/ /07/	DR/ CC	Yes; the net electricity generation supplied to grid shall be measured continuously and recording will be done at least monthly. This is in line with the methodology.	OK
B.6.2.5	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design? Please confirm the ability of the project participants to implement the described monitoring plant.	/01/ /07/	DR/ CC	As per PDD the operation and maintenance of the project activity will be done by ReGen Powertech India Pvt. Ltd. However the technology provider is Gamesa wind turbines Pvt. Ltd. and as per the term sheet signed between Gamesa wind turbines Pvt. Ltd. states that they will be	CAR-19 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				providing comprehensive O&M of the project.	
B.6.3 Management/Quality Assurance/Quality Control					
B.6.3.1	Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	/01/	DR	Day to day record handling ((including what records to keep, storage area of records and how to process performance documentation) procedures are not included in the PDD.	CAR-18 OK
B.6.3.2	Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/01/ /07/	DR// CC	Gross quantity of electricity exported to grid is continuously monitored in the main and check meter installed at the substation. The main meter remains under the custody of state utility. Monthly joint meter reading is taken by state utility and representatives of O & M personnel from the main meter. Since main meter is connected to number of WTGs including the project WTGs; therefore, the apportioning is done entirely by state utility and share certificate is issued to each WTG owner. The share certificate reflects the net quantity of electricity exported to grid by the project WTGs. The net quantity of electricity export to grid from the share certificate will be used directly to quantify the emission reductions achieved from the project activity. From copies of invoices raised by PP to state utility for electricity export can be used to cross check the net electricity export by the project activity. Further, it is stated that the calibration of energy meters are under the provisions of state utility. PP is requested to provide basis for the same.	CAR-18 OK
B.6.3.3	Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?	/01/ /07/	DR/ CC	Yes; all the data recorded under the monitoring plan will be kept till 2 year after the end of crediting period. This is in line with the methodology.	OK
C.1 Crediting period					
C.1.1	What is the expected crediting starting date of the proposed project activity? Does the crediting period start eight week after the request for registration?	/01/	DR	As per the section C.2.2 of the PDD, the expected starting date of crediting period is 01/01/2013 or date of registration of the project activity with UNFCCC whichever is later.	OK
C.1.2	What is the length of the crediting period? Is it clearly defined and reasonable?	/01/	DR	The PP has considered renewable crediting period and the length of first crediting period is considered as 7 years which is reasonable and appropriate.	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
D.1 Environmental impacts					
D.1.1	Has an analysis of the environment impacts of the project activity been undertaken? Is it clearly and sufficiently described in the PDD?	/01/ /05/	DR/ CC	As per the notification of Ministry of Environment and Forest (MoEF), Govt. of India, dated 14/09/2006 and further amendment on 01/12/2009, wind power projects don't fall under the purview of Environmental Impact Assessment notification. However, PP is requested to make the reference of EIA transparently in the PDD and transparently explain in the PDD the environmental analysis carried out for the project activity as required by the paragraph 63 of CDM project standard.	CAR-20 OK
D.1.2	Is the analysis of the environmental impacts required by the legislation of the host Country? If yes, has the EIA has been approved by local Government? Does the approval contain any conditions that need monitoring?	/01/ /30/	DR/ CC	As per the notification of Ministry of Environment and Forest (MoEF), Govt. of India, dated 01/12/2009, wind power projects don't fall under the purview of Environmental Impact Assessment notification.	OK
D.1.3	Is it the project in line with the current environmental legislation in the host Country?	/01/ /30/	DR/ CC	The project is in line with the current environment legislation in the host country (India). Please refer to section D.1.1	CAR-20 OK
D.1.4	Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host country?	/01/ /31/	DR/ CC	Monitoring of sustainable development indicators/ environmental impacts are not warranted by legislation in the host country. However, as per the host country approval procedures the project proponent should commit a certain percentage of the CERs revenue every year (subject to a minimum of 2%) for sustainable development including society/community development and accordingly make monitorable action plan for the same and include in the PDD. The same is not concluded in the PDD.	CAR-24 OK
D.1.5	Are the sustainable development indicators in line with stated national priorities in the host country?	/01/ /31/	DR/ CC	Yes; the sustainable development indicators stated in the PDD are in line with stated national priorities in the host country.	OK
E.1 Local stakeholder consultation					
E.1.1	Are the local stakeholders be invited by the PP prior to the publication of the PDD to the UNFCCC website?	/01/	DR/ CC	The publication of PDD to the UNFCCC website for global stakeholder consultation was from 14/07/2012 to 12/08/2012. Local Stakeholder Consultation was conducted on 26/06/2012, prior to the publication of PDD for webhosting. The validation team interviewed some of the local stakeholders during the site visit and found that the stakeholder meeting was organized by the PP and they participated in the meeting. However, date of invitation to	CAR-02 CL-07 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<p>stakeholders is not mentioned in the PDD.</p> <p>Further PP is requested to provide the minutes of stakeholders meeting as well as proof of invitation sent to the stakeholders.</p> <p>PP is also requested to respond to the global stakeholder comments received as said in section 4 of this report.</p>	
E.1.2	Area the stakeholders invited be considered as regards commenting the proposed project activity?		Please refer to section E.1.1	CL-07 OK
E.1.3	Is the summary of the comments received from the stakeholders, provided in the PDD complete?		Please refer to section E.1.1	CL-07 OK
E.1.4	Has due account been taken by the project participants of any stakeholder comments received?		Please refer to section E.1.1	CL-07 OK
E.1.5	If a stakeholder consultation process is required by regulations/laws in the host Country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/01/ /31/	DR/ CC Stakeholder consultation is not required as per the regulation/law in the host country.	OK

TABLE 3 RESOLUTION OF CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
<p>CAR 1:</p> <p>PP is requested to submit the Letter of Approval from host country DNA.</p>	A.1.1, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7	PP has already applied for the Letter of Approval from National CDM Authority, Govt. of India, and submit the same on availability.	<p>1st Review:</p> <p>The LoA from the host country is still not submitted. CAR is open.</p> <p>2nd Review:</p> <p>PP has submitted the LoA from the host country and found acceptable. CAR is closed.</p>
<p>CAR 2:</p> <p>The PDD is not transparent on the following as per the latest "Guidelines for completing the project design document form", version 01.0, Annex 8 of EB 66 dated 02/03/2012.</p> <ol style="list-style-type: none"> 1. The section A.2.4 of the PDD is not in line with the guidelines for completing the PDD. The description exceeds one page. 2. As per guidelines load factor is to be mentioned in section A.3 3. The average life time and efficiency of the equipments is not mentioned in the section A.3 4. Data used for baseline are not mentioned in section B4 5. Comments made by stakeholders and identification of stakeholders who made comments are not included in section E.2 of the PDD. 	A.1.2, B.3.1, E.1.1, E.1.3, E.1.4	<ol style="list-style-type: none"> 1. The PDD has been revised accordingly. 2. The generation information has been included in the section A.3 of the revised PDD. 3. The life expectancy of the project equipments has been incorporated section A.3 of the revised PDD. PP has no data and reference of the specific efficiency of the project in terms conversion of wind energy to electrical energy and thus restrained to comments on it. <p>2nd Response:</p> <p>The Type Certificate as issued by DNV in support of life expectancy of 2000 KW G97 model has been included along with this submission.</p> <p>4. The same has been incorporated in section B.4 of the revised PDD.</p>	<p>1st Review:</p> <p>The PP has revised the PDD and the validation team confirmed that the revision made is in line with the guidelines for completing the PDD. Hence accepted.</p> <p>The PP has included the load factor details and average lifetime of the project activity. Further PP has submitted General Characteristics Manual pertains to 850 Kw which mentions the technical parameters. However requested to provide General Characteristics Manual for 2000KW G97 model. Open.</p> <p>PP has revised the section B.4 of the PDD and found acceptable.</p> <p>PP has submitted the minutes of the stakeholders meeting and the found</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		5. Comments made by the stakeholders are already included in the section E.2 of the PDD. Also the reference of the Stakeholder Consultation Meeting – Minutes of the Meeting has been included and the same has been submitted to the DoE.	that the section E.2 of PDD is in line with the document provided and hence acceptable. CAR 2 is open. 2nd Review: The PP has submitted the third party certificate and found appropriate. Hence acceptable. CAR 2 is closed.
CAR 3: The information regarding the actual implementation status or planning of the project activity is not provided in the PDD transparently. Also the existing scenario prior to the project activity is not transparent in the PDD. Further the project activity is the installation of 29 WTGs each of 0.85 MW and 25 WTGs of 2 MW capacity totaling 74.65 MW; however proposal from GAMESA is for 25 nos of 2 MW (50 MW) and 58 nos of 0.85 MW (49.3 MW) totaling 99.3 MW. PP is requested to justify the same.	A.2.3	The actual implementation status/ planning, is very much prominent from the discussion in section B.5, chronology of events as well as section C.1.1 and C.2.2. The guideline for PDD does also not contain any specific direction on the same issue. Initially after discussion with the PP the technology supplier has submitted their offer with proposal of 25 Nos. WTGs of 2 MW and 58 Nos. WTGs of 0.85 MW, totalling 99.3 MW. But PP after due consideration has taken decision to go ahead with 74.65 MW only consisting 25 WTGs of 2 MW and 29 Nos. WTG of 0.85 MW, which is also evident from the term sheet as executed between the PP and technology supplier, which is submitted to the DoE. 2 nd Response: PP has addressed the DOE response to point 11 of CAR 13.	1 st Review: The validation team has reviewed the PDD and confirms that the project activity is in the initial stage. Further it has been confirmed during the site visit. The validation team has confirmed from the Board Decision note on 23/03/2012 that, the PP has decided to go ahead with 74.65 MW wind power project activity. PP has also submitted the term sheet which is signed with the Gamesa for setting up of 74.65 MW the wind power project activity. Further PP has sourced the cost from term sheet as signed between the PP and the technology supplier, being conservative in comparison to the offer price. However PP is requested to refer DOE response to point 11 of CAR 13. Open

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			2 nd Review: Please see the validation conclusion of point 11 of CAR 13. CAR 3 is Closed.
CAR 4: PP is requested to submit the latest version of the Modalities of Communication statement (F-CDM-MOC) and documentary evidence to check the authenticity of the signing authority.	A.4.1, A.4.2, A.4.3, A.4.4, A.4.5	The same has been included with this submission.	1 st Review: PP has submitted the document and found appropriate. CAR 4 is closed.
CAR 5: It was noticed that the coordinates has been provided in the decimal system. PP is requested to present the coordinates (latitude and longitude) in degree, minutes and seconds form.	A.5.1	PP and technology supplier are both communicated about the coordinates in decimal system, which is also one of the proven and standard scientific way to expressing global positioning also UNFCCC guidelines does not provide any specific guidance on the same, so PP like to go ahead with decimal system in expressing exact global positioning.	1 st Review: The justification provided by the PP is found appropriate. Hence accepted. CAR 5 is closed.
CAR 6: The technical specification mentioned in PDD for G97 is not consistent with that of the reference provided.	A.5.3	The same has been revised in the revised PDD.	1 st Review: The validation team has reviewed the PDD and the revision made is appropriate. Hence accepted. CAR 6 is closed.
CAR 7: PP is requested to make it transparent and provide evidence for the operational life time of the WTGs.	A.5.4	The General Characteristic Manual as supplied by the technology supplier has been included with this submission as an evidence of operational life time. Please refer to 1 st paragraph of page 3 of 21. 2 nd Response: The Type Certificate as issued by DNV in support of life expectancy of	1 st Review: The PP has submitted the General Characteristics Manual pertains to 850 Kw which mentions a guaranteed life of 20 years by the technology supplier. The validation team has verified the operational lifetime from the same and found appropriate. However PP is requested to submit the document on technical

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		2000 KW G97 model has been included along with this submission.	specification General Characteristics Manual pertains to 2000KW G97 model. Open 2 nd Review: The PP has submitted the third party certificate and found appropriate. Hence acceptable. CAR 7 is closed.
CAR 8: The PDD mentions the applicable tools in relevant section of the PDD. However, PP is requested to include the applicability conditions of the tools in the section B.2 of the PDD.	B.1.3	PP has described the section B.2 in line with Guideline for completing the project design document form; version 1.0; annex 8 of EB 66, in the revised PDD.	1 st Review: The validation team has confirmed that PP has described the applicability conditions of methodology/tools in the relevant section(s) of the PDD. Hence CAR 8 is closed.
CAR 9: The metering point(s) of net quantity of electricity export to grid is not transparent in the project boundary and the description of project boundary is not mentioned in the PDD. The monitoring plan does not include the substation name in the PDD.	B.2.1, B.2.2	The metering point of net quantity of electricity export to grid has been transparently shown and description of the project boundary has been included in the revised PDD. The name of the substation has yet to be finalized.	1 st Review: PP has revised the section B.3 of the PDD and the revision made is found appropriate. During the site visit the validation team has confirmed that the project activity is in its installation phase and the substation is not yet finalized. The finalization of the substation is not under the control of PP. Hence accepted. CAR 9 is closed.
CAR 10: Data and parameters used to determine baseline are not mentioned in section B.4 of the PDD.	B.3.1	The same has been incorporated in the revised PDD.	1 st Review: PP has revised the PDD section B.4 and the revision made is found appropriate. Hence CAR 10 is closed.
CAR 11: Prior CDM consideration as per "Clean Development Mechanism Project Standard" is not made transparent in the PDD.	B.4.3.3, B.4.4.6, B.4.7.1	The same has been revised in the revised PDD.	1 st Review: PP has revised the section B.5 of the PDD. PP has corrected the start date of the project activity, i.e. the date on

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			<p>which first payment is made to the technology provider (Gamesa). PP has submitted the evidence for the same.</p> <p>The validation team has verified the document and found appropriate; and the start date is in accordance with the glossary of CDM terms. Hence CAR 11 is closed.</p>
<p>CAR 12:</p> <p>PP is requested to clarify the following:</p> <ol style="list-style-type: none"> 1. The basis for taking the average of the inflation values of 5 years and 10 years period. 2. The basis for considering the RBI report dated 12/08/2011. 3. PP is requested to make it transparent in the PDD whether the nominal benchmark has been considered? If so the calculation for equity IRR is also done on nominal basis. 4. PP is requested to clarify how the inflation rate (6%) considered is relevant at the time of decision making. 	<p>B.4.3.3, B.4.4.6, B.4.4.10, B.4.7.1</p>	<ol style="list-style-type: none"> 1. The basis of inflation has been revised from 'annual average percentage change over next ten years' value as sourced from RBI in the revised PDD. 2. The same has been revised to the RBI report dated 23rd January 2012, (http://rbi.org.in/scripts/PublicationsView.aspx?id=14022) as per the latest available during the decision making. 3. The same has been incorporated in the revised PDD 4. The same has been revised in the revised PDD in line with latest RBI report as was available during the decision making. 	<p>1st Review:</p> <ol style="list-style-type: none"> 1. PP has revised the PDD; and in the revised PDD the inflation rate has been sourced from the inflation rate forecast of the central bank of the host country (RBI). The value is consistent and in line with the Guidelines on the assessment of investment analysis. The validation team has confirmed that forecast is done for 10 years which covers the projects crediting period. Hence accepted. 2. PP has updated the value with the latest available data available during the time of decision making and the value is found conservative. Hence accepted. 3. The validation team ensured that the revised PDD mentions that the investment analysis is carried out in nominal terms and hence, accepted. 4. PP has updated the value with the latest available data on inflation rate

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			published by the central bank of the host country (RBI). Further the validation team has checked the source and found that the value sourced is published on 23/01/2012, where as the Investment decision was made on 23/03/2012. That is the time difference is only 2 months and the value is forecasted for the period 10years. Further value was available during the time of decision making. Hence accepted. CAR 12 is closed
<p>CAR 13: PP is requested to clarify the following:</p> <ol style="list-style-type: none"> 1. The offer letter from Gamesa giving 58 numbers of G 58 model of 850 kWh, but for calculation only 29 WTGs have been considered, kindly clarify. 2. It is not clear from the PDD and the investment analysis worksheet how the PLF is considered is in line with the "Guidelines for the reporting and validation of plant load factors" version 01 annex 11 of EB 48 dated 17/07/ 2009. The PLF report submitted by PP is prepared by Garrad Hassan India Private Limited, whereas, in the IRR worksheet it is mentioned as AWS Truepower, LLC. Further, the PLF report is not signed. Net electricity generation in the PLF report by Gerrad Hassan India Pvt. Ltd. is not matching with net electricity generation in IRR worksheet. PP is requested to clarify 	B.4.4.5, B.4.4.8, B.4.4.9, B.4.7.1	<p>1. PP during decision making has only considered to implement the project for only 29 WTGs of G58 model, which is also evident from the term sheet as executed between PP and technology supplier, as submitted to the DoE.</p> <p>2. At the time of decision making PP has considered the probable PLF of the project as per MERC tariff order, as 23%. Later the third party PLF study as carried out by PP, it shows that the project is estimated to have and generation of 147.6 MU at P-90 level, but being on the conservative assumption the PLF as sourced from MERC has been kept for financial additionality analysis.</p> <p>The source of the PLF has been wrongly tabulated and the same has been rectified in the revised financial</p>	<p>1st Review:</p> <p>1. Since the term sheet mentions only 29 WTGS of G58 model, the same has been accepted.</p> <p>1st Review:</p> <p>2. The justification provided by PP is appropriate and hence acceptable. PP has revised the PDD and corrected the error; the same has been revised in the financial model. This part of the CAR is closed.</p> <p>1st Review:</p> <p>3. Refer to Response 2.</p> <p>1st Review:</p> <p>4. PP has submitted the signed copy of the offer letter and found appropriate. Hence accepted.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
<p>on this.</p> <p>3. PP is requested to clarify how the PLF considered in the project activity is applicable at the time of investment decision.</p> <p>4. The offer letter from technology supplier dated 06/03/2012 submitted by PP is not signed. Also the board resolution is in the name of M/s ReNew Wind Power Private Limited and not in the name of the PP as per the PDD.</p> <p>5. PP is requested to clarify the basis for considering the life of the assets as 20 years.</p> <p>6. PP is requested to clarify that the cell B17 in the excel sheet mentions O&M from 4th year onwards; however O&M is considered from the first year.</p> <p>7. PP is requested to clarify the basis for the service tax rate considered.</p> <p>8. PP has considered preferential tariff as per MERC tariff order for wind zone-I. PP is requested to clarify how it can be ensured that the project location falls under wind zone –I and the PLF is considered for wind zone-I.</p> <p>9. PP is requested to clarify the reason for not considering inflation in tariff for the life of the asset.</p> <p>10. PP is requested to provide the basis for insurance cost considered in the project activity.</p> <p>11. The offer letters from Gamesa but both</p>		<p>model and revised PDD.</p> <p>3. Please refer to the response in point 2 of this CAR.</p> <p>4. The offer letter duly authenticated from the technology supplier has been included along with the submission.</p> <p>M/s ReNew Wind Energy (Jath) Private Limited is a SPV of M/s ReNew Wind Power Private Limited, who holds almost all the equity in the company (please refer to the memorandum of association to the company as attached with this submission). So during the initial phase of the operation all the decision has been taken at the board of M/s ReNew Wind Power Private Limited being the majority and decisive shareholder of the company.</p> <p>2nd Response: The Memorandum of Association has been attached in annexure with this submission.</p> <p>5. The life of the project has been sourced from the General Characteristic Manual as supplied by the technology supplier, which is attached with this submission.</p>	<p>The justification provided by the PP is found appropriate, however PP is requested to submit memorandum of association to the company. Open.</p> <p>2nd Review: PP has submitted the memorandum of association. The validation team has verified the same and found that 99.99% shares of the M/s ReNew Wind Energy (Jath) Private Limited belong to M/s ReNew Wind Power Private Limited. This part of CAR 13 is closed.</p> <p>1st Review: 5. PP has submitted the technical specification provided by the technology provider. The validation team has verified the operational lifetime of the project activity and found that the life of the assets considered is in line with the operational lifetime of the project activity. However PP is requested to provide the basis for considering the life of 2000KW G97 model as 20 years. open</p> <p>2nd Review: The PP has submitted the third party certificate and found appropriate. Hence acceptable.</p> <p>1st Review:</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
<p>the offer letter has not been signed. Also, the breakup of project cost mentioned in the offer letters do not match with the project cost considered. The term sheets for 24.65 MW project and 50 MW project. The project cost has been considered as per Annexure 2 'Project Price' but it is noted that labour charges for 24.65MW project have been taken at Rs. 65.524 million instead of Rs. 62.524 million, kindly rectify the same.</p> <p>12. PP is requested provide the CA certificate for the actual project cost incurred and source for project cost financing.</p> <p>13. Please note that the PP's name in the PDD is ReNew Wind Energy (Jath) Private Limited and in the term sheet is M/s ReNew Wind Power Private Limited, Kindly clarify the differences in the name.</p>		<p>2nd Response: The Type Certificate as issued by DNV in support of life expectancy of 2000 KW G97 model has been included along with this submission.</p> <p>6. The cell B17, it was a tabulation mistake as evident from source referred, the same has been rectified in the revised PDD.</p> <p>7. Service tax has been taken on 12.36% as per the terms sheet signed between PP and technology supplier. The same was also publically available as per the proposed Union Budget during the decision making.</p> <p>2nd Response: The Service Tax can be verified from http://www.servicetax.gov.in/; Point 3. Existing scheme for levy, assessment & collection of Service Tax in India</p> <p>8. At the time of decision making the PLF of the site has been sourced from case no 153 of 2011 of MERC (http://www.mercindia.org.in/pdf/Order%2058%2042/Order_Case%20No.%20153%20of%202011%20Dt%2012-01-2012.pdf), according to which it is see the jath site of Gamesha is having average wind density less than 200 W/m², which belong to PLF range 20%, which is wind zone -1 as</p>	<p>6. The validation team has reviewed the revision and found appropriate. Hence accepted.</p> <p>1st Review: 7. Please note the term sheet mentions the charges exclusive of taxes. Kindly provide an appropriate web link for the tax rate considered. Open</p> <p>2nd Review: PP has provided the weblink for the tax rate considered and found appropriate. Closed.</p> <p>1st Review: 8. The validation team has confirmed that PP has followed a conservative approach for the assessment of investment analysis. Hence the justification provided by PP is appropriate and acceptable.</p> <p>1st Review: 9. Please note the link provided pertains to a draft order and also not dated and hence, the same is not appropriate. Please note that the tariff, O&M charges, debt equity ratio, interest calculation and working capital are based on the draft tariff order. Open.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>evident from MERC tariff order. But for conservative estimation PP has analyze the investment additionality based on wind zone-2 PLF with wind zone-1 tariff.</p> <p>Later the third party PLF study as carried out by PP, it shows that the project is estimated to have and generation of 147.6 MU at P-90 level, but being on the conservative assumption PLF, which was also available during decision making as per MERC Tariff order, has been kept.</p> <p>9. MERC tariff calculation has already been considered the inflation factor and levelized tariff has been notified. So the inflation is already in consideration in tariff determination. Please refer to the section 1.6 of MERC tariff order (http://www.mercindia.org.in/pdf/Order%2058%2042/MERC_Draft%20RE%20Tariff%20Order%20(SuoMotu)_for%20FY2012-13_Case%20No%2010%20of%202012.pdf) .</p> <p>2nd Response:</p> <p>At the time of decision making this was the only most reliable assumptions source about tariff, O&M charges, debt equity ratio, interest calculation and working capital as was available to the PP and the</p>	<p>2nd Review:</p> <p>The response provided by PP found appropriate. Hence Closed.</p> <p>1st Review:</p> <p>10. Verified that the insurance cost has been removed from the revised IRR calculation sheet and hence, accepted.</p> <p>1st Review:</p> <p>11. The signed offer letters from Gamesa have been received. Please note the source for various costs in the revised PDD and IRR calculation sheet have not been updated as per term sheet, which still shows the source as Gamesa offer. Also, please clarify if the various costs and the capacity are based on the term sheet, how the same was available at the time of decision making. Verified that the rectification for labour charges has been made. Open</p> <p>2nd Review:</p> <p>The justification provided by PP found appropriate, as the financial analysis based on the term sheet is conservative. Hence acceptable.</p> <p>1st Review:</p> <p>12. PP has submitted the CA</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>same has been used.</p> <p>This may be considered appropriate in consideration of the then prevailing tariff order (http://www.mercindia.org.in/pdf/Order%2058%2042/Order_39_of_2011.pdf); Please refer 3.12), on conservativeness as per CDM modalities.</p> <p>10. Insurance cost has been removed on conservative estimation.</p> <p>11. Duly authenticated offer letter from Gamesa has been attached with this submission.</p> <p>The costs has been considered in the financial model are sourced from term sheet as signed between the PP and the technology supplier, being conservative in comparison to the offer. The source reference in the financial model and PDD has been revised accordingly.</p> <p>The financial model has been revised and the tabulation mistake of labour charges for 24.65 MW project has been rectified.</p> <p>The tabulation mistake of source has been rectified in the revised financial analysis as attached with the submission.</p>	<p>certificate and the validation team has verified the CA certificate providing details of advance payments made to Gamesa up to 27/09/2012. Hence accepted.</p> <p>1st Review:</p> <p>13. The basis for the same has not been received. Open</p> <p>2nd Review:</p> <p>PP has submitted the Memorandum of Association of ReNew Wind Energy (Jath) Private Limited, and found the justification provided is appropriate. Hence Closed.</p> <p>Kindly refer to Point 4 of CAR 13.</p> <p>CAR 13 is closed.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>The offer has been received by PP from the supplier on 6th of March and the decision has been taken by the Board on 23rd March, which was based on few levels of negotiations that has happened between the PP and the supplier. Though no documentation is available confirming the negotiated price at the time of decision making but the same is reflected in the term sheet as signed between the PP and the supplier, later.</p> <p>2nd Response:</p> <p>PP has revised the financial model based on the offer from the supplier, as attached with this submission. From the same it can be established that on conservativeness the assumption as presented by the PP may be accepted.</p> <p>12. The CA certificate has been attached with this submission.</p> <p>13. M/s ReNew Wind Energy (Jath) Private Limited is a SPV of M/s ReNew Wind Power Private Limited, who holds decisive majority of equity in the company. So during the initial phase of the operation all the decision and related expenditure has been considered at M/s ReNew Wind Power Private Limited so they have executed the term sheet accordingly.</p>	

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>2nd Response:</p> <p>The Memorandum of Association has been attached in annexure with this submission.</p>	
<p>CAR 14:</p> <p>PP is requested to justify the sensitivity range of $\pm 10\%$ with actual values of input parameters. Further, the PDD does not describe the required variations of key parameters to reach the benchmark and the possibility of happening the same.</p> <p>The PDD doesn't transparently mention the sensitivity analysis for debt equity ratio in the PDD.</p>	B.4.4.11, B.4.4.12, B.4.7.1	<p>The PDD has been revised accordingly.</p> <p>2nd Response:</p> <p>The financial model and the PDD have been revised accordingly, as attached with this submission.</p>	<p>1st Review:</p> <p>In the financial model submitted, the project cost sensitivity does not affect depreciation calculation and salvage value. Open.</p> <p>2nd Review:</p> <p>PP has revised the financial model and the revision made is found appropriate. Hence CAR is closed.</p>
<p>CAR 15:</p> <p>The PDD is not transparent on the different technologies in the context of common practice as per the "tool for the demonstration and assessment of additionality". Although, in step 3 under common practice analysis in the PDD, PP has mentioned about different investment climate, the same is not made transparent with credible source. PP is requested to describe the same with credible source in the PDD.</p>	B.4.6.2, B.4.6.5, B.4.7.1	<p>Necessary corrections have been made to reflect how different technologies have been identified as per the definitions of EB65, Annex 21.</p> <p>The table provided in page no 15 of the PDD shows the no of projects within the applicable range and within the applicable geographical area, that deliver same output or capacity. All the relevant sources have also been provided. All the information has been collected from government sites for common practice analysis, all the references have been provided as foot note.</p> <p>The host country India has been considered as the applicable</p>	<p>1st Review:</p> <p>PP has revised the PDD and the common practice calculation is in line with the Demonstration and assessments of additionality" version 6. However latest version of Tool for the demonstration and assessment of additionality is version 6.1.0. Open</p> <p>2nd Review:</p> <p>PP has revised the PDD and the revision made is found appropriate. Hence CAR is closed.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>geographical area as mentioned in step 2 of the common practice analysis in the PDD. In step 3, only projects belonging to Ndiff has been identified.</p> <p>2nd Response: The PDD has been revised and attached with this submission.</p>	
<p>CAR 16: PP is requested to clarify:</p> <p>4. How solar project has been considered as zero</p> <p>5. PP is requested to provide the detailed list of thermal plants, hydro plants, biomass plants and wind projects that have been considered in Nall. It is mentioned in the PDD that out of 31 wind projects 27 projects are installed in different states. PP is requested to substantiate the same with supporting documents.</p> <p>6. It is mentioned that out of 4 projects in Maharashtra 3 are under CDM however, no details have been provided for the same</p>	<p>B.4.6.4, B.4.6.5, B.4.7.1</p>	<p>1. As per the latest information available in the public domain for commissioned solar projects in India, vide web link: http://www.renewablemarketsindia.com/attachments/4490_MNRE_List%20of%20MW-size-Grid-Solar-Power-Plants-in-India.pdf, which establish that no project in the applicable range is yet not commissioned. So solar project has been considered as zero. The same justification has been incorporated in the revised PDD.</p> <p>2. The details references of thermal power plants, hydro plants, biomass plants and wind project has been revised and attached with this submission.</p> <p>2nd Response: The PDD has been revised and the source of data of wind power projects has been incorporated.</p> <p>3. The common practice calculations</p>	<p>1st Review: 1. The justification provided by the PP is found appropriate, hence accepted.</p> <p>1st Review: 2. PP has revised the PDD and the references for the thermal power plants, hydro plants, biomass plants and wind project has been included. However PP is requested to mention the source of data considered used for document submitted for the wind power projects. This part of CAR is open.</p> <p>2nd Review: PP has revised the PDD and found that PP has incorporated the source of data of wind power projects. Hence accepted.</p> <p>1st Review: 3. PP has revised the PDD and the</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>and sources for wind projects has been revised as per “Demonstration and assessments of additionality” version 6, in the revised PDD.</p> <p>2nd Response: The PDD has been revised and attached with this submission.</p>	<p>common practice calculation is in line with the Demonstration and assessments of additionality” version 6. However latest version of Tool for the demonstration and assessment of additionality is version 6.1.0. Open</p> <p>PP is also request to address point no. 2. Open</p> <p>2nd Review: PP has revised the PDD and the revision made is found appropriate and hence accepted.</p>
<p>CAR 17: It is not clear from the PDD and the investment analysis worksheet how the PLF is considered is in line with the “Guidelines for the reporting and validation of plant load factors” version 01 annex 11 of EB 48 dated 17/07/ 2009. The PDD is not transparent whether, OM is calculated as per ex-ante option or ex-post option. The calculation approach of simple OM is not in line with the tool. The formula of OM calculation presented in the PDD is not applied in the emission reduction worksheet. For the build margin (BM) calculation, the formula presented in the PDD is not applied in the emission reduction worksheet. The combined margin emission factor calculation worksheet is not in line with the CEA database version 07.</p>	<p>B.5.1.2, B.5.1.3, B.5.4.1, B.5.4.2, B.5.4.3, B.5.4.4</p>	<p>Please refer to the response to CAR 13, point 2 & 8.</p> <p>For calculation of simple OM, equation (7) of EB 63, Annex 19 has been quoted. However the value of Simple OM has been taken from the Central Electricity Authority (CEA), Government of India published “Baseline Carbon Dioxide Emission Database Version 7.0” which provides build margin and operating margin emission factors for Indian Power sector, calculated based on “tool to calculate emission factor for an electricity system”.</p> <p>The same applies for the build margin (BM) calculation also as it also has been taken from the same</p>	<p>1st Review: The justification provided by PP is found appropriate and hence acceptable. CAR 17 is closed.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>data base published by CEA, Government of India.</p> <p>Hence the formula has not been applied directly in the emission reduction work sheet.</p>	
<p>CAR 18:</p> <p>The following parameters are to be monitored as per the PDD:</p> <p>EG_{facility,y} is the net electricity generation supplied by the project plant to the grid in a year: However, the description of this parameter is not in line with the methodology. Further, the monitoring and measurement procedures are not transparent in the PDD. Monitoring plan is not described correctly in the PDD. Calibration frequency is stated as once in 5 years as per IEGC 2011. It is not clear what calibration does this refer to and for which meter. Similarly, monitoring and measurement procedures of EG_{import,y} and EG_{export,y} needs further clarity. In addition, accuracy class of energy meters is not mentioned in the PDD. The monitoring plan does not include how the data uncertainty shall be addressed and QA/QC procedures transparently. Further PP is requested to provide the supporting evidences of calibration frequency as per the manufacturer specifications.</p>	<p>B.6.2.2, B.6.2.3, B.6.3.1, B.6.3.2</p>	<p>The required corrections have been made in the PDD. The description of EG_{facility,y} has been revised as mentioned in the methodology.</p> <p>The monitoring measurement procedure of the parameters has also been revised.</p> <p>The reference to the calibration frequency has been revised in the PDD.</p> <p>The monitoring and measurement procedures of EG_{import,y} and EG_{export,y} has also been revised.</p> <p>Accuracy class of the meter has been incorporated.</p> <p>The QA/QC procedure details out how the data uncertainty will be addressed.</p> <p>In India, all the interconnection meter is either with ownership of CTU or STU as per the attached CEA publication in Gazette of India, dated, 17th March 2006; and all the interconnection meters has to comply with the national regulation on calibration, which has been referred.</p>	<p>1st Review:</p> <p>The PP has revised the PDD and found the revision made is in line with the requirements and appropriate.</p> <p>The validation team has confirmed that all the interconnection meters have to comply with the national regulations on calibration. Hence accepted.</p> <p>CAR 18 is closed.</p>
<p>CAR 19:</p> <p>As per PDD the operation and maintenance of the project activity will be done by ReGen Powertech India Pvt. Ltd. However the technology provider is Gamesa wind turbines Pvt. Ltd. and as per the term sheet signed</p>	<p>B.6.2.5</p>	<p>The typographical mistake has been rectified in the revised PDD.</p>	<p>1st Review:</p> <p>The PP has corrected the mistake in the PDD and hence accepted. CAR 19 is closed.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
between Gamesa wind turbines Pvt. Ltd. states that they will be providing comprehensive O&M of the project. PP is requested to clarify the same.			
<p>CAR 20:</p> <p>PP is requested to make the reference of EIA transparently in the PDD and transparently explain in the PDD the environmental analysis carried out for the project activity as required by the paragraph 63 of CDM project standard.</p>	D.1.1	<p>As per the Schedule 1 of the EIA notification dated 1/12/2009 (http://moef.nic.in/downloads/rules-and-regulations/3067.pdf), given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986, the proposed Project activity does not fall under the list of activities requiring EIA as the environmental impacts for such project are not considered as significant by the host Party or Project Proponent.</p> <p>Also the project being harnessing environmentally biennial wind power through well establish technological option which has no adverse impacts on the local as well as global environment and help in mitigating anthropogenic climate change, environmental impacts for such project are not considered as significant by the Host Party or Project Proponent.</p> <p>Which is also in line with the paragraph 64 of the CDM Project Standard.</p>	<p>1st Review:</p> <p>As per The Ministry of Environment & Forest (MoEF), Government of India, vide Notification vide S.O. 1533(E) dated 14/09/2006 and No. SO. 3067 dated 1st November 2009, the present project activity does not require any EIA to be conducted, as there are no significant environmental impacts from wind energy project. Hence accepted. CAR 20 is closed.</p>
<p>CAR 21:</p> <p>Monitoring of sustainable development indicators/ environmental impacts are not warranted by legislation in the host country.</p>	D.1.4	<p>The same has been incorporated in the Annexure 2 of the PDD.</p> <p>The same has been incorporated in</p>	<p>1st Review:</p> <p>The details are not provided in the mentioned section of the PDD. CAR 21 is open.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
However, as per the host country approval procedures the project proponent should commit a certain percentage of the CERs revenue every year (subject to a minimum of 2%) for sustainable development including society/community development and accordingly make monitorable action plan for the same and include in the PDD. The same is not concluded in the PDD.		the revised PDD.	2 nd Review: PP has revised the PDD and found that PP has incorporated the details of CER sharing plan in the Annexure 2 of the PDD. Hence accepted. CAR 21 is closed.
<p>CL 1: PP is requested to submit the following documents:</p> <ol style="list-style-type: none"> 1. Approval from state nodal agency for setting up the wind power project. 2. Land approval/lease agreement executed for the project location 3. Power Purchase Agreement executed for the project activity. 4. Commissioning certificates of WTGs as and when commissioned. 5. Copy of Final Agreement with Gamesa Wind Turbines Private Limited. 6. Copy of Purchase Order Placed. 	A.2.1	<ol style="list-style-type: none"> 1. The approval from state nodal agency is on the process and may be available by 31st October 2012. <p>2nd Response: The approval from state nodal agency (MEDA) has been attached along with the submission.</p> <ol style="list-style-type: none"> 2. The land lease agreement is under process and will be available by 31st October 2012 <p>2nd Response: The land documents duly notarized in National CDM Authority provided format, has been attached along with this submission.</p> <ol style="list-style-type: none"> 3. The project has not yet signed any PPA 4. The commissioning has been planned in 31st December 2012. The commissioning certificates will be provided post commissioning of the 	<p>1st Review: The validation team has confirmed during the site visit that the project activity is in its initial stage. However the closure of the CL 1 is subjected to the submission of approval from state nodal agency and land lease agreement. Open.</p> <p>2nd Review: PP has submitted the documents and the found appropriate. Hence accepted. CL 1 is closed.</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>project.</p> <p>5. The term sheet as executed between the PP and Gamesha Wind Turbines Private Limited has already been provided to the DOE.</p> <p>6. Purchase order is yet to be executed.</p>	
<p>CL 2:</p> <p>As per the PDD, the PP is M/s ReNew Wind Energy (Jath) Private Limited; whereas the validation agreement is executed by M/s ReNew Wind Power Private Limited. Further, all agreements (WTG procurement, erection & commissioning etc.) related to project activity were executed by M/s ReNew Wind Power Private Limited. Hence, PP is requested to clarify with documentary evidence the relation between M/s ReNew Wind Power Private Limited and M/s ReNew Wind Energy (Jath) Private Limited. Further it is noted that all the orders like Purchase orders etc are not issued by the PP. PP is requested to explain the same.</p>	A.3.8	<p>M/s ReNew Wind Energy (Jath) Private Limited is a SPV of M/s ReNew Wind Power Private Limited, who holds decisive share of equity in the company. So during the initial phase of the operation all the decision and related expenditure has been considered at M/s ReNew Wind Power Private Limited so they have executed the term sheet with the technology supplier.</p> <p>2nd Response:</p> <p>The Memorandum of Association has been attached in annexure with this submission.</p>	<p>1st Review:</p> <p>The basis for the same has not been received. Kindly refer to Point 4 of CAR 13. Open.</p> <p>2nd Review:</p> <p>PP has submitted the documents and the found appropriate. Hence accepted. CL 2 is closed.</p>
<p>CL 3:</p> <p>PP is requested to provide documentary evidence for the source of funding of the proposed project activity.</p>	A.6.1, A.6.2	PP has yet not applied for the debt financing of the project.	<p>1st Review:</p> <p>The validation has confirmed that the PP has yet not applied for the debt financing. However PP has performed sensitivity analysis on the percentage of debt share. Hence accepted. CL 3 is closed.</p>
<p>CL 4:</p> <p>As per section C.1.1 of the PDD, the start date of the project activity is 03/05/2012 which is the date of signing the term sheet between the project proponent and</p>	B.4.3.1, B.4.4.6, B.4.4.7, B.4.7.1	Please find attached the CA certificate. As per the same the first payment has been incurred on 23/05/2012, which is in line of Glossary of CDM Term, version 6,	<p>1st Review:</p> <p>PP has revised the start date of the project activity, i.e. the date on which first payment is made to the technology provider. PP has</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
technology supplier (M/s Gamesa Wind Turbines Private Limited) for supplying 25 numbers of G97/2 MW WTGs and 29 numbers G58/0.85 MW WTGs. The validation team has cross checked the copy of the agreement and found that the term sheet clause no. 11 (payment terms) says that the advance payment shall be payable upon the signing of the project contract. Therefore PP has to justify the suitability of choosing start date as per Glossary of CDM terms" version 06 dated 02/03/2012.		dated 02/03/2012. So accordingly the start date has been revised.	submitted CA certificate as evidence for the same. The validation team has verified the document and found appropriate; and found the start date is in accordance with the glossary of CDM terms. Hence CL 4 is closed.
<p>CL 05:</p> <ol style="list-style-type: none"> 1. PP is requested to clarify why in the calculation of book depreciation, asset cost has been fully written off. Also provide the depreciation policy of the company. 2. PP has to clarify that; why book and tax depreciation has been calculated only for G58 type of WTG? 3. PP is requested to clarify the basis for not considering development cost, labour charges and service tax on these items for depreciation calculation. 4. The source for salvage value of the project activity is given as 'page 60 of MERC tariff order'. However, the same is not found in the tariff order. PP is requested to provide the source of salvage value. Further, PP is requested to clarify the basis for taking salvage value of land at 10% when no depreciation is changed for land. 5. PP is requested to provide the loan sanction letter and current status of loan. 	<p>B.4.7.1, B.5.4.2, B.5.4.3, B.5.4.4, B.4.4.10</p>	<p>1. The same has been revised in the financial model and revised PDD. The same has been incorporated in the revised PDD.</p> <p>2. The financial model and PDD has been revised accordingly.</p> <p>3. The depreciation calculation has been revised with consideration of project costs except the cost of land.</p> <p>2nd Response: The land cost has been sourced from the term sheet as agreed between PP and the supplier. The land cost has been termed as development cost.</p> <p>4. The source of the salvage value has been revised in the revised IRR model and revised PDD. The land being leased the same has not been included in the depreciation as well as salvage value computation. Please find attached the revised IRR</p>	<p>1st Review:</p> <p>1. The validation team has ensured that depreciation has been written off up to 90% of the project cost. However 5.28% is to be calculated on 100% of cost and not on 90% of cost. Open</p> <p>2nd Review:</p> <p>PP has revised the PDD and the revision made is found appropriate and hence accepted.</p> <p>1st Review:</p> <p>2. It has been confirmed that the depreciation has been calculated for both the WTG models and hence, accepted.</p> <p>1st Review:</p> <p>3. PP is requested to provide the basis for considering land cost at INR 147.33 million. Open</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
<p>6. PP is requested to clarify the basis for considering quarterly repayments in the interest calculation.</p> <p>7. PP is requested to clarify the basis for considering margin money at 25% of the working capital. Further PP is doesn't provide the details of margin money in the PDD.</p> <p>8. PP is requested to mention the assessment year for which the tax rates have been considered.</p> <p>9. PP is requested to provide the source for CER price and exchange rate considered.</p>		<p>model.</p> <p>2nd Response: The salvage value has been sourced from Section 3.7 of MERC Tariff Order (http://www.mercindia.org.in/pdf/Order%2058%2042/Order_39_of_2011.pdf), the same has been incorporated in financial model and PDD</p> <p>5. The project has not yet got any loan sanctioned.</p> <p>6. As per general practice in the market and as experienced by ReNew Wind Power Private Limited in its past projects, the quarterly repayment schedule has been considered in interest calculation.</p> <p>7. The basis for margin money @ 25% of the working capital has been considered on the basis of Tandon Committee report (http://www.banknetindia.com/banknet/matlend.htm).</p> <p>2nd Response: Please refer to the Second method of lending as applicable for this project. The same has been incorporated in the revised financial model.</p> <p>8. The tax rates have been considered for the assessment year 2013-14.</p> <p>2nd Response:</p>	<p>2nd Review: The justification provided by PP is found appropriate. Hence accepted.</p> <p>1st Review: 4. The source for salvage value has not been updated in the revised PDD and IRR calculation sheet. Open.</p> <p>2nd Review: PP has revised the PDD and financial model; and the revision made is found appropriate. Hence accepted.</p> <p>1st Review: 5. The validation has confirmed that the PP has yet not applied for the debt financing. However PP has performed sensitivity analysis on the percentage of debt share. Hence accepted.</p> <p>1st Review: 6. As quarterly repayments are a general market practice, the same has been accepted.</p> <p>1st Review: 7. Verified the web link provided. Kindly include the same in the PDD and the IRR sheet and also mention</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		<p>The project decision making happened on 23rd March, when the Union Budget for the next financial year was available (Presented by Finance Minister on 16th March; http://en.wikipedia.org/wiki/Union_budget_of_India), and PP has taken the same into consideration.</p> <p>9. The source of CER price and exchange rate are purely assumption of the PP, as these parameters are not required as UNFCCC modalities for simplification has been removed.</p>	<p>clearly that out of the 3 methods mentioned, which one has been considered. Open</p> <p>2nd Review: PP has revised the PDD and financial model; and the revision made is found appropriate. Hence accepted..</p> <p>1st Review: 8. PP is requested explain how the tax rate for AY 2013-14 was available at the time of decision making and kindly include the A.Y. details in the IRR sheet and PDD. Also, kindly clarify the basis for MAT working included in the revised IRR calculation sheet. Open.</p> <p>2nd Review: The justification provided by PP is found appropriate and hence accepted.</p> <p>1st Review: 9. Since the CER revenue details are not required, the removal of the same has been accepted.</p> <p>CL 05 is closed.</p>
CL 06: PP is requested to explain the following:	B.4.6.4	<p>1. The section has been revised in the revised PDD.</p> <p>2. The reference has been revised to</p>	<p>1st Review: PP has revised the PDD and the revision is found appropriate and</p>

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
<p>4. As India has been considered as applicable geographical area, it is not clear how projects outside Maharashtra have been excluded.</p> <p>5. The reason for considering CEA database version 6 instead of version 7.</p> <p>6. The source (web-link of footnote 18) provided for biomass based power plants are not correct and; the web-link for footnote 17 is not working.</p>		<p>CEA database Version 7.</p> <p>3. The source being recently updated by MNRE, create the discrepancy. The source has been revised and incorporated in the revised PDD.</p>	acceptable. CL 06 is closed.
<p>CL 7:</p> <p>PP is requested to provide the minutes of stakeholders meeting as well as proof of invitation sent to the stakeholders.</p>	E.1.1, E.1.2, E.1.3, E.1.4	Please find attached the same along with the submission.	<p>1st Review:</p> <p>PP has submitted the minutes of the stakeholders meeting as well as proof of invitation. The same found appropriated and hence accepted. CL 7 is closed.</p>

TABLE 4 FORWARD ACTION REQUEST

Forward action request	Reference to Table 2	Response by project participants	Validation Conclusion
FAR 1			



RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Reghu Raghavan Nair Kumar

è qualificato come¹:
is qualified as:

CDM-TEC, CDM-VAL, CDM-VER, CDM-TL, CDM-FIN-EXP
VCS-TEC, VCS-VAL, VCS-VER, VCS-TL
GS-TEC, GS-VAL, GS-VER, GS-TL
SCS-TEC, SCS-VAL, SCS-VER, SCS-TL
JI-TEC

per le seguenti aree tecniche:
for the following technical areas:

1.1, 1.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.1, 6.1, 11.1, 13.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation from fossil fuel and biomass including thermal electricity from solar	1
1.2	Energy generation from renewable energy sources	1
4.3	Iron and steel	4
4.4	Refinery	4
4.5	Rubber and Plastics	4
4.6	Electrical/electro technical products	4
4.7	Coke/coal/char-coal production	4
4.8	Pulp and paper production	4
5.1	Chemical process industries	5
6.1	Construction	6
11.1	Chemical process industries	11
13.1	Waste Handling and Disposal	13

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	31-08-2009	-
6	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS: Verified Carbon Standard:
GS: Gold Standard
SCS: SocialCarbon Standard
JI: Joint Implementation

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports



RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Mathew Vijay

è qualificato come¹:
is qualified as:

CDM-TEC, VCS-TEC, JI-TEC, GS-TEC, SCS-TEC,
CDM-VAL, VCS-VAL

per le seguenti aree tecniche:
for the following technical areas:

1.2

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Energy generation from renewable Energy sources	1

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	02/08/2012	-

Il Resp. QPT
Head of QPT

¹ Legend:

VAL: Validator
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RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Champok Buragohain

è qualificato come¹:
is qualified as:

CDM/VCS/GS/JI/SCS-TEC, CDM-VAL, CDM-TL

per le seguenti aree tecniche:
for the following technical areas:

1.2, 2.1, 13.2, 15.2

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Energy generation from renewable energy sources	1
2.1	Electricity distribution	2
13.2	Animal Waste Management	13
15.2	Animal Waste Management	15

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19-01-2011	-
5	13-03-2013	Extension to qualification as TL

Il Resp. QPT
Head of QPT

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

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RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Karthika Varma

è qualificato come¹:
is qualified as:

CDM-FIN-EXP

per le seguenti aree tecniche:
for the following technical areas:

-

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
-	-	-

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	20-10-2010	-
2	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

¹ Legend:

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TL: Team Leader
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DET: Determiner

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RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Rita Valoroso

è qualificato come1:
is qualified as:

CDM-TEC, CDM-VAL, CDM-VER, CDM-TL, CDM-FIN-EXP
VCS-TEC, VCS-VAL, VCS-VER, VCS-TL
GS-TEC, GS-VAL, GS-VER, GS-TL
SCS-TEC, SCS-VAL, SCS-VER, SCS-TL
JI-TEC

per le seguenti aree tecniche:
for the following technical areas:

1.2, 13.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Energy generation from renewable Energy sources	1
13.1	Waste Handling and Disposal	13

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	18-01-10	-
6	13-07-12	Annual revision

Il Resp. QPT
Head of QPT

¹ Legend:

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TL: Team Leader
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RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Felice Alfieri

è qualificato come¹:
is qualified as:

CDM/VCS/GS/JI/SCS-TEC, CDM/VCS/GS-VAL

per le seguenti aree tecniche:
for the following technical areas:

13.2, 15.2

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
13.2	Animal Waste Management	13
15.2	Animal Waste Management	15

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	13-09-2010	-
5	08-01-2013	Updating qualification as CDM/VCS/GS validator

Il Resp. QPT
Head of QPT

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
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