VALIDATION REPORT

Final

"Clean Energy Project in the State of Tamil Nadu"
in
India

Report N°2011-MU-41-MD

Revision N°2.0

VALIDATION REPORT

Project Title:	Country:	Estimated CERs (tCO2e):
"Clean Energy Project in the State of Tamil Nadu"	India	27,546 annual average
Client: Vish Wind Infrastructure LLP	**Client contact:** Mr.Yogesh Mehra	
Report No.: 2011-MU-41-MD	**Revision:** 2.0	**Date of this report:** 05/12/2012
Approved by: Roberto Cavanna		**Date of approval:** 06/12/2012

Methodology

Number:	Version:	Title:	Scale	SS(s):
ACM 0002	13.0.0 of 11/05/2012	"Consolidated baseline methodology for grid-connected electricity generation from renewable sources".	Large	1

RINA Services S.p.A. (RINA), commissioned by Vish Wind Infrastructure LLP, has performed the validation of the project activity "Clean Energy Project in the State of Tamil Nadu" in India, with regard to the relevant requirements for CDM activities.

In conclusion, it is RINA's opinion that the project activity "Clean Energy Project in the State of Tamil Nadu", in "India", as described in the PDD version 4.0 of 09/08/2012, meets all relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology "ACM 0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of 11/05/2012.Hence RINA requests the registration of the project as a CDM project activity.

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Abbreviations

APERC	Andhra Pradesh Electricity Regulatory Commission
BE	Baseline Emissions
CAR	Corrective Action Request
CEA	Central Electricity Authority
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH_4	Methane
CL	Clarification Request
CO_2	Carbon dioxide
CO_2e	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
GERC	Gujarat Electricity Regulatory Commission
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
JMR	Joint Meter Reading
KERC	Karnataka Electricity Regulatory Commission
LoA	Letter of Approval
MERC	Maharashtra Electricity Regulatory Commission
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PLF	Plant Load Factor
PP(s)	Project Participant(s)
PPA	Power Purchase Agreement
Ref.	Document Reference
RERC	Rajasthan Electricity Regulatory Commission
RINA	RINA Services Spa
SS(s)	Sectoral Scope(s)
TANGEDCO	Tamilnadu Generation and Distribution Corporation Limited

TNEB	TamilNadu Electricity Board
TNERC	TamilNadu Electricity Regulatory Commission
TWIC	True Wind International Certification
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Voluntary Carbon Units
VVM	Validation and Verification Manual
WEC	Wind Energy ConvertersWhole Price Index
WPI	Wind Turbine Generators
WTG	

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1 INTRODUCTION

Vish Wind Infrastructure LLP has commissioned RINA to carry out the validation of the “Clean Energy Project in the State of Tamil Nadu” 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 Manual, 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 4.0 of 09/08/2012,version 3.0 of 27/07/2012, version 2.0 of 04/07/2012 and version 1.0 of 13/01/2012/01/, 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, Emission reduction sheet named, “calculation sheet xls”, version 01 submitted on 21/12/2011, “calculation sheet xls.xlsx” submitted on 28/06/2012, “Emission Reduction Calculations.xls” submitted on 27/07/2012 and “Emission Reduction Calculations.xls” submitted on 09/08/2012/02/, Benchmark sheets named, “Benchamark”,submitted on 21/12/2011/03/,“Benchamark.xlsx“ submitted on 28/06/2012/03/,IRR sheets named, “Investment Analysisi”, submitted on 21/12/2011, “Investment Analysis_Webhosting_6 June 2012.xlsx” submitted on 28/06/2012, “Investment Analysis_Webhosting_27 Jul 2012.xlsx” submitted on 27/07/2012 and ”Investment Analysis_Webhosting_01 Aug 2012.xlsx” submitted on 09/08/2012/03/,Common practice

analysis sheet named, “TN common practise 2011.xls” submitted on 28/06/2012/62/, “TN common practise 2011.xls” submitted on 27/07/2012/62/ “TN common practise 2011_9 Aug 2012.xls” submitted on 09/08/2012“ /62/,“Common Pracrice_Wind of all states” submitted on 26/09/2012, and ” Common Practice Sheet of different technology” submitted on 26/09/2012 were assessed as part of the validation. The following table lists the documentation that was reviewed during the validation.

/01/	Vish Wind Infrastructure LLP: CDM-PDD for project activity “Clean Energy Project in the State of Tamil Nadu” in India, version 1.0 of 13/01/2012 CDM-PDD for project activity “Clean Energy Project in the State of Tamil Nadu” in India, version 2.0 of 04/07/2012. CDM-PDD for project activity “Clean Energy Project in the State of Tamil Nadu” in India, version 3.0 of 27/07/2012 CDM-PDD for project activity “Clean Energy Project in the State of Tamil Nadu” in India, version 4.0 of 09/08/2012.
/02/	Vish Wind Infrastructure LLP: a. Excel sheet for Emission reduction calculation named “calculation sheet xls”, version 01 submitted on 21/12/2011. b. Excel sheet for Emission reduction calculation named “calculation sheet xls.xlsx” submitted on 28/06/2012. c.Excel sheet for Emission reduction calculation named “Emission Reduction Calculations.xls” submitted on 27/07/2012. d.Excel sheet for Emission reduction calculation named “Emission Reduction Calculations.xls” submitted on 09/08/2012.
/03/	Vish Wind Infrastructure LLP: Excel sheet named “Investment Analysisi”, submitted on 21/12/2011. Excel sheet named “Benchamark”,submitted on 21/12/2011. Excel sheet for IRR named “Investment Analysis_Webhosting_6 June 2012.xlsx” submitted on 28/06/2012. Excel sheet for benchmark named “Benchamark.xlsx” submitted on 28/06/2012. Excel sheet for IRR calculation named “Investment Analysis_Webhosting_27 Jul 2012.xlsx” submitted on 27/07/2012. Excel sheet for IRR calculation named “Investment Analysis_Webhosting_01 Aug 2012.xlsx” submitted on 09/08/2012.
/04/	CDM Executive Board: Validation and Verification Manual, version 01.2 of 30/07/2010
/05/	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.
/06/	CDM Executive Board; “Guidelines on the demonstration and assessment of prior consideration of the CDM” version 04 dated 15/07/2011, Annex 13, EB 62
/07/	CDM Executive Board; CDM Glossary of terms version 05 dated 19/08/2009
/08/	CDM Executive Board; Prior consideration of the CDM form (F-CDM-Prior consideration), Annex 62, EB 48
/09/	CDM Executive Board; Prior consideration of CDM for the proposed project activity at UNFCCC website (http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html). Language : English , retrieved on 23/03/2012.
/10/	CDM Executive Board; “Tool to calculate the emission factor for an electricity system” version 02.2.1 dated 29/09/2011, Annex 19, EB 63
/11/	Government of India: Reference link for sustainable indicators stipulated by the host country (India).http://www.cdmindia.in/approval_process.php , Language: English ,retrieved on 01/03/2012
/12/	CDM Executive Board: Guidelines on assessment of de-bundling for SSC project activities” version 03, Annex 13 of EB 54 dated 28/05/2010
/13/	Reference link for True Wind International certification India’s official site (third party) http://twic.in/index.html Language : English , Retrieved on 23/03/2012

/14/	Central Electricity Authority (CEA), Government of India: Reference Link for the CEA data base. http://cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm Language: English, retrieved on 05/03/2012.
/15/	UNFCCC website: Reference link for the status of ratification of the host country. http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php Language :English, retrieved on 05/03/2012.
/16/	UNFCCC website: Reference link for the DNA of the host country. http://cdm.unfccc.int/DNA/index.html?click=dna_forum language :English, retrieved on 08/12/2011.
/17/	CDM Executive Board: The modalities and procedures for the CDM, FCCC/KP/CMP/2005/8/Add.1,dated 30/03/2006
/18/	CDM Executive Board: Guidance on the assessment of investment analysis, version 5, dated 15/07/2011, Annex 5, EB 62.
/19/	UNFCCC: Reference link for the project activity, reference no.4846 http://cdm.unfccc.int/Projects/DB/BVQI1306158095.18/view Language: English, Retrieved on 29/12/2011.
/20/	CDM Executive Board: Guidelines for completing the Project Design Document (CDM-PDD) and the proposed new baseline and monitoring methodologies(CDM-NM) , Version 07, dated 02/08/2008, Annex 12, EB 41.
/21/	CDM Executive Board: CDM-PDD – Project Design Document form, version 03, dated 28/07/2006.
/22/	CDM Executive Board: Tool for demonstration and assessment of additionality, version 06.0.0, dated 25/11/2011, Annex 21, EB 65.
/23/	CDM Executive Board: Guidelines for the reporting and validation of Plant load factors, version 01, dated 17/07/2009, Annex 11, EB48.
/24/	CDM Executive Board: Guidelines on common practice, version 01.0 ,dated 29/09/2011,Annex 12 ,EB63
/25/	Tamil Nadu generation &Distribution Corporation Limited : 1. Commissioning certificate for WEG, HTSC No.3957, dated 20/10/2011. 2. Commissioning certificate for WEG, HTSC No.3919, dated 29/09/2011. 3. Commissioning certificate for WEG, HTSC No.3947, dated 30/09/2011. 4. Commissioning certificate for WEG, HTSC No.3914, dated 29/09/2011. 5. Commissioning certificate for WEG, HTSC No.3915, dated 29/09/2011. 6. Commissioning certificate for WEG, HTSC No.3916, dated 29/09/2011. 7. Commissioning certificate for WEG, HTSC No.3917, dated 29/09/2011. 8. Commissioning certificate for WEG, HTSC No.3918, dated 29/09/2011. 9. Commissioning certificate for WEG, HTSC No.3949, dated 30/09/2011. 10. Commissioning certificate for WEG, HTSC No.3986,dated 10/01/2012 11. Commissioning certificate for WEG, HTSC No.3955, dated 07/10/2011. 12. Commissioning certificate for WEG, HTSC No.3948, dated 30/09/2011. 13. Commissioning certificate for WEG, HTSC No.3959, dated 21/10/2011. 14. Commissioning certificate for WEG, HTSC No.3954, dated 07/10/2011. 15. Commissioning certificate for WEG, HTSC No.3981, dated 28/12/2011. 16. Commissioning certificate for WEG, HTSC No.3920, dated 29/09/2011. 17. Commissioning certificate for WEG, HTSC No.3921, dated 29/09/2011. 18. Commissioning certificate for WEG, HTSC No.3999, dated 31/01/2012.
/26/	Vish Wind Infrastructure LLP:- 1. Land deed document executed between the Mr.C.C.Vishwanathan Nayar and Vish Wind Infrastructure LLP, document no.3064, dated 12/09/2011. 2. Land deed document executed between the Mr.M.Balasubramanian and Vish Wind Infrastructure LLP, document no.3065, dated 12/09/2011. 3. Land deed document executed between the Mr.N.Viswanathan and Vish Wind Infrastructure LLP, document no.6040, dated 12/09/2011. 4. Land deed document executed between the Mr.V.Sajilal and Vish Wind Infrastructure LLP, document no.7720, dated 13/09/2011. 5. Land deed document executed between the Mr.G.Xavier Selvaraja and Vish Wind Infrastructure LLP, document no.6144, dated 13/09/2011. 6. Land deed document executed between the Mr.V.Sajilal and Vish Wind Infrastructure LLP,

	document no.2271, dated 13/07/2011. 7. Land deed document executed between the Mr.M.Senthilnathan and Vish Wind Infrastructure LLP, document no.4460, dated 08/07/2011. 8. Land deed document executed between the Mr.K.S.Sutheeshkumar and Vish Wind Infrastructure LLP, document no.5425, dated 08/07/2011. 9. Land deed document executed between the Mr.M.Balasubramanian and Vish Wind Infrastructure LLP, document no.5431, dated 08/07/2011. 10. Land deed document executed between the Mr.M.Balasubramanian and Vish Wind Infrastructure LLP, document no.5432, dated 08/07/2011. 11. Land deed document executed between the Mr.M.Senthilnathan and Vish Wind Infrastructure LLP, document no.5429, dated 08/07/2011. 12. Land deed document executed between the Mr.K.S.Sutheeshkumar and Vish Wind Infrastructure LLP, document no.5427, dated 08/07/2011. 13. Land deed document executed between the Mr.K.S.Sutheeshkumar and Vish Wind Infrastructure LLP, document no.5426, dated 08/07/2011. 14. Land deed document executed between the Mr.M.Senthilnathan and Vish Wind Infrastructure LLP, document no.5430, dated 08/07/2011. 15. Land deed document executed between the Mr.M.Senthilnathan and Vish Wind Infrastructure LLP, document no.5428, dated 08/07/2011. 16. Land deed document executed between the Mr.M.Senthilnathan and Vish Wind Infrastructure LL, document no.4461, dated 08/07/2011. 17. Land deed document executed between the Mr.N.Esakkiappan and Vish Wind Infrastructure LLP, document no.4459, dated 08/07/2011. 18. Land deed document executed between the Mr.M.Ponnusamy and Vish Wind Infrastructure LLP, document no. 4462, dated 08/07/2011.
/27/	Tamil Nadu generation &distribution corporation limited : 1.Approval letter for the installation of 800kW WEG ,Lr.No:CE/NCES/EE/WPP/A2/F.M/s Vish Wind Infrastructure LLP/WEG.No:REC 135(T)/R.4046/D.365/11.,dated 21/09/2011 2.Approval letter for the installation of 800kW WEG ,Lr.no:CE/NCES/EE/WPP/A2/F.M/s Vish Wind Infrastructure LLP/WEG.No:REC 159(T)/R.4217/D.371/11,dated 21/09/2011 3. Approval letter for the installation of 800kW WEG ,Lr.No:CE/NCES/EE/WPP/A2/F.M/s.Vish Wind Infrastructure LLP/WEG .No:REC 148(T)/R.4041/D.393/11,dated 22/09/2011 4, Approval letter for the installation of 800kW WEG ,Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 146(T)/R.4039/D.391/11,dated 22/09/2011 5, Approval letter for the installation of 800kW WEG , ,Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 160(T)/R.4049/D.367/11,dated 21/09/2011 6. Approval letter for the installation of 800kW WEG , ,Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 151(T)/R.4082/D.395/11,dated 22/09/2011. 7. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 130(T)/R.1258/D.389/11,dated 22/09/2011. 8. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 127(T)/R.3424/D.369/11,dated 21/09/2011. 9. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 172(T)/R.4217/D.492/11,dated 10/10/2011. 10, Approval letter for the installation 2no's of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 152(T)/R.4089/D.357/11,dated 19/09/2011. 11. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 150(T)/R.4088/D.431/11,dated 26/09/2011. 12. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 170(T)/R.3217/D.475/11,dated 28/09/2011. 13. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 168(T)/R.4588/D.433/11,dated 26/09/2011. 14, Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 156(T)/R.4178/D.435/11,dated 26/09/2011. 15. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind Infrastructure LLP/WEG.No:REC 167(T)/R.4138/D.429/11,dated 26/09/2011. 16. Approval letter for the installation of 800kW WEG , Lr.No:CE/NCES/EE/WPP/A2/F.M/s vish Wind

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/28/	Vish Wind Infrastructure LLP: Board Resolution by Vish Wind Infrastructure LLP, dated 20/05/2011.
/29/	Vish Wind Infrastructure LLP: Authorisation to manage CDM activities and transaction of Certified Emission Reduction units, dated 15/07/2011.
/30/	Enercon (India) limited: Offer for managing CER for the proposed project activity, dated 12/07/2011.
/31/	Vish Wind Infrastructure LLP: Certificate of registration on Conversion of Vish Wind Infrastructure Limited to Vish Wind Infrastructure LLP, dated 09/07/2010.
/32/	True Wind International certification India: Report on determination of Plant Load Factor (PLF) for WEG's, dated 26/08/2011.
/33/	Vish Wind Infrastructure LLP: Request for host country approval for the CDM project activity, dated 14/09/2011.
/34/	Vish Wind Infrastructure LLP: Purchase order for WEC's placed to Enercon (India) limited, ref: VWILLP/EIL/11-12/05, dated 30/06/2011.
/35/	Vish Wind Infrastructure LLP: Minutes of the Meeting of the Stakeholders meeting dated 21/10/2011.
/36/	Vish Wind Infrastructure LLP: Intimation mail to DNA of the host country, dated 15/09/2011. Vish Wind Infrastructure LLP: Intimation mail to UNFCCC, dated 15/09/2011.
/37/	Vish Wind Infrastructure LLP: Invitation letter for stakeholders meeting published in the local newspaper, dated 04/10/2011. Photo copies of stakeholders meeting, submitted on 20/12/2011.
/38/	Vish Wind Infrastructure LLP: Prior consideration form submitted to the UNFCCC, dated 14/09/2011.
/39/	Vish Wind Infrastructure LLP: Profit sharing ratio document, submitted on 20/12/2011.
/40/	Enercon (India) Limited: Offer for 800kW, Enercon make WEG's, dated 05/05/2011.
/41/	Vish Wind Infrastructure LLP: Undertaking letter for no third party sale of electricity from the proposed project activity, dated 11/07/2010.
/42/	UNFCCC website: Reference link for the project activity under small scale http://cdm.unfccc.int/Projects/Validation/DB/E91HG3ZKE4A62PKQZC037HBJ1QCTP1/view.html Language: English, Retrieved on 23/03/2012.
/43/	UNFCCC website: Reference link for the project activity under large scale http://cdm.unfccc.int/Projects/Validation/DB/NM2H114FXJVZJU1VJ8XY0LVJA8641J/view.html Language :English, Retrieved on 23/03/2012
/44/	Ministry of Environment and Forests, Government of India : Reference link for EIA notification, http://www.moef.nic.in/legis/env_clr.htm Language :English, Retrieved on 23/03/2012
/45/	National CDM Authority, Ministry of Environment & Forests, (DNA of the Host country): Acknowledgement mail from DNA of the host country, dated 15/09/2011.
/46/	UNFCCC: Copy of acknowledgement mail for the receipt prior consideration of CDM from UNFCCC, dated 10/11/2011.
/47/	Vish Wind Infrastructure LLP : Undertaking letter for stakeholders meeting submitted to DNA of the host country, dated 05/10/2011.
/48/	National CDM Authority, Ministry of Environment & Forests, Government of India: Letter of Approval, reference no -4/2/2012-CCC, dated 02/02/2012.
/49/	Mehul Vora & Co, Chartered Accountants: CA certificate for the project cost for the project activity, membership no-114237, dated 01/06/2012.
/50/	Tamil Nadu Electricity Regulatory Commission (TNERC): Tariff order no-4 of 2011, dated 15/12/2011.
/51/	Enercon India limited: Brochure Manual for 800kW capacity WEC, model no –E53, 28/06/2012.
/52/	Consolidated Energy Consultants Limited, India : Directory Indian Wind Power-2011, submitted on 28/06/2012
/53/	Tamil Nadu Generation and Distribution Corporation Limited, Tirunelveli: i) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3957, dated 20/10/2011. ii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3919, dated 29/09/2011.

	iii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3947, dated 30/09/2011. iv) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3914, dated 29/09/2011. v) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3915, dated 29/09/2011. vi) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3916, dated 29/09/2011. vii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3917, dated 29/09/2011. viii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO for the HTSC no-3918, dated 29/09/2011. ix) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3949, dated 30/09/2011. x) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3986, dated 10/01/2012. xi) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3955, dated 07/10/2011. xii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3948, dated 30/09/2011. xiii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3959, dated 21/10/2011. xiv) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3954, dated 07/10/2011. xv) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3981, dated 28/12/2011. xvi) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3920, dated 29/09/2011. xvii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3921, dated 29/09/2011. xviii) Wind Energy purchase agreement executed between Vish Wind Infrastructure LLP and TANGEDCO, for the HTSC no-3999, dated 31/01/2012.
/54/	Vish Wind Infrastructure LLP: Scanned copy of local newspaper (Dhinathanthi) published on 04/10/2011 for inviting the stakeholders meeting conducted on 21/10/2011.
/55/	United India Insurance Co. Limited: Insurance quotation for the proposed project activity, Ref: VDO/UW/2011-2012, dated 14/09/2011.
/56/	Enercon India Limited: Life time certificate obtained from the supplier, submitted on 28/06/2012.
/57/	Enercon India Limited: Technical specification sheet obtained from the supplier, submitted on 28/06/2012.
/58/	Mehul Vora & Co, Chartered Accountants: CA certificate for the mode of financing, membership no-114237, dated 30/06/2012.
/59/	Vish Wind Infrastructure LLP: Copies of Joint meter Reports (Electricity generation statement) for the HTSC no's 3916& 3917 for the month of November -2011.
/60/	Enercon India Limited: Monthly generation report for the month of July-2012 for Vish Wind Infrastructure LLP submitted on 27/07/2012.
/61/	CDM Executive Board: "Guidelines for Assessing Compliance with the Calibration Frequency Requirements ", version 01, annex 60 of EB62, dated 12/02/2010.
/62/	Vish Wind Infrastructure LLP : Excel sheet for common practice analysis named "TN common practise 2011.xls" submitted on 28/06/2012. Excel sheet for common practice analysis named "TN common practise 2011.xls" submitted on 27/07/2012. Excel sheet for common practice analysis named "TN common practise 2011_9 Aug 2012.xls" submitted

	on 09/08/2012. Excel sheet for common practice analysis named “TN common practise 2011_9 Aug 2012.xls” , submitted on 31/08/2012. Excel sheet for common practice analysis named “Common Pracrice_Wind of all states” submitted on 26/09/2012. Excel sheet for common practice analysis named ” Common Practice Sheet of differenet technology” submitted on 26/09/2012.
/63/	Enercon(India) Limited : Reference link for cross the technology transfer and location of the enercon manufacturing units, http://www.enerconindia.net/ Language : English , Retrieved on 27/08/2012.
/64/	Government Of India : Reference link for Income Tax Act (Financial Year 2011-12) http://law.incometaxindia.gov.in/DIT/Income-tax-acts.aspx Language : English , Retrieved on 27/08/2012.
/65/	TamilNadu Electricity Regulatory Commission (TNERC) : Reference link for comprehensive tariff order on Wind Energy, order dated 20/03/2009. http://tnerc.tn.nic.in/orders/Tariff%20Order%202009/2012/T.R%20No.6%20of%202012%20dated%2031-07-2012-Wind.pdf Language: English , Retrieved on 27/08/2012.
/66/	Ministry Of Corporate Affairs, Government of India : Reference link for book depreciation rate http://www.mca.gov.in/Ministry/pdf/Companies_Act_1956_13jun2011.pdf Language: English, Retrieved on 27/08/2012.
/67/	Reserve Bank of India: Reference Link for WPI inflation rate taken for the calculation of benchmark. http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PREERE14020210.pdf Language: English, Retrieved on 27/08/2012.
/68/	Reference Links for Tariff Orders, Central Electricity Regulatory Commission : http://www.cercind.gov.in/ Language :English ,Retrieved on 27/08/2012
/69/	Reference Link for TNERC order http://tnerc.gov.in/ Language :English ,Retrieved on 27/08/2012
/70/	Reference Link for MERC order http://www.mercindia.org.in/ Language :English ,Retrieved on 27/08/2012
/71/	Reference Link for GERC order

	http://www.gercin.org/ Language :English ,Retrieved on 27/08/2012
/72/	Reference Link for RERC order http://www.rerc.rajasthan.gov.in/ Language :English ,Retrieved on 27/08/2012
/73/	Reference Link for KERC order http://www.kerc.org/ Language :English ,Retrieved on 27/08/2012
/74/	Reference Link for APERC order http://www.aperc.gov.in/ Language :English ,Retrieved on 27/08/2012
/75/	Reserve Bank Of India : Reference link for Measures of Core Inflation in India – An Empirical Evaluation, dated 10/10/2011. http://www.rbi.org.in/scripts/PublicationsView.aspx?id=13840 Language : English , Retrieved on 27/08/2012.
/76/	Dr. Aswath Damodaran: *"Corporate Finance Theory and Practice"* text book on financial management written by Dr. Aswath Damodaran of Stern School of Business, New York University.
/77/	Central Electricity Authority (CEA): Reference link for the regulations of metering in India . http://www.cea.nic.in/reports/regulation/meter_reg.pdf Language : English , Retrieved on 24/09/2012.
/78/	Reference Link for the similar project activities that deliver the same output/capacity within the applicable output range Central Electricity Authority (CEA) ,India : Thermal Projects :http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm (This is inline with the additionality tool. The data has been taken till the date of project start date. Hydro projects : http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm (This is inline with the additionality tool. The data has been taken till the date of project start date. Nuclear Projects:http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm (This is inline with the additionality tool. The data has been taken till the date of project start date. Language : English, Retrieved on 26/09/2012
/79/	Reference Link for the similar project activities that deliver the same output/capacity within the applicable output range Ministry of New and Renewable Energy ,India Solar Projects :: http://mnre.gov.in/file-manager/annual-report/2011-2012/EN/Chapter%206/chapter_6.htm Biomass projects : http://mnre.gov.in/file-manager/annual-report/2011-2012/EN/Chapter%205/chapter_5.htm,, Annual report-2011-12 of Ministry of New and Renewable energy, Government of India Language: English, Retrieved on 26/09/2012.
/80/	Reference Link for the similar project activities that deliver the same output/capacity within the applicable output range Energy Alternative India (EAI) , India :

	Geothermal /Tidal projects : http://www.eai.in/ref/ae/oce/oce.html & http://www.eai.in/ref/ae/geo/geo.html Language: English , Retrieved on 26/09/2012.

2.2 Follow-up actions

Initially the PDD/**42**/ for the proposed project activity was webhosted under small scale project activity (period from 19/11/2011 to 18/12/2011). However, during the validation process and site visit observation dated 27/12/2011 and 28/12/2011, it was noted that some of WEC's (Loc no-119,121,122) are developed from the same project proponent/19/, were located within 1 km of the project boundary of the proposed project activity. It was checked that these WECs are part of another small scale registered CDM project activity with reg. No. 4846 registered on 08/07/2011/19/. The capacities of the registered and proposed project activity are 8MW and 14.4MW, respectively which together would cross the capacity limit for small scale project activity as proposed by simplified modalities and procedures for small scale project activities/17/. Hence it was confirmed by the validation team that the proposed project activity is deemed to be the debundled component of large scale project activity as per the guidelines on assessment of de-bundling for SSC project activities/12.

In view of the above, PDD/**43**//**01**/ was re-webhosted under the large scale activity with the applicable requirements (period from 10/02/2012 to 10/03/2012) and thus, the validation team avoided the 2nd site visit.

On 27/12/2011 and 28/12/2011, RINA team (Mr. Praveen and Mr. Sreeraj) visited the following villages, namely Kanarpatti, Kattarankulam, Ettankulam, Kalakudi, Kuruchikulam, Vagaikulam, Ukkirankottai, Melelanthaikulam of Tirunelveli and SankaranKoil Taluk in Tirunelveli District, Tamil Nadu 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/	27/12/2011	S.Jayaprakash, (Engineer, Service department)	Enercon (India) Limited.	Technical description of project, Start date of project, CDM consideration, HCA, Environmental legislation, Rules & regulations. Monitoring procedures, day to day record handling
/b/	27/12/2011	M.Paramasivan, (Assistant manager)	Enercon (India) Limited.	Baseline identification, Additionality, ER calculations, Monitoring,
/c/	27/12/2011	Ms.Anushree mishra (Assistant manager (CDM))	Enercon (India) Limited.	Baseline and additionality, identification of barrier. Emission reduction projections, Monitoring and measurement plan, QA/QC procedures, responsibility, data review& controlling the monitoring data.
/d/	28/12/2011	S.Mohan (Stakeholder)	Farmer	Stakeholder consultation process
/e/	28/12/2011	M.Balasubramaniyam	Farmer	

		(Stakeholder)		
/f/	28/12/2011	D.Muthuraman, (Executive ,projects)	Enercon(India) Limited	

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 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.

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**	**Draft Conclusion**	**Final Conclusion**
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in seven 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.	OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. 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		
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	Menon	Rekha	India
CDM Validator	Krishnan	Praveen Kumar	India
Technical Expert CDM	Perne Narayanan	Sreeraj	India
Financial Expert	Raghavan	Nisha	India
Technical Reviewer	Badhwar	Naresh	India
Technical Reviewer	Tong	Wing Yu	Hong Kong (China)

3 VALIDATION FINDINGS

The findings of the validation related to the project, as described in the PDD version 1.0 of 13/01/2012, version 2.0 of 04/07/2012, 3.0 of 27/07/2012, 4.0 of 09/08/2012. /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 Vish Wind Infrastructure LLP 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. India fulfils the requirements to participate in the CDM, having ratified the Kyoto Protocol on 26/08/2002/15/ and establishing as DNA the National Clean Development Mechanism Authority (NCDMA) which is a part of Ministry of Environment and Forests (MoEF), India as per the UNFCCC website/**15**/. The project participant is correctly listed in table A.3 of the PDD and the information is consistent with the contact details provided in Annex 1 of the PDD /**01**/.

The DNA of India issued a Letter of Approval on 02/02/2012/**48**/, authorizing Vish Wind Infrastructure LLP as project participant and confirming that the project assists in achieving sustainable development. The Letter of Approval was received directly by the PP and refers to the precise nature of the project activity in the PDD /**01**/. The validation team confirmed the authenticity of the letter of approval by checking the original copy. RINA also confirmed that the LoA refers to the proposed CDM project activity and the title is in line with the title mentioned in the PDD "Clean Energy Project in the State of Tamil Nadu".

By checking the above documents **/01/ /48**/ RINA considers the LoA in accordance with paragraphs 45-48 of the VVM /**04**/.

As confirmed during the site visit, 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

same has been verified with the CA certificate issued by Mehul Vora & Co, Chartered Accountants/**58**/ and found to be correct.

Project participants	Vish Wind Infrastructure LLP
Parties involved	India
APPROVAL	
LoA received	Yes **/48/**
Date of LoA	02/02/2012
LoA received from	Vish Wind Infrastructure LLP issued by Ministry of Environment & Forests
Validation of authenticity	By verifying the original copy **/48/**
Validity of LoA	Yes
PARTICIPATION	
Party is party to Kyoto Protocol	Yes
Voluntary participation	Yes
Project contribution to SD	Yes

3.2 Project design document

The PDD for the project activity "Clean Energy Project in the State of Tamil Nadu", in "India", version 1.0 of 13/01/2012,version 2.0 of 04/07/2012, 3.0 of 27/07/2012, 4.0 of 09/08/2012 /01/ submitted by the Vish Wind Infrastructure LLP have been the basis for the validation process.

RINA confirms that the above PDD is based on the currently valid PDD template and is completed in accordance with the applicable guidance document. "Guidelines for completing the project design document (CDM-PDD) and the proposed new baseline and monitoring methodologies (CDM-NM) /**20//21**/.

The main differences between the latest PDD submitted for registration and the webhosted PDD are as follows:

1. The PDD/01/ is webhosted with the methodology "ACM0002, version 12.2.0". The same is updated now in the latest PDD /01/ with the methodology of latest version "ACM 0002, version 13.0.0" /05/ as per the UNFCCC site.
2. The location numbers and HTSC numbers were mentioned wrongly in the webhosted PDD. The same is now corrected in the latest PDD.
3. In the webhosted PDD/01/, CEA database of version 6 was used for the calculation of emission factor. The same was not the latest version available at the time of submission of PDD to the DOE. Hence, the latest PDD is updated with the CEA database of version 7./14/
4. The webhosted PDD did not follow the latest additionality tool/22/ to discuss the common practice analysis. The same is updated in the latest PDD. Thus, it complies with the latest additionality tool/22/.
5. In the webhosted PDD, the benchmark calculation was done using the 5 years of inflation rate as per the report of Quarter 4 of FY 2010-2011. The date of report is 25/05/2011, which is after

the decision making date (20/05/20111) as per the board resolution document/**28**/ submitted by the PP. Thus, latest PDD and benchmark sheet is updated with the benchmark calculation based on report of Quarter 3 of FY 2010-2011. The same is cross verified with the official website of Reserve Bank Of India and found that report date is prior to the decision making date.

3.3 Project Design

The purpose of the project activity is utilizing the renewable wind energy sources for the generation of electricity. The generated electricity is supplied to the southern grid (regional grid). The same is cross verified with the physical verification at the project site, PPA's /**53**/, copies of JMR **/59/**, which is accepted by the validation team. The project activity is a green field project activity, which generates 30,691 MWh of electricity annually as per the latest ER calculation sheet /**02**/ cross referring to the technical specification sheet/**57/**, site visit observation and Plant load factor (PLF) of 24.33 % taken from the third party document prepared by the True Wind International Certification/**32**/, who provides management and project consultancy services. The same is verified with the official site of TWIC/**13**/ and noted that TWIC, India is working on projects covering all aspects of Renewable Energy as a project consultant for both technical and methodological issues. Projects with installed capacity more than 50 MW facilitated by TWIC-team have been executed in various states across India like Gujarat, Maharashtra, Tamilnadu, Madhya Pradesh, etc. Moreover, significant number of projects related to PLF issue for CDM projects (Clean Development Mechanism) have been certified by TWIC.

The power generated from the project activity replaces the equal amount of power which otherwise would have been supplied from the fossil fuel dominated southern grid. Thus, project activity helps in reducing 27,546 tCO2e per year. The project is located in the following villages, namely Kanarpatti, Kattarankulam, Ettankulam, Kalakudi, Kuruchikulam, Vagaikulam, Ukkirankottai, Melelanthaikulam of Tirunelveli and Sankarankoil taluk in Tirunelveli District, Tamil Nadu. The location of the project activity is confirmed through the physical verification at the project site, land deed documents /**26**/, commissioning certificates /**25**/ and approval orders /**27**/ and it is noted that the project activity falls under green field activity and prior to the project activity there was no renewable power plant was operating in the project location.

The geographical coordinates of the WEC's are measured using GPS at site during site visit and it is confirmed that the co-ordinates mentioned in the latest PDD/**01**/ is matching with the measured values. Hence, it is accepted by the validation team.

The geographical co-ordinates of the WECs are listed below:

Sl. No	Loc. No.		Latitude			Longitude		
		HTSC No	Deg.	Minutes	Seconds	Deg.	Minutes	Seconds
1	V200	3957	8	52	57.09	77	38	51.01
2	118	3919	8	55	21	77	40	24.28
3	V177	3947	8	52	59.92	77	38	12.89
4	V98	3914	8	53	17.24	77	36	21.54
5	V50	3915	8	52	49.24	77	35	10.4
6	V52	3916	8	52	31.66	77	35	7.49
7	SF 141	3917	8	52	53.03	77	34	59.05
8	168	3918	8	54	51.25	77	36	56.19
9	117	3949	8	55	13.76	77	36	36.15
10	173	3986	8	55	0	77	37	22.1
11	170	3955	8	54	41.45	77	36	37.58
12	135	3948	8	55	4.55	77	36	37.69
13	136	3959	8	53	5.5	77	38	45.7
14	V76	3954	8	52	38.92	77	35	38.99

15	126	3981	8	55	17	77	41	9.7
16	120	3920	8	55	36.25	77	40	42.29
17	V213	3921	8	53	21.95	77	39	23.63
18	V202	3999	8	52	33.8	77	38	56.4

The total capacity of the project activity is 14.40 MW, which involves the installation of 18 WECs each with an capacity of 800kW. These WECs are Enercon E-53 make as confirmed through site visit and technical specification sheets/**57**/. PP has received approval orders/**27**/ for installing all the WECs from TANGEDCO. The same is verified and accepted by the team.

The commissioning of the WECs are done on the following dates:

Sl No	HTSC No's	Date of commissioning
1	3957	20/10/2011
2	3919	29/09/2011
3	3947	30/09/2011
4	3914	29/09/2011
5	3915	29/09/2011
6	3916	29/09/2011
7	3917	29/09/2011
8	3918	29/09/2011
9	3949	30/09/2011
10	3986	10/01/2012
11	3955	07/10/2011
12	3948	30/09/2011
13	3959	21/10/2011
14	3954	07/10/2011
15	3981	28/12/2011
16	3920	29/09/2011
17	3921	29/09/2011
18	3999	31/01/2012

As confirmed through the site visit, all the WEGs are in operation and the commissioning certificates**/25/** for all the WEGs are obtained from the state electricity board. The technology involved in the project activity is converting wind energy into electrical energy. Wind energy technology is a clean technology, as no GHG emission is associated with the electricity generation from wind.

All the WECs are manufactured by Enercon India Limited at Daman Manufacturing unit in India as confirmed through the discussion with the PP and the official site of Enercon(India) Limited/**63**/ As the technology used is indigenous, it is confirmed that no technology transfer is involved in the project activity. The technical specifications of WECs are mentioned below. The same is verified with the technical specification sheet/**57**/ submitted by the supplier and found to be inline.

Turbine model	Enercon (E- 53)
Rated power	800 KW
Rotor diameter	52.9 m
Hub height	75 m (Concrete)
Turbine Type	Direct driven, horizontal axis wind turbine with variable rotor speed
Power regulation	Independent pitch system for each blade.
Cut in wind speed	2.5 m/s
Rated wind speed	12 m/s
Cutout Wind speed	28-34 m/s
Extreme Wind Speed	59.5 m/s

Rated rotational speed	29 rpm
Operating range rot. speed	12-29 rpm
Orientation	Upwind
No of Blades	3
Blade Material	Glass Fiber Epoxy reinforced
Gear box type	Gear less
Generator type	Synchronous generator
Braking	Aerodynamic
Output Voltage	400 V
Yaw System	Active yawing with 4 electric yaw drives with brake motor
Tower	74 m (concrete)

The starting date of the project activity is 30/06/2011, this is the date on which Vish Wind Infrastructure LLP had placed the purchase order for WEC to Enercon India Limited **/34/.** The same is accepted by the validation team since this is the earliest date on which the project participant has committed to expenditures related to the implementation of the project activity as per the Glossary of CDM Term/**07/**. The expected operational lifetime of the project activity is 20 years and this has been confirmed by verifying the life time certificate**/56/** obtained from the manufacturer of WECs.

A fixed crediting period of 10 years has been chosen for the project, starting from 01/10/2012, or the date of registration, whichever is later. The GHG emission reductions are estimated to be average 27,546 tCO_{2e} per year and 275,460 tCO_{2e} over the ten-year crediting period.

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. Further, 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.

3.4 Application of selected baseline and monitoring methodology

The project activity correctly applies the approved baseline and monitoring methodology " ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 12.3.0 of 02/03/2012 /**05**/.

The applicability criteria is discussed in the following table according to the approved methodology:

Applicability Criteria stipulated in the methodology	Validation assessment (applicability criteria to the project activity)
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 proposed project activity is a Greenfield project, which involves the installation of new wind energy converts (WECs) and the generated electricity is supplied to the southern grid. The same is confirmed by the site visit observation, commissioning certificates**/25/,** purchase order/**34**/ and approval orders/**27**/, PPAs**/53/** and copies of the JMR/**59**/ and found to be inline.
The project activity is the installation, capacity addition, retrofit or replacement of	The project activity involves the installation of new wind power converters in the state of Tamil Nadu,

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 • Tidal power plant/unit.	India as confirmed through the site visit. Hence, this condition of applicability is not applicable to this project activity.
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 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;	The project activity is the installation of the new wind energy converters (WECs) at the site where there is no renewable power plant was operating prior to the implementation of the project activity. The same is confirmed through the site visit observation, commission certificates **/25/**, purchase orders/**34/**, and approval orders/**27/** Hence, it is confirmed that project activity is the green field activity and this condition is not relevant to this project activity.
In case of hydro power plants: At least one of the following conditions must apply: • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of reservoirs. • The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per definitions given in the Project Emissions section, is greater than 4 W/m2. • The project activity result in single or multiple reservoirs and the power density of each reservoir, as per definitions given in the project emissions section, is greater than 4 W/m2. In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4W/m2 after the implementation of the project activity all of the following conditions must apply:	This condition is not applicable to the project activity as the project activity is the wind energy based power generation project.

• The power density calculated for the entire project activity using equation 5 is greater than 4W/m2; • All reservoirs and hydro power plants are located at the same river and were designed together to function as an integrated project1 that collectively constitutes the generation capacity of the combined power plant; • The water flow between the multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; • The total installed capacity of the power units, which are driven using water from the reservoirs with a power density lower than 4 W/m2, is lower than 15 MW;	
The methodology is not applicable to the following: • Project activities that involve switching from fossil fuels to 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; • Biomass fired power plants; • Hydro power plant that result in new single reservoir or in the increase in existing single reservoir where the power density of the reservoir is less than 4 W/m2.	As the project activity is the generation of electricity through the wind power sources, this condition is not applicable to the proposed project activity.
In the case of retrofits, replacements, or capacity additions, this methodology is 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".	The project activity involves installation of new wind power converters (WECs). Hence, this condition is not applicable to the project activity.

Initially, PDD/**42**/ for the proposed project activity was webhosted under small scale project activity (period from19/11/2011 to 18/12/2011). However, during validation process and site visit observation dated 27/12/2011 and 28/12/2011, it is noted that some of WEC's (Loc no-119,121,122) are located within 1 km of the project boundary of the proposed project activity from the same PP. Further these WECs are a part of another registered CDM project activity with reg. No. 4846 registered on 08/07/2011/19/. The capacities of the registered and the proposed project activity are 8MW and 14.4MW, respectively which together would cross the capacity limit for small scale project activity as proposed by simplified modalities and procedures for small scale project activities/17/. Hence it was

confirmed by the validation team that the proposed project activity is deemed to be the debundled component of large scale project activity as per the guidelines on assessment of de-bundling for SSC project activities/12/.

In view of the above, PDD,version 1.0 of 13/01/2012/**43**/ was re-webhosted under large scale activity with the applicable requirements (period 10/02/2012 to 10/03/2012).

Through the assessment of project site and documents such as PPAs/**53**/, approval orders/**27/**, purchase orders**/34**/, commissioning certificates/**25**/ and joint meter reading (JMR)/**59**/, RINA confirms that project activity meets all the applicability conditions of the "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of 11/05/2012/**05**/.

During the operation phase, wind mills operate only on wind power and don't use any fossil fuels for its working. Since this is a windmill project and the project implementation involves only the assembly of various components of the windmill over the cement concrete basement, it is not expected to have any emission sources that are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction and hence have not been identified.

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.

3.5 Project boundary and baseline identification

3.5.1 Project boundary

According to the approved consolidated baseline and monitoring methodology "ACM0002" of "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of 11/05/2012 **/05/**, 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. Thus, the project boundary of the proposed project activity includes the WEGs, the transformers, enercon substation, and the Southern regional grid where the electricity generated is supplied into. The consistency of the project boundary is confirmed through the onsite inspection and further verified by checking the documents such as purchase orders **/34/**, commissioning certificates **/25/**, Land deed agreements **/26/,** approval orders**/27/** and Power purchase agreements **/53/**.

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

	GHGs involved	Description
Baseline emissions	CO_2	Electricity that would have been generated by the fossil fuel dominated power plants connected to Southern regional grid (regional grid).
Project emissions	Nil	The project activity is the wind based renewable power generation project . Hence, it is not applicable as per the applied methodology ..
Leakage	Nil	No leakage is considered for the proposed project activity as per the applied methodology/05/.

By checking the information and the project site, RINA can confirm that the project boundary and emission sources described in the PDD version 4.0 of 09/08/2012 are accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

3.5.2 Baseline 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 /**05**/,t he baseline scenario is the following:
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**/.

Project activity involves the generation of electricity using wind power and selling it to Southern Regional grid. In the absence of this project activity, the same amount of electricity would have been generated by the operation of existing/proposed grid connected fossil fuel based power plants. The same was cross checked and confirmed by referring the CO_2 Baseline Database for the Indian Power Sector, User Guide (Version 7.0, January 2012) issued by Central Electricity Authority **/14/**. The CEA database used by the PP is accepted by the team as this is the latest version available at the time of submission of PDD to DOE as per the “tool to calculate the emission factor for an electricity system “. /**10**/

RINA confirms this baseline as it reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity and is the only baseline scenario applicable for this project activity as mentioned in the methodology “ACM0002”, version 13.0.0 /**05**/. Hence as per paragraph 105 of VVM, version 01.2, dated 30/07/2010 **/04/**, no further analysis is required on identification of alternatives for the baseline scenario.

3.6 Additionality

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/**05**/, the additionality of the project has been established applying the tool “Tool for demonstration and assessment of additionality”, version 06.0.0/**22/**.

The above opinion of RINA to the additionality of the proposed project is further explicitly explained in the section 3.6.3.

3.6.1 Prior consideration of the clean development mechanism

The start date of the project activity is 30/06/2011 which is based on the date of the release of purchase order to the supplier for the WECs by Vish Wind Infrastructure LLP **/34/**. Validation team has accepted the start date since this is the earliest date at which the PP has committed itself to the expenditures related to the implementation of the project activity as per the Glossary of CDM Terms **/07/**. The validation team has verified the same by cross checking the purchase order released by Vish Wind Infrastructure LLP to Enercon India Limited dated 30/06/2011 for 18 WEC’s **/34/** and confirms that the start date selected is appropriate.

The identified start date (30/06/2011) is prior to 10/02/2012 when the PDD was published for global stakeholder consultation. PDD was webhosted for global stakeholder comments from 10/02/2012 to 10/03/2012/**43**/. Hence as per the “Guidelines on the demonstration and assessment of prior consideration of the CDM”, version 04, dated 15/07/2011**/06/**, for project activity with a start date on or after 02/08/2008, project participant must inform the Host Party DNA and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status. It was noted that PP had intimated the prior CDM consideration to UNFCCC and DNA of the host country through mails dated 15/09/2011/**36**/. The notification was made within six months of the project activity start date. The same is reflected in the UNFCCC site /**09**/ having received on 15/09/2011. The validation team has crosschecked the copy of mail intimation/36/ and the acknowledgement mail from UNFCCC dated 10/11/2011/**46**/, DNA of India (host country) dated 15/09/2011/**45**/ and found to be appropriate.

In conclusion, in accordance with the requirements of the Guidance on the demonstration and assessment of prior consideration of the CDM/**06**/ and VVM/**04**/, RINA can confirm that the CDM was considered seriously in the decision to implement the project activity.

3.6.2 Identification of alternatives

As per the methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0.. of 11/05/2012 /**05**/, the baseline scenario 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**/.

Hence as per para 105 of VVM /**04**/ since the baseline is already defined by the methodology, alternatives are not identified.

3.6.3 Investment analysis

Investment analysis is chosen by the PP to demonstrate the additionality of the project activity as per the step2 of the additionality tool /22/.

3.6.3.1 Choice of approach

PP has selected the investment analysis to demonstrate the additionality as per the additionality tool "Tool for the demonstration and assessment of additionality ", version 06.0.0/**22**/, and had established the benchmark analysis as per the "Guidance on the assessment of investment analysis" version 5/**18**/.

Since the project generates financial benefits other than CDM revenue in the form of selling electricity, PP cannot apply simple cost analysis. The alternative to the project activity is the supply of electricity from the southern grid (regional grid), hence Investment comparison analysis is also not appropriate in accordance with "Guidelines on the assessment of Investment Analysis", version 05 dated 15/07/2011, EB62, Annexure 5 **/18/**. Hence the project developer has chosen to apply the benchmark analysis method. Tool for the demonstration and assessment of additionality, version 06.0.0, dated 25/11/2011 **/22/** recommends a financial/ economic indicator such as IRR, for demonstrating the additionality using benchmark analysis Thus, PP has identified the post tax Equity IRR as the most suitable financial indicator.

3.6.3.2 Benchmark selection

Guidelines on the Assessment of Investment Analysis, version 05/**18**/ recommends the default values for calculating the return on equity. The value recommended for group 1 activities (energy industries, energy distribution) for India is 11.75%. The guideline also states that when the investment analysis is prepared on nominal terms, the PP can also add the inflation rates forecast by the central bank of the country to obtain the benchmark. Since, in the analysis of equity IRR, PP has considered the fixed electricity tariff as per the TNERC tariff order/65/ which takes into account the rate of inflation. Similarly, O & M cost accounts rate of inflation. Hence, the equity IRR is calculated in nominal terms. Accordingly, the PP has considered the inflation rates suggested by the Reserve Bank of India(RBI), which is the central bank of India(host country). According to the Reserve Bank of India, the WPI inflation is expected to be 6.00% for five years/67/. Thus, the benchmark is 18.46%.

It is noted that WPI inflation rate represents the appropriate measures for inflation as it is the headline inflation for policy articulation of India (host country) as confirmed through the data base of RBI/75/ and PP has calculated the benchmark value using the compounding formula referred in the book "Corporate Finance Theory and Practice" written by Dr. Aswath Damodaran of Stern School of Business, New York University /76/ for converting the real terms into nominal terms. The same was cross verified and accepted by the team.

Thus, the suitability of the benchmark and the appropriateness of calculations adopted has been verified and found to be inline with the guidelines on the assessment of Investment Analysis/18/

3.6.3.3 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,version 4.0 of 09/08/2012 /01/ are consistent with that of the IRR calculation sheet/**03**/ and benchmark analysis sheet /**03**/. The lifetime of the WECs are confirmed to be 20 years as per the technology supplier /**56**/ 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 /**18**/.

Parameter verified	Unit	Value	Source	Validation assessment & cross checking
Capacity of Machines	kW	800	Enercon(India) Limited Offer/**40**/, Purchase order /**36**/from Vish Wind Infrastructure LLP	Verified against Enercon (India) Limited's offer letter/40/, dated 05/05/2011 and found to be correct. Further, Cross verified purchase order/**34**/, dated 30/06/2011 and project site .
Number of Machines		18	Enercon(India) Limited Offer/**40**/, Purchase order /**34**/from Vish Wind Infrastructure LLP	Verified against Enercon (India) Limited's offer letter/40/, dated 05/05/2011 and found to be correct. Further, Cross verified purchase order/34/, dated 30/06/2011 and project site .
Project Capacity	MW	14.4	Enercon(India) Limited Offer/**40**/, Purchase order /**34**/from Vish Wind Infrastructure LLP and Technical specification sheet/**57**/ from the supplier	Verified against Enercon (India) Limited's offer letter/40/, dated 05/05/2011 and found to be correct. Further, Cross verified purchase order/34/, dated 30/06/2011, Technical Specification Sheet/**57**/ and project site .
Project commissioning date		31/10/2011	Enercon(India) Limited Offer/**40**/, commissioning certificates/**25**/ from TANGEDCO	Verified against Enercon India's offer letter, dated 05/05/2011/**40**/, which specifies that project will be commissioned by 31/10/2011 subject to availability of the machine and site. The project commissioning date is cross verified with the actual commissioning certificates/**25**/ of the WEC's and found that the project WEC's are commissioned from 29/09/2011 to 31/01/2012.
Project Cost per MW	INR. In Millions	59.34	Enercon(India) Limited Offer/**40**/, Purchase order /**34**/from Vish Wind Infrastructure LLP,CA certificate /**58**/,Board resolution /**28**/	The offer letter/**40**/ from technology supplier M/s Enercon (India) Ltd. dated 05/05/2011 was available at the time of investment decision on 20/05/2011/**28**/. The validation team crosschecked the purchase order/**34**/ released by PP and

				found that only 7.3% decrease is realized which has been already considered by PP in the sensitivity analysis. Further, PP has submitted the CA certificate /**58**/from Mehul Vora & Co, dated 01/06/2012 for the actual project cost of the project activity. Based on the same, it is INR 79.2Cr. Thus, the variation in price is below 10 %(7.3%), which has already been considered by the PP in the sensitivity analysis. Hence, the project cost was found acceptable as per the offer letter /**40**/ The IRR does not cross the benchmark, when using the actual project cost in financial calculations.
Operations				
Plant Load Factor Base Case		24.33%	Third Party PLF report/**32**/, Official site of TWIC/**13**/	Verified against True Wind International's Plant load factor report /**32**/dated 26/08/2011 (page 32) and found to be correct. As per the paragraph 3(b) of the guidelines, the plant load factor (PLF)/32/ determined by a third party contracted by the PP can be accepted. <u>Credibility of the Third Party</u> : True Wind International certification provides management and project consultancy services. The same is verified with the official site of TWIC /**13**/and noted that TWIC, India is working on projects covering all the aspects of Renewable Energy as a project consultant for all technical and methodological issues. Projects with installed capacity more than 50 MW facilitated by TWIC-team, have been executed in various states across India like Gujarat, Maharashtra, Tamilnadu, Madhya Pradesh etc Moreover ,Significant number of projects related to PLF issue of CDM

				projects (Clean Development Mechanism) have been certified by TWIC.
Insurance Charges @ % of capital cost		0.12%	Insurance Quote from Insurance provider/**55**/	Verified against the Insurance Quote/**55**/ and found to be correct.
Operation & Maintenance Cost base year	@ % of capital cost	1.31%	Enercon's offer /**40**/(6.20 per WEC as per offer letter which is 1.31% of project cost)	O&M charges will be free for the first year from date of commissioning. The charge for second year is mentioned to be Rs.6.20 lakhs p.a with an escalation of 6% every year over the previous year up to the 10th year. Service charge will be extra at actual as verified with the Enercon offer letter /**40**/.
% of escalation per annum on O & M Charges		6.0%	Enercon's offer/**40**/	Verified against Enercon India's offer letter dated 05/05/2011/40/ and found to be correct. The O&M cost is under the control of technology supplier, that is Enercon India Limited, which has fixed the O&M cost for the proposed project activity. The same was verified with the offer letter /40/ available at the time of decision making and found to be inline. , The escalation rate has been fixed by the O&M service provider, which will be paid directly by the PP.
Service Tax on O&M expenses		10.3%	Income Tax Act (Financial Year 2011-12)/**64**/	Verified against Indian Income tax rules/**64**/ and found to be correct.
Tariff				
Base year Tariff for 20 years -	Rs./Kwh	3.39	Tariff Order (2009-2010)/**65**/	Verified against the tariff order and found correct. As the tariff orders are publicly available documents of the decision making authorities, it is accepted. Tariff is fixed for 20 years as approved the Tamil Nadu State Electricity Regulatory Commission .The same was verified with the tariff order /65/ and found to be correct. Therefore, escalation is not considered in the tariff.

Project Cost				
Land and Infrastructure, Generator & Electrical Equipments, Mechanical Equipments, Civil Works, Instrumentation & Control, Other Project Cost, Pre operative Expenses, etc.	INR Million	854.46	Enercon Offer/40/	The offer letter/**40**/ from technology supplier M/s Enercon (India) Ltd. dated 05/05/2011 was available at the time of investment decision on 20/05/2011 /**28**/. The validation team crosschecked the purchase order /**34**/ released by PP and found that only 7.3% decrease is realized which has been already considered by PP in the sensitivity analysis. Further, PP has submitted the CA certificate /**58**/from Mehul Vora & Co, dated 01/06/2012 for the actual project cost of the project activity. Based on the same, it is INR 79.2Cr. Thus, the variation in price is below 10 %(7.3%), which has already been considered by the PP in the sensitivity analysis. Hence, project cost was found acceptable as per the offer letter /**40**/
Means of Finance				
Own Source		100%	Board Note /**28**/and CA certificate /**58**/	The project is 100% equity the same is verified against the board note /**28**/and cross verified against the CA certificate /**58**/and found to be in line.
Income Tax Depreciation Rate (Written Down Value basis)				
on Wind Energy Generators		80%	Income Tax Act/**64**/	Depreciation has been calculated as per the income tax rules/**64**/. In computing the income tax liability, the project developer has taken into account the accelerated depreciation, which the wind turbines are eligible for and the Tax shelter (under the Income Tax Act, 1961), which the infrastructure projects (under which the project activity falls) are entitled to.
Book Depreciation Rate (Straight Line Method basis)				

On all assets		4.5%	http://www.mca.gov.in/Ministry/pdf/Companies_Act_1956_13jun2011.pdf/**66**/	Verified the reference link /**66**/submitted by the PP and found to be correct.
Book Depreciation up to (% of asset value)		90.0%	http://www.mca.gov.in/Ministry/pdf/Companies_Act_1956_13jun2011.pdf /**66**/	Verified with the reference link /**66**/submitted by the PP and found to be correct.
Income Tax				
Income Tax rate		30.90%	http://law.incometaxindia.gov.in/DIT/Income-tax-acts.aspx/**64**/	The tax rate assumed corresponds to the tax rate prevailing at the time of taking decision making as per the board resolution /**28**/. Hence, the income tax rate taken is accepted.
Alternate Minimum Tax		19.06%	http://law.incometaxindia.gov.in/DIT/Income-tax-acts.aspx/**64**/	The tax rate assumed corresponds to the tax rate prevailing at the time of taking decision making as per the board resolution /**28/.** Hence, the income tax rate taken is accepted.
Working capital				
Receivables	no of days	30	PPA/**53**/ and Offer letter/**40**/	The billing cycle (30 days) taken by the PP is cross verified the PPA /**53**/and Offer letter/**40**/ and found to be correct.
O & M expenses	no of days	90	Enercon's Offer/**40**/	Verified against Enercon(India) Limited's offer letter/**40**/ dated 05/05/2011 and found to be correct.
Salvage Value				
		10 %	http://www.mca.gov.in/Ministry/pdf/Companies_Act_1956_13jun2011.pdf /66/	The project activity will be depreciated up to the 90 % of the project cost as the land is not considered as depreciable item. Thus, the 10 % of remaining value (difference between the total cost and land) is considered as the salvage value in the project activity. Verified the reference link/66/ and found to be inline.

RINA thus confirm that all input data, assumptions used in the investment analysis were available at the time of investment decision. The validation team cross checked all data parameters against credible sources (where available public sources and third party reports) and confirm that the values

used in the PDD and investment analysis are consistent with the sources used for the input parameters.

3.6.3.4 Calculation and conclusion

RINA went through the IRR calculations and benchmark calculations named, “Benchamark.xlsx” submitted on 28/06/2012 and “Investment Analysis_Webhosting_01 Aug 2012.xlsx” submitted on 09/08/2012**/**03**/** in detail and confirms all the input values and assumptions made to be transparent and conservative. The validation team here by concluded that the Equity IRR for the project activity without CDM revenues is 8.02%, which confirms that the proposed project activity in absence of CDM benefits and compared to the benchmark IRR of 18.46% is not financially attractive.

The assessment involves checking the data input taken from quotation/documents, adoption of correct accounting principle and arithmetical accuracy. The validation team has checked the quotation/ documents and ensured that right input has been taken in the project cost and projections. The accounting principles adopted with respect computation of interest during construction, block of assets, pro rata expenses and tax computation are found to be in order. The arithmetical accuracy is also found to be correct. The principle adopted by the project developer for computing project IRR is in conformity with the “Guidance on the Assessment of Investment Analysis /**18**/“issued by EB.

In conclusion, The Equity IRR does not cross the benchmark under all circumstances as shown above, hence we conclude that the project is additional

3.6.3.5 Sensitivity analysis

The Guidance on assessment of investment analysis /**18**/ requires that the investment analysis should contain a sensitivity analysis that supports the robustness of the conclusion arrived at by varying the critical assumptions to a reasonable variation (± 10%). The project developer has identified the following parameters as the most critical assumptions.

- Plant Load Factor
- Project Cost
- Operation and Maintenance Cost
- Tariff

Parameter	Changes/variation		Breakeven point	Probability of the situation
	+10%	-10%		
PLF	9.64%	6.29%	42.01%	The PP has calculated the financial analysis using the PLF suggested by third party experts/**32**/. A consistent increase of PLF of over 42.01% is not possible.(that is 72.69% of variation, which is not possible) .
Project Cost	6.29%	10.08%	36.39%	The PP has already incurred capital expenditure and the total cost incurred is INR 792million i.e less than 10% variation as per the purchase order/34/. Hence the breakeven point would not be reached. PP has submitted the CA certificate /**58**/from Mehul Vora & Co, dated 01/06/2012 for the actual project cost of the project activity.

				Based on the same, it is INR 79.2Cr. Thus, the variation in price is below 10 %(7.3%), which has already been considered by the PP in the sensitivity analysis. Hence, the project cost was found acceptable.
O&M expenses	7.72%	8.31%	Not Applicable	IRR does not cross the benchmark even when the O&M expenses are fully eliminated or at 100% variation The O&M cost will be free for one year from the date of commissioning as verified from the offer letter/40/. However, Charges for the second year will be Rs. 6.20 lacs per WEC per annum with escalation of 6 % every year over the previous year up to 10th year as confirmed through the offer letter/40/. Hence, it is very unlikely that O&M cost becomes zero for the project activity from second year onwards. Hence, the O&M cost is taken from OCT-2012 for the expenses calculation.
Tariff	9.64%	6.29%	72.69%	Tariff is fixed by the State utility for 20 years, which is the life time of project activity. The same is verified with the tariff order/65/ and found to be in line. It is noted that tariff is crossing the benchmark at the variation of 72.69%, which is not realistic.

As shown above, the PP has carried out a fairly exhaustive sensitivity analysis which proves that the equity IRR does not cross the benchmark within the possible scenarios.

In conclusion, the result of the investment and sensitivity analysis have shown that the project is highly dependent on the CDM benefits and that without the income from CERs, the project activity is not financially attractive.

3.6.4 Barrier analysis

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

3.6.5 Common practice analysis

PP has chosen host country as a default for the common practice analysis as per the additionality tool. The same is found to be appropriate. As per the tool/22/, the applicability range of +/-50% of the total capacity of the project activity should be taken for the analysis. Therefore, PP has taken the wind

power projects in the range of capacity between 7.2 MW to 21.6 MW (+/-50% of 14.4 MW) for the analysis.

As per the paragraph 9 of the tool, the technology used in the project activity is distinguished by the PP in the following ways:

Energy Source :

There are technologies other than project activity (wind power generation) to generate the electricity such as solar, hydro, biomass, coal, gas, and diesel and nuclear can be termed as different technology.

Investment Climate:

iv) Legal regulations

The project can be distinguished based on one of the parameters mentioned under the investment climate that is legal regulations. In India, each state has its own respective regulatory commissions to determine and fix the tariff for the projects which supply electricity to their grid by means of long term agreement (PPA) between the distribution licensee and project developers. Hence, tariff rate and electricity regulations vary from state to state, which is evident from tariff orders of different states /**68-74**/.

The projects which use the technology other wind power have already been termed as different technology under the condition of energy source. In addition to that, the wind power technologies which are commissioned in different regulatory regime can be termed as different technology.

Hence, the wind power projects in Tamilnadu can be termed as different technology.

As per the sub-step 4a of the additionality tool, ***PP has analyzed other activities which are similar to the project activity*** and it is noted and confirmed from wind power directory /**52**/, that 81 wind power projects are available in the capacity range from 7.2 MW to 21.6MW. Out of these project activities, the 79 projects are either registered with UNFCCC or under the validation for registration with UNFCCC or under VCS scheme for earning carbon credits. Hence, there are total of 2 projects which are similar to the proposed CDM project activity.

For the measures, which are listed in paragraph 6 of the additionality tool/22/, the stepwise approach has been taken in order to calculate the Factor F and (N_{all} -N_{diff}).

Stepwise approach analysis has been taken in the PDD /01/ in accordance with the tool /22/.

1) The capacity range was selected to be +/-50% of the design capacity of the proposed project, i.e. 7.2MW-21.6 MW in Step 1, which is in line with the tool /**22**/.
2) Identification of all plants that deliver the same output or capacity has been included in Step 2 following the tool /**22**/. RINA studied a latest Wind Power Directory released by Consolidated Energy Consultants Limited, India /**52**/, reference links/78/,/79/,/80/ provided by the PP and found to be correct. Thus , N_{all} is calculated as 466.
3) The technology , that is different from the technology applied in the proposed project activity is identified as discussed above based on the energy source and investment climate inline with the additionality tool/22/. Thus , N_{diff} comes to be 464
4) Calculation of F-factor
   $F=1-N_{diff}/N_{all}$

F= (N_{all} -N_{diff})/N_{all} N_{all}- N_{diff}=2 and F=0.0042

As per calculation done, F factor is less than 0.2 and N_{al}l-N_{diff} is less than 3. The same has been verified against common practice analysis sheets /**62**/ submitted by the PP and Wind Power Directory

/**52**/, reference links provided by the PP /78/,/79/,/80/ and found to be in line. Hence , The proposed project activity is not a common practice" within a sector in the applicable geographical area as per the conditions stipulated in the paragraph 47, step 4 of the additionality tool /22/.

Sub-step 4b- Discuss any similar Options that are occurring:

The above discussion clearly shows that the wind power project is not common practice in Tamilnadu. Therefore it is concluded that the proposed project activity is not "common practice" within a sector in the applicable geographical area and the proposed project activity is additional.

3.6.6 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 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.

3.7 Monitoring Plan

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 /**05**/ 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; no deviations relevant to the project activity have been found in the 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 the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified.

3.7.1 Parameters determined ex-ante

As per the methodology ACM0002, version 13.0.0 **/05/**, The combined margin CO_2 emission factor for the grid connected power generation in year y is calculated using the latest version of the tool "Tool to calculate the emission factor for an electricity system, version 02.2.1 dated 29/09/2011/**10**/. Data used in the calculation should be from official source (where available) and made publicly available. Hence, PP has used the CO_2 Baseline Database for the Indian Power Sector, User Guide (Version 7.0, January 2012) issued by Central Electricity Authority **/14/**. The CEA data base used by the PP is accepted by the team as this is the latest version available at the time of submission of PDD to DOE as per the "tool to calculate the emission factor for an electricity system". /10/

The following parameters are determined ex-ante to calculate the baseline emissions,

Simple operating margin emission factor (inclusive of imports) - $EF_{grid,OM,y}$

This parameter has been calculated based on the "Tool to calculate the emission factor for an electricity system, Version 02.2.1, EB 63"/10/, The value has been fixed ex-ante and is taken from CO_2 Baseline Database for the Indian Power Sector, User Guide (Version 7.0, Date: January 2012)/14/. Validation team has accepted the same as it was the latest document publically available to PP at the time of submission of PDD to the DOE. The value has been determined to be 0.95210 tCO_2/MWh. Validation team has checked the calculation provided in the ER sheet named "Emission Reduction Calculations.xls" submitted on 09/08/2012 **/02/** and confirmed that it is correct and is determined as per the tool applied.

Build margin emission factor - $EF_{grid,BM,y}$

This parameter has been calculated based on the "Tool to calculate the emission factor for an electricity system, Version 02.2.1, EB 63"/10/. The value has been fixed ex-ante and is taken from CO_2 Baseline Database for the Indian Power Sector, User Guide (Version 7.0, Date: January 2012). Validation team has accepted the same as it was the latest document publically available to PP at the time of submission of PDD to the DOE/01/. The value has been determined to be 0.73389 tCO_2/MWh. Validation team has checked the calculation provided in the ER sheet named "Emission Reduction Calculations.xls" submitted on 09/08/2012.**/02/** and confirmed that it is correct and is determined as per the tool applied.

Combined margin emission factor - $EF_{grid,CM,y}$ (for Southern Regional Grid)

This parameter has been calculated as a weighted average of operating margin emission factor and build margin emission factor. The weighting of operating margin and build margin emission factor has been taken as 0.75 and 0.25 respectively. The same is in line with the tool applied. Thus value of CM emission factor was determined to be 0.89755 tCO_2/MWh. Validation team has checked the calculation provided in the ER sheet named "Emission Reduction Calculations.xls" submitted on 09/08/2012. **/02/** and confirmed that it is correct and is determined as per the tool applied/10/. The value is fixed ex-ante and is fixed for the entire crediting period.

3.7.2 Parameters monitored ex-post

The monitoring plan makes provisions for the measurement of the parameter for each of the WECs in the project activity which will allow for the ex-post assessment of emission reductions.

Net Electricity supplied to Southern Regional Grid; $EG_{BL,y}$

This is calculated as the difference between the total export and import of electricity to the grid as monitored from the TNEB meter of all the WEC's.

The value of net electricity is taken from the TNEB statements, which are prepared by TNEB based on the monthly readings taken in the presence of PP or the representatives of PP at TNEB meter located near WEC's, main meter and check meter at the enercon substation. The net electricity supplied as shown in TNEB statement can be cross verified with the invoices raised by the PP to the TNEB and from the payment received details from TNEB by the PP.

Measurement methods and procedures:

The export, import of electricity and transmission losses are calculated by the TNEB based on the monthly readings taken in the presence of PP or representatives of PP at TNEB meter located near WEC's, main and check meter located at the enercon substation. The main and check meters located at enercon substation are used to monitor the electricity generation of all the WEC's (both WEC's of project activity and non project activity). Based on the monthly readings, TNEB will calculate the transmission losses, export and import of electricity for all the individual WECs of project activity and issue the monthly statement to the PP. Based on the monthly statement, invoices will be raised to TNEB. Emission reductions will be calculated based on the value of net electricity generation taken from the monthly statement prepared by TNEB.

Total export from the WEC's in a year y; $EG_{export,y}$

This parameter is monitored through the bi-directional tri-vector meter installed by TNEB adjacent to each WEC. The meter is of accuracy class 0.2s. The same was confirmed by the validation team during the site visit. Further meter will be calibrated once in five years as per the metering regulations stipulated by the CEA,India /77/ and the state utility is responsible for the same as per the power purchase agreements signed between the two parties **/53/**. The readings will be monitored continuously and recorded monthly as confirmed through the site visit .

Total import from the WEC's in a year y; $EG_{export,y}$

This parameter is monitored through the bi-directional tri-vector meter installed by TNEB adjacent to the WEGs. Both the export to the grid and import from the grid is monitored from this same meter. The readings will be monitored continuously, hourly measured and recorded monthly as described above.

Transmission Losses; T_E

This parameter is calculated by TNEB based on the monthly reading taken by TNEB in the presence of PP or representatives of PP. The same is reflected in the TNEB monthly generation statement. This parameter is applied by TNEB to arrive at the net electricity generation from all individual WECs of the

project activity. This parameter is calculated on a monthly basis to prepare the monthly electricity generation report by TNEB for all the WECs. The same is confirmed by cross checking the monthly statements/**59**/ submitted by the PP.

Validation team has cross-checked all the above meters during the site visit and found that these meters are in working condition and the accuracy class of the meters mentioned in the latest PDD is appropriate.

3.7.3 Management system and quality assurance

The net eletricity generation supplied to the southern grid is measured using TNEB meter at WEC site, main and check meter at enercon substation. The value of net electricity generation is taken from the TNEB monthly statement for the calculation of emission reductions for the proposed project activity. TNEB statement has the following parameters such as export readings, import readings of electricity and transmission line losses. These parameters are being taken on monthly basis by TNEB in the presence of PP or the representatives of PP. The export and import readings are taken at TNEB meters located at the WECs site, main meters and check meters at enercon substation .The main meter and check meter at enercon substation are connected to both project activity and non project activity. Based on these monthly readings, TNEB will arrive at the net electricity generation of all individual WEC's of the project activity. The same will be reflected in the TNEB monthly generation statement. PP will raise the invoice to TNEB based on this statement

All the metering equipments are sealed and controlled by state utility. The calibration of meters will be done once in 5 years by state utility. The same complies with the "Guidelines for Assessing Compliance with the Calibration Frequency Requirements "/**61**/. All the meters (TNEB meter, Main meter and Check meter) are of accuracy class 0.2S as confirmed during the site visit. Further, it is noted that the accuracy class of the meter is inline with the notification issued by the Central Electricity Authority, India , No. 502/70/CEA/DP&D, dated 17/03/2006/**77**/. Hence , accepted by the team.

In case of main meter failure at enercon substation, the reading from the check meter will be used for the preparation of the electricity generation. Then, main meter will be calibrated/repaired/replaced immediately. In case of check meter failure, the check meter will be replace/calibrated /repaired immediately. However, it will not have any impact on the measurement of electricity generation from the enercon substation as the reading is being taken from the main meter. Thus, the check meter is being used for cross checking and backup purpose. In case of TNEB meter failure, the same will be either replaced/repaired or calibrated immediately. The net electricity generation will be calculated as per the provisions mentioned under meter arrangements in the PPA /**53**/. The same is cross verified with the PPA and found to be inline. As the PPA is executed by the TNEB,, which is the Tamilnadu Government authority, the provisions stipulated to calculate the net electricity generation can be deemed authentic and appropriate. Further, it is noted that PP has identified and mentioned the procedure to calculate the emission reductions in case of data uncertainty. The enercon India limited is the operation and maintenance contractor for the proposed project activity, the same is confirmed with the offer letter/40/ submitted by Enercon India Limited and site visit observation. The daily generation are monitored and recorded by the O& M contractor. These daily generation reports are being sent to PP. PP will monitor and maintain records after the implementation of project activity. The monthly statement of electricity generation are maintained both by PP and O&M contractor. The O&M contractor will have the responsibility for maintaining the electricity generation records, calibration records and maintenance of the WECs. All the data will be archived both in the electronic form and hard paper during the crediting period plus 2 years.

The responsibilities and authorities of project management, data handling and recording, measurement methods, apportioning procedure and QA/QC procedure have been systematically established and formalized and the same was evident to the validation team during the site visit and found appropriate.

RINA confirms that the monitoring plan mentioned in the PDD is in accordance with the requirements of the monitoring methodology and the local regulatory requirements of the state utility. The monitoring plan will give opportunity for real measurement of achieved emissions reductions.

3.8 Estimation of GHG emissions

PP has correctly applied the formulas provided by the methodology ACM0002, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”,version 13.0.0/05/ in order to calculate project, baseline and leakage emissions and emission reduction.

Baseline Emissions

The baseline emissions are calculated as per the approved methodology ACM 0002 , version 13.0.0 **/05/** and is best suited for this project activity. Baseline emission is determined as the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by combined margin CO_2 emission factor. Combined margin CO_2 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,version 02.2.1/10/

The combined margin factor is the combination of two emission factors pertaining to the electricity system viz, the operating margin and build margin. The operating margin emission factor has been calculated based on Simple OM method as the low-cost/ must run resources constitute less than 50% of total grid generation as confirmed through the CEA data base/14/. Ex ante data vintage has been opted by the PP for calculating Simple OM. Subsequently the generation weighted average for the years 2008-09, 2009-10 and 2010-11 has been considered. Validation team has accepted the same as it was the most recent data available at the time of submission of the PDD to the DOE for validation. Thus the simple OM emission factor is determined to be 0.95210tCO_2/MWh. Further, BM emission factor has been calculated based on option A1 as indicated in the “Tool to calculate the emission factor for an electricity system”/10/. As per the tool, BM emission factor has to be calculated for the set of power plants that comprises the larger annual generation among i) 5 most recent power units, ii) the units that comprise at least 20% of the system generation excluding CDM. PP has opted the latter approach as it yields the larger sample in India. The same was evident in the “CO_2 baseline database for the Indian power sector”, user guide, version 7.0 published in January-2012/14/. Validation team has checked the same and confirmed to be appropriate. Accordingly the BM emission factor is determined to be 0.73389tCO_2e/MWh, this is based on most recent year, 2010-11, for which power generation data was available. Thus the combined margin emission factor has been calculated to be 0.89755tCO_{2e} /MWh. The source of this data is CEA CO_2 baseline Database, version 7.0 **/14/**. The validation team accepted the same as this was the latest version of the database publically available to the project participant at the time of submission of PDD for validation. The quantity of the net electricity generated is calculated based on the PLF provided by third party approval document**/32/** prepared by True wind international certification, which is an independent third party consultant who provides management and project consultancy services. Thus, it complies with the guidelines for the reporting and validation of plant load factor/23/. Hence, it is accepted by the team.

Project Emissions

As per the methodology ACM0002, version 13.0.0/05/, for most renewable power generation project activities PEy = 0. Since this project activity involves grid connected renewable electricity generation through the wind electric generators, the project emissions are considered as zero.

Leakage

No leakage is considered as per the methodology/05/. The methodology states that “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, and transport). These emissions sources are neglected”. As the project activity is the wind based power project, these emissions sources are neglected.

Emission Reductions

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

The following is the formula used for the same,

$ER_y = BE_y – PE_y - LE_y$

ER_y -Emission reductions during the year y.

BE_y -Baseline emissions during the year y.

PE_y -Project emissions during the year y.

LE_y - Leakage emissions during the year y.

Based on the above consideration, the emissions reductions from the project activity will be the baseline emissions and have been determined to be 27,546CO_2e per year throughout the fixed crediting period of 10 years. Validation team has verified the emission reduction calculation sheet/**02**/ and found appropriate.

Hence, the RINA concludes that the project emissions, baseline emissions, leakage and emission reductions stated in the PDD version 4.0 of 09/08/2012/01/ and emission reduction spread sheet named named "Emission Reduction Calculations.xls" submitted on 09/08/2012 **/02/** are calculated correctly, accurately and conservatively as per the approved methodology ACM0002, version 13.0.0/05/. RINA also confirms that all estimates of the emission reductions can be replicated using the data and parameter values provided in the PDD and supporting files submitted for registration and concludes that the estimates provided in the PDD are reasonable and the project participant has correctly applied the methodology.

3.9 Environmental Impacts

The project activity does not fall under the purview of Environmental Impact Assessment (EIA) as per the notification from MoEF dated 01/12/2009, schedule 1 of Ministry of Environment and Forests (Government of India) notification dated 27/01/1994 and EIA Notification (S.O 1533) dated 14/09/2006 /**44**/. The same has been verified and confirmed by the validation team. Hence it is not required for the PP to conduct an Environmental Impact Assessment for this project activity. However, PP has done an environmental analysis of the project activity, which is presented in the PDD. The project activity is expected to have positive impacts to the environment and would lead to the new employment opportunities in the region. The same was verified by the validation team during the site visit and found appropriate. It is noted that the local villagers are involved during the erection and commissioning and also as security personnel in the project activity. No negative impact is foreseen for this project activity as it is wind power project activity. Validation team has also verified all the clearances obtained for this project activity which includes PPAs /**53/**, commission certificates/**25**/ and approval orders/**27**/.Thus, the validation team confirms that all the clearances obtained are in accordance with the procedures required by the host party.

3.10 Local stakeholders consultation

Prior to the publication of the PDD on the UNFCCC website from 10/02/2012 to 10/03/2012, the Project owner has arranged a Stakeholder's consultation meeting to discuss possible stakeholders concerns on the proposed CDM project activity "Clean Energy Project in the State of Tamil Nadu" conducted at Tirunelveli District in Tamil Nadu on 21/10/2011/35/.

The invitation was published in the local newspaper (Dhinathanthi) on 04/10/2011 inviting the local stakeholders for the stakeholder meeting. The same was verified with the scan copy of newspaper submitted by PP/**37**/, photocopies of meeting /**37**/ and found to be inline.

There were thirty five people who attended the stakeholders meeting. The same was verified with the stakeholders consultation report**/35/** and found to be inline. RINA has verified the lists of the participants who attended the meeting and confirms that relevant stakeholders were involved in the consultation process/**35**/.

Further, a summary of comments /**35**/ was provided and has been verified by RINA to confirm that no negative comment was received and the same was also cross-verified during the site visit by interviewing some of the stakeholders who were present in the stakeholder consultation meeting. Hence, RINA confirms that the local stakeholder's process was adequate and credible on what regards local stakeholder's consultation.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

Initially PDD for the proposed project activity was webhosted under small scale project activity /**42**/ (period from19/11/2011 to 18/12/2011). However, during validation process and site visit observation dated 27/12/2011, it is noted that some of WEC's (Loc no-119,121,122) are located within 1 km of the project boundary of the proposed project activity from the same PP.

Further these WECs are a part of another registered CDM project activity with reg. No. 4846 registered on 08/07/2011/19/. The capacities of the registered and proposed project activity are 8MW and 14.4MW respectively which together would cross the capacity limit for small scale project activity as proposed by simplified modalities and procedures for small scale project activities/17/. Hence it was confirmed by the validation team that the proposed project activity is deemed to be the de-bundled component of large scale project activity as per the guidelines on assessment of de-bundling for SSC project activities/12/.

Hence, CAR is raised in the DVRP based on the first webhosting of the PDD, under small scale activity and issued to the PP. As a result, PDD was re-webhosted under the large scale activity with the applicable requirements (period 10/02/2012 to 10/03/2012). The PDD version 1.0 of 13/01/2012/01/ 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/NM2H114FXJVZJU1VJ8XY0LVJA8641J/view.html) invited to provide comments during a 30 days period from 10/02/2012 to 10/03/2012.

Comments received for the first webhosting and second webhosting are given in the text box below.

VALIDATION REPORT

GSC comments received for the first webhosting of the PDD under small scale:

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
1.	Babloo		1.DOE to check whether tax holiday is corrected applied in the financial calculations i.e. 10 years strict tax holiday and not payment of any type of tax whatsoever. 2.DOE to check whether the tax benefits (tax shielding) is correctly applied. Also, for tax shielding the corporate tax should be applied. 3.In case MAT is also applied, DOE to check the correctness of MAT calculations. Also, check whether MAT credit is considered correctly. 4.The project cost should be compared with that indicated in the applicable tariff order available at the time of investment decision making. 5.The technology supplier can charge a premium price for the WTGs so that the project becomes additional for CDM benefits. 6. DOE to validate whether a unlevered beta or levered beta would be applicable with proper justification and appropriate reference. An unlevered beta is most appropriate as it leads to a conservative benchmark and hence should be used. 7.Do the validators used by DOE have the	1. Not Applicable 2. Not Applicable 3. Not Applicable 4. The same tariff has been used as per the tariff order 2011 5. Not Applicable 6. Not Applicable 7. Not Applicable	1. DOE has verified the financial calculation of the project activity submitted by the PP and it is deemed appropriate to demonstrate the additionality of the project activity. It is ensured that Project complies with all the relevant parameters as per the CDM requirements. 2. Same as point 1. 3. Same as point 1. 4. Same as point 1. Further, DOE has confirmed that input parameters taken by the PP meets all the CDM requirements. 5. Same as point 1.

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			competency to validate the financial sheets presented by the PP or are they taking help from external financial experts.		6. Same as point 1. 7.DOE has financial expert to validate all the financial parameters involved in the project activity .

GSC comments received for the Second webhosting of the PDD under large scale:

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
1.	Krystopher, krystopher2@gmail.com	12/03/2012	1) DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project. 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. 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. 4) Project owner should show some undertaking letter from bank manager to DoE stating that both	1) The PDD has been revised and the values have been made consistent in the PDD 2) Detailed Project Report and feasibility report have not been prepared for the project or it has been submitted to the bank or other agencies. 3) As already mentioned above that the DPR & FR have not been submitted.	1. DOE has validated the project activity .It is confirmed by the DOE that the proposed project activity is the genuine project. 2. DPR and FSR were not prepared for this project activity. Hence, it is not relevant. However, it is ensured that the proposed

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			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. 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 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. 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. 7) DOE must not entertain this project any more if found the DPR/FR is tamprered 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. 8)Has the PP considered the CDM revenues	4) As already mentioned above that the DPR & FR have not been submitted. 5) As already mentioned above that the DPR & FR have not been submitted. 6) As already mentioned above that the DPR & FR have not been submitted. 7) As already mentioned above that the DPR & FR have not been submitted. 8) Yes PP has considered the cdm revenue. The project is only having the equity component so the query is not applicable to this project. The project is having only the equity part. The decision was taken by board and board had approved the same. The copy of board resolution is already submitted to the DOE.	project activity meets all relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology. 3. Same as point 2. 4. Same as point 2. 5. Same as point 2. 6. Same as point 2. 7. Same as point 2. 8) The explanation and justification provided by the PP is accepted by the team.

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			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 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		

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			collect the same from different sources to do independent evaluation. 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. 10) From DOE side which 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	9) The project is not the second hand and the WECs have been supplied by an Indian supplier Enercon (India) limited. So the query is no applicable to this project. 10) Query no related to PP	09) The comment by GSC is cross examined. Further, DOE has verified financial calculations and relevant documents & confirmed that comment is not relevant. 10) The comment is not relevant. DOE has validated the CDM project activity and confirmed that project activity meets all relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology.

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please. 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 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. 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,	11) WECs are not the part of any bundle project so the query is not applicable. 12) PP has submitted all the supporting documents in respect of the parameters used in the financial analysis.	11. Due care has been taken by the DOE. As per the latest PDD, the project falls under the large scale project activity. The same is explained transparently in the validation report. 12.PP has submitted all the supporting documents .the same has been verified and accepted by the team.

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			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. 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 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	13) PP has defined how the baseline has been identified in the PDD.	13. The baseline is indentified and the same is mentioned transparently in the PDD. It complies with the applied methodology .Hence ,accepted .

Sr. No.	Details of the commenter	Date of the comment	Comment [unedited]	Response by the project participants	Explanation on how account is taken by the DOE
			by fabricating and misinterpreting the project base line and additionality.		

5 VALIDATION OPINION

RINA Services Spa (RINA) has performed validation of the project activity “Clean Energy Project in the State of Tamil Nadu” 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 and No Annex I Party is involved in the project activity. The host party fulfils the participation criteria and has approved the project and authorized the project participant “Vish Wind Infrastructure LLP”. The DNA from India confirmed that the project assists in achieving sustainable development. The same was confirmed through checking the original LoA, No: 4/2/2012-CCC dated 02/02/2012 obtained by the PP from DNA of the India.

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.

By generating the electricity from a wind based power plant with an installed capacity of 14.4 MW, the project results in reduction of CO_2 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 “Clean Energy Project in the State of Tamil Nadu” in India are estimated to be on an average 27,546 tCO_2e per year over the selected 10 years of fixed 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 “ Clean Energy Project in the State of Tamil Nadu” in India, as described in the PDD, version4.0 of 09/08/2012 meets all relevant UNFCCC requirements for the CDM and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM002,” “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0. of 11/05/2012.

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	No Annex I country is involved.
2. The project shall assist non Annex I Parties contributing to the ultimate objective of the UNFCCC.	Kyoto Protocol Art.12.2	No Annex I country is involved.
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	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	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	~~CL2~~
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	No Annex party is involved .OK
8. The participating Annex I Party's assigned amount shall have been calculated and recorded.	CDM Modalities and Procedure §31b	No Annex party is involved .OK
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	No Annex party is involved .OK
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	~~CAR8,CAR9,CAR10~~
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	~~CAR11~~
12. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	CDM Modalities and Procedures §37c	~~CL5~~

Requirement	Reference	Conclusion
13. 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	~~CL6,CL7~~
14. 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	OK
15. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel.	CDM Modalities and Procedures §37e	~~CAR5~~
16. 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	~~CAR5~~
17. 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	~~CAR6~~

TABLE 2 REQUIREMENTS CHECKLIST

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
A Description of Project Activity						
A.1 Title of the project activity						
A.1.1.	Title of the project activity, revision number and date of PDD (section A.1). State the clearly identifiable title of the project activity, the version number and the date of the PDD.	/01/	DR/CC	The title of the project activity is "Clean Energy Project in the State of Tamil Nadu", version no-1.0, dated 13/01/2012. However, PP is requested to submit the copy of LoA received from the DNA of the host country.	~~CAR1~~	**OK**
A.1.2	Does the project comply with the applicable requirements for completing the PDDs?	/01/,/20/, /21/	DR/CC	PP has used the project design document form(CDM-PDD),version 03,dated 28/07/2006 and specific guidelines for completing the project design document(CDM-PDD),version 07,dated 02/08/2008 However, As per the webhosted PDD, the contents page refers to Annex 5, the same is not available in the relevant section of the PDD. Hence, PP is requested to clarify the same. Information in section A.4.1.4 of the PDD is not restricted to one page as per the specific guidelines. Hence, PP is requested to correct the same. Further, any discrepancy regarding the project compliance with respect to the	~~CAR2~~	**OK**

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

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				applicable requirements for completing the PDD is discussed in the relevant sections.		
A.2 Description of the proposed project activity						
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?	/01/,/20/, /21/,/25/, /27/,/34/	DR/CC	The purpose of the project activity is to generate electricity by utilizing the renewable source in the form of wind energy and thus, the generated electricity will be supplied to southern grid (regional grid), which displaces the equivalent amount of electricity from the grid, which is highly dominated by the fossil fuel based power plants. The same has been cross-verified with the physical inspection of site visit, purchase order,. Further , PP is requested to submit the following documents to confirm & assess the design of the project activity, 1. Power purchase agreement (PPA) made with state electricity board 2. PP has submitted the copy of commissioning certificates of 14 WEC's, thus PP is requested to submit the copy of commissioning certificates of the remaining WEC's. 3. PP has submitted the copy of approval order received from the Tamilnadu generation and Distribution Company limited for 17 WEC's. Thus, PP is requested to submit the approval order for remaining also. The project activity will reduce the CO_2 emissions to the amount of 28,148 tCO_2e annually. The project activity involves	~~CL1~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				supply, erection, commissioning and operation of 18 new WEC's of capacity 800 kW. All the WEC's are of Enercon E-53 make.The same was also confirmed during the site visit. The project activity is the green field large scale project activity as per the guidelines on assessment of de-bundling for SSC project activities, though its total capacity is 14.40 MW which is below the stipulated limit of 15MW (as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM). The same is discussed in detail under section A.2. PDD is not transparent on the following as per the specific guidelines for completing the PDD, 1) Total capacity of the project activity 2) Implementation status of the project activity. 3) From the site visit, it is understood that the proposed project activity is the green field project activity; however, the same is not transparent in section A.2. of the PDD 4) Section A.2. of the PDD is not transparent on where the generated electricity will be supplied. 5) The estimated annual electricity generation of the project activity.		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
					~~CAR3~~	
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?	/01/,/20/, /21/	DR/CC	The project activity is the "Green field wind power project activity ". Hence it does not involve any alterations of existing installations.		**OK**
A.2.3	Does the project qualify as a small-scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	/01/,/20/ /21/,/12/ /17/,/19/ /42/,/43/	DR/CC	The proposed project activity does not qualify as small scale CDM project activity, though its total capacity is 14.40 MW which is below the stipulated limit of 15MW(as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM) due to the following , Initially PDD for the proposed project activity was webhosted under small scale project activity (period from19/11/2011 to 18/12/2011). However, During validation process and site visit observation dated 27/12/2011, it is noted that some of WEC's (Loc no-119,121,122) are located within 1 km of the project boundary of the proposed project activity from the same PP. Further these WECs are a part of another registered CDM project activity with reg. No. 4846 registered on 08/07/2011. The capacities of the registered and proposed project activity are 8MW and 14.4MW respectively which together would cross the capacity limit for small scale project activity as proposed by simplified modalities and procedures for small scale		**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				project activities. Hence it was confirmed by the validation team that the proposed project activity is deemed to be the debundled component of large scale project activity as per the guidelines on assessment of de-bundling for SSC project activities. In view of the above, PDD was re-webhosted under the large scale activity with the applicable requirements (period 10/02/2012 to 10/03/2012).		
A.3 Project participants						
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/,/20/, /21/,/16/	DR/CC	The party (host country) involved in the project activity is India; the name of the project participant is "Vish Wind Infrastructure LLP "as per the webhosted PDD. The same has been listed in tabular form in section A.3. of the PDD, this is consistent with the information detailed in the Annex 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/,/20/, /21/,/15/	DR/CC	India is the host country for the project activity. India has ratified the Kyoto Protocol on 26/08/2002 The Designated National Authority (DNA) for India is National Clean Development Mechanism Authority (NCDMA) which is a part of Ministry of Environment and Forests (MoEF), India. India is not part of Annex -1 countries; hence Assigned amounts are not determined.		OK
A.3.3	Have the letters of approval have been issued?	/01/,/20/,	DR/CC	PP is requested to submit the copy of LoA	~~CAR1~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
		/21/		received from the DNA of the host country.		
A.3.4	Do the letters of approval meet the following requirements? (a) LoA confirms that the Party has ratified the Kyoto Protocol; (b) LoA confirms that participation is voluntary (c) The LoA confirms that the project contributes to the sustainable development of the Host Country? (d) The LoA refers to the precise project activity title in the PDD (e) The LoA was received directly by the DNA of the PP In case of doubt regarding the authenticity of the LoAs, describe how it was verified that the letter of approval is authentic.	/01/,/20/, /21/	DR/CC	Please refer to section A.3.3.	~~CAR1~~	**OK**
A.3.5	Have all private/public project participants been authorized by a Party to the Kyoto Protocol?	/01/,/20/, /21/	DR/CC	Please refer to section A.3.3.	~~CAR1~~	**OK**
A.4 Technical description of the project						
A.4.1	Is the project location clearly defined?	/01/,/20/, /21/	DR/CC	The project activity is located at the followjng villages Kanarpatti, Kattarankulam, Ettankulam, Kalakudi, Kuruchikulam, Vagaikulam, Ukkirankottai, Melelanthaikulam in Tirunelveli District, Tamil Nadu. The project location is defined in the section A.4.1. of the PDD along with the geographical co-ordinates . The same is cross- checked with the co-ordinates measured at project site using GPS and found to be mismatching. Thus, PP is requested to clarify the same. PP has mentioned the location no for unique identification for all the WEC's, however PP is requested to substantiate	~~CAR4~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				the same with the supporting evidences. PDD is not transparent on the project site map, thus, PP is requested to submit a legible map. Further, HTSC number is not mentioned in the PDD.		
A.4.2	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/,/20/, /21/,/34/	DR/CC	As per the site visit observation, it is noted that the project activity utilizes the wind energy sources to generate the electricity at 400V and the generated power is stepped up to 33 KV to supply to the grid. Please refer to section A.2.1. Based discussion with the PP ,site visit observation and document review , project activity involves installation, supply, erection, commissioning and operation of 18 WEC's of 0.8 MW rated capacity each, model no-E-53, which are manufactured by Enercon(India) Limited. This technology is manufactured at daman manufacturing unit in India, operated and maintained indigenously, which does not involve any technology transfer from Annex I countries. However, the same is not transparent in the PDD. PDD refers to the state of art technology, thus, PP is requested to submit the supporting evidences for the same. The technical specification of the WEC's involved in the project activity is provided in the section A.4.2. of the PDD, the same is cross-verified with the manufacturer's	~~CAR2,CL1~~ ~~CAR4~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				specification and found to be correct. However, Section A.4.2. of the PDD is not transparent on the following as per the specific guidelines for completing the PDD, 1. Where the electricity will be supplied. 2. Description of how the project activity is environmentally safe and sound technology. 3. Total installed capacity of the project activity. 4. Purpose of the project activity. 5. Annual average electricity generation and emission reduction of the project activity. 6. Type of the project activity. 7. PLF and lifetime are not mentioned in section A.4.3.	~~CAR4~~	
A.4.3	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/,/20/, /21/	DR/CC	As per the webhosted PDD, there is no public funding from Annex I countries for the proposed project activity, however, PP is requested to clarify on the mode of financing for the proposed project activity and substantiate the same with supporting documents.	~~CL2~~	**OK**
B. Application of a 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/,/20/, /21/,/05/ /10/,/22/	DR/CC	As per the section B.1. of the PDD, the PP has used approved methodology, ACM 0002 ." Consolidated baseline and	~~CAR5~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				monitoring methodology for Grid-connected electricity generation from renewable sources" However, the version number and EB report are mentioned as 12.2.0, EB65 respectively. The same is not the latest as per the UNFCCC site .hence, PP is requested to update the same with latest version. The tools used for the project activity are 1. Tool to calculate the emission factor for an electricity system – Version 2.2.1 2. Tool for the demonstration and assessment of additionality – Version 6.0.0. The same is cross-verified with the UNFCCC site and confirmed that these tools are latest available with the UNFCCC site.		
B.2 Applicability criteria of the methodology/tools						
B.2.1	How was it validated that the project activity complies with the applicability criteria?	/01/,/20/, /21/,/05/ /25/,/27/ /34/	DR/CC	PDD refers to version no 12.2.0, the same is not the latest as per the UNFCCC site. Thus, PP is requested to update the same with latest version. As per ACM 0002, version 12.3.0," Consolidated baseline methodology for grid-connected electricity generation from renewable sources" Applicability criteria with respect to the project activity are assessed as follows, This methodology is applicable to grid-	~~CAR5~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				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).Justification: The project activity involves installation of new wind energy converters (WEC's) at a site where there was no renewable power plant was operated prior to the project activity. The generated electricity is supplied to the southern grid(regional grid).The same was confirmed by the physical verification of the project site, purchase order, and approval orders. However, PP is requested to make it transparent in the section B.2. of the PDD. Please refer to section A.2. The methodology is applicable under the following conditions: • 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; Justification: The project activity is the installation of new wind energy converters (WEC's).	~~CL1~~	

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Therefore this condition is applicable to the proposed project activity. The same is confirmed by physical assessment of the project site, purchase order, and approval orders. 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 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. Justification:As the project activity is the green field project activity (new facility).this condition is not applicable to this project activity. In case of hydro power plants:..At least one of the following conditions must apply: 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 power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m2 after the		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				implementation of the project activity; or 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 after the implementation of the project activity. Justification: As the project activity is the wind based project activity, this condition is not relevant to this project activity. Further, the conditions stipulated relevant to the hydropower plants are not applicable. The methodology is not applicable to the following: • Project activities that involve switching from fossil fuels to 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; • Biomass fired power plants; • A hydro power plant2 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. Justification: The project activity involves the installation of wind energy converters (WEC's).Hence, the criteria stipulated for non-applicability of the project activity is not relevant to this project activity. In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is .the		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				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. Justification : As the project activity is the green field project activity (new facility).this condition is not applicable to this project activity. The following issues are identified in this section , i) PDD refers to the paragraph no of the applicability conditions .But no paragraph nos are referred in the methodology .Thus, PP is requested to correct as per the methodology. ii) PP is requested to justify the non applicability conditions of the methodology transparently in the PDD.		
B.2.2	Is the selected baseline one of the baseline(s) described in the methodology and this hence confirms the applicability of the methodology?	/01/,/20/, /21/,/05/ /25/,/27/, /34/	DR/CC	As per the approved methodology , if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following, 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".		**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				The project activity is the green field activity (new facility), which involves generation of electricity through the installation of new wind energy converters(WEC's).The generated electricity is supplied to the southern grid(regional grid) ,which was confirmed by the physical assessment of the project site. However, PP is requested to submit the power purchase agreement made with the state electricity board. Please refer to section A.2.1.	~~CL1~~	
B.3 Project boundary						
B.3.1	Is the project boundary are clearly defined and in accordance with the applied methodology?	/01/,/20/, /21/,/05/	DR/CC/I	As per the approved methodology, the project boundary is defined as "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". Section B.3. of the PDD refers that the project boundary includes the WEC's of project activity, WEC's of non project activity ,metering system , substation and southern grid. The same is mentioned in the schematic diagram of the PDD. It is mentioned in section B.3. of the PDD that project boundary consists of WEC of other customers connected to substation .PP is requested to explain the same	~~CAR6~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Further, green house gases and emission sources included in or excluded from the project boundary are tabulated as per the specific guidelines for completing the PDD. The same is accepted by the validation as the project activity is only the wind based power project which does not produce any emissions in the project scenario. However, the diagram refers to 10 no's of WEC in the project activity, the same is not consistent with the section A.2.of the PDD. Further PP is requested to clarify the term cluster meter.		
B.3.2	What are the project's system boundaries (components and facilities used to mitigate GHGs)?	/01/,/20/, /21/,/05/	DR/CC/I	The following system boundaries (components and facilities) are covered in the project activity to mitigate GHGs, The WEC's of the project activity, WEC's of the non project activity, metering system, substation, connected grid(southern grid) . Please refer to section B.3.1.	~~CAR6~~	**OK**
B.3.3	Which sources are identified for the project? Does the identified project boundary cover all possible sources linked to the project activity?	/01/,/20/, /21/,/05/	DR/CC/I	As it is the Clean Wind Energy project activity, No GHG sources are identified in project scenario and CO_2 emissions from the net electricity displaced in the grid is considered in the baseline scenario, The same reflects in the project boundary also. The identified emission sources and green house gases are tabulated as per the specific guidelines in the section B.3. of the PDD.	~~CAR6~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Please refer to section B.3.1.		
B.3.4	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/,/20/, /21/,/05/	DR/CC/I	The validation did not reveal any other emission sources, not foreseen by the methodologies that may question the applicability of the methodology and which may contribute to more than 1% to the estimated emission reductions of the project as this is only a wind power project.		OK
B.4 Baseline scenario identification						
B.4.1	Which baseline scenarios have been identified? Is the list of the baseline scenarios complete?	/01/,/20/, /21/,/05/	DR/CC/I	As per the approved methodology , if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following, 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". The same has been considered by the PP for the proposed project activity. Since the methodology defines the baseline, no further analysis is required as per the VVM para 105.		OK
B.4.2	How have the other baseline scenarios been eliminated in order to determine the baseline?	/01/,/20/, /21/,/05/	DR/CC/I	The baseline for the project activity is well prescribed by the methodology for the grid connected power plants and as per the para 105 of VVM. Hence, no identification is required.		OK

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Please refer to section B.4.1.		
B.4.3	What is the baseline scenario? Is the determination of the baseline scenario in accordance with the guidance in the methodology?	/01/,/20/, /21/,/05/	DR/CC/I	As stated in section B.4.1 above the baseline scenario 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 into the grid. It has been determined in accordance with the guidance in applied simplified baseline methodology. Please refer to section B.4.1..		OK
B.4.4	Has the baseline scenario been determined using conservative assumptions? Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	/01/,/20/, /21/,/05/	DR/CC/I	The values for Emission factor (EF) has been taken from Central electricity authority (CEA) data base, version 6, March, 2011 from Ministry of power, India. However, it is noted that the version of CEA data base used in the project activity was outdated at the time of submission of the PDD to DOE .hence, PP is requested to follow the latest version of the CEA data base from the Ministry of power, India. Further, the value of data used to determine the baseline is not mentioned as required by the guidelines for completing the PDD.	~~CAR7~~	**OK**
B.5 Additionality determination						
B.5.1	What tool does the project use to assess additionality? Is this in line with the methodology?	/01/,/20/, /21/,/05/ /22/	DR/CC	As per the approved methodology, the latest version of the "Tool for the demonstration and assessment of the additionality can be used to demonstrate the additionality.		OK

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				The tool used by the PP is latest version (6.0.0) available with the UNFCCC site .Therefore, it is line with the methodology.		
B.5.2	What is the project additionality mainly based on?	/01/,/20/, /21/,/05/ /22/	DR/CC	PP has used the investment analysis to demonstrate the additionality of the project activity as per the latest version of the tool for demonstration and assessment of the additionality. The bench mark analysis is used under investment barrier analysis to demonstrate the additionality of the proposed project activity. The same is in line with guidance on the assessment of investment analysis. Further, PP has followed common practice analysis also as per the methodology.		OK
B.5.3	Prior consideration of CDM					
B.5.3.1	What is the starting date of the proposed project activity?	/01/,/20/, /21/,/06/ /08/,/09/ /36/,/38/ /45/,/46/	DR/CC/I	As per the webhosted PDD, the starting date of the project activity is 30/06/2011, is the earliest date on which the placement of purchase orders was made for WEC's. RINA confirms that the same is as per the glossary of CDM terms.		OK
B.5.3.2	What is the evidence for serious consideration of CDM prior to the time of decision to proceed with the project activity?	/01/,/20/, /21/,/06/ /08/,/09/ /36/,/38/ /45/,/46/	DR/CC/I	As the start date of the project activity is 30/06/2011 which is after 02/08/08, the project activity comes under type "proposed project activities with a start date from 02/08/2008" as per the guidelines on demonstration and assessment of prior consideration of CDM, version 04 dated 15/07/2011. Accordingly PP needs to inform the host party DNA and UNFCCC in writing on the commencement of the project activity and of their intention to seek CDM status within six months from the project activity start date.		**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				As per the PDD, It is noted that CDM notification has been sent to UNFCCC and to DNA, dated 14/09/2011 i.e., within the six months of the start date of the project activity, The same is also reflected in the UNFCCC website on having received on 15/09/2011, the copy of mail intimation and acknowledgement mail from UNFCCC, DNA also confirms on having sent the notification on 15/09/2011. Thus , the project activity complies with the guidance on the demonstration and assessment of prior consideration of the CDM ", annex-13 of EB-62 PDD was initially webhosted under small scale (period from19/11/2011 to 18/12/2011).However, during the validation process DOE indentified that the project is the debundled component of the large scale project activity. Hence, the PDD was re-webhosted under large scale activity (period 10/02/2012 to 10/03/2012). However PP is requested to clarify if they have Informed UNFCCC on the re-webhosting due change in the scale. If yes, kindly provide copy of the same.	~~CL3~~	
B.5.3.3	What initiatives were taken by the project participants from the starting date of the project activity to the start of validation in parallel with the physical implementation of the project activity?	/01/,/20/, /21/,/06/ /08/,/09/ /36/,/38/ /45/,/46/	DR/CC/I	As the project activity start date is after 02/08/2008, this section is not applicable as per the guidelines on the demonstration and assessment of prior consideration of the CDM", as available on the UNFCCC website.		OK
B.5.3.4	Does the timeline of the project confirm that continuous actions in parallel with the implementation were taken to secure CDM status?	/01/,/20/, /21/,/06/ /08/,/09/ /36/,/38/	DR/CC/I	This section is not relevant for the project activity as the start date is after 02/08/2008. Please refer to section B.5.3.4.		OK

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
		/45/,/46/				
B.5.4	Investment analysis					
B.5.4.1	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 revenue from the sale of certified emission reductions?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	The step wise approach has been opted to demonstrate the additionality of the project activity as per the latest version of tool for demonstration and assessment of additionality. As per the step 1 , PP has done the Identification of alternatives to the project activity consistent with current laws and Regulations. However, PP has referred the methodology ACM 0002, version 12.2.0.the same is not correct as per the UNFCCC site. Thus , PP is requested to follow the correct version of methodology as per the UNFCCC site, As per the step 2 of the tool .PP has opted for the investment analysis As per the sub step 2a& 2b, PP has determined the appropriate analysis method and thereby selecting the option III owing to the following reasons. The project generates revenue from the sale of electricity to State Utility hence simple cost analysis is not applicable. The alternative to the project activity is supply of electricity from the grid hence Investment comparison analysis is not appropriate in accordance with EB -62,	~~CAR8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Annexure 5 Thus, PP has selected the benchmark analysis for the investment analysis.		
B.5.4.2	What the financial indicator is used?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Financial indicator used by the PP is equity IRR. CL: 1 .PP is requested to provide the actual value of all the parameters for cross-checking. CAR : PP is requested to explain the following , 1. The O&M calculations are not correct .escalation in O&M is considered from year 2012 -13 onwards, which is not correct. 2. In the IRR sheet, it is mentioned that O&M cost is 6.17 lacs per WEC whereas the offer letter mentions O&M cost as 6.2 lacs per WEC. 3. O&M calculation is not correct. Thus , PP is requested to explain the same. 4. In the calculation of accelerated depreciation transfer of development right charges and land and transportation charges are deducted and in book depreciation only land and transportation charges have been deducted from total project cost. Thus, PP is requested to explain the same. 5.O&M cost base year is 1.3% of capital cost; however, ER sheet is not transparent	~~CL4, CAR8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				on which year is taken as base year in calculations. 6.PP is requested to explain on how the O&M calculation is done. 7. Under Working capital requirements, PDD mentions as 30 days for receivables, but The same is not transparent on how the value is calculated in the excel sheet. Further, PP is requested to mention the calculation of the same in the PDD . 8. PP is requested to explain the applicable tax criteria between income tax and MAT with respect to the project activity taken in the assumption sheet. 9.. 1.. 11..It is identified from the land documents that some are on Rs.5000 stamp paper and others on Rs.10000.Thus ,PP is requested to clarify on why this is so. Since the deed is for 2.5 lacs in all. 12.. For some of the land deed documents (VWIL-V 52), date is not mentioned. Thus, PP is requested to clarify the same.		
B.5.4.3	Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the Host Country?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Depreciation is taken in to account in the income tax calculations and for 20 yrs of the lifetime of the project activity and is as per the normal accounting practice in the host country (India). However the PP is requested to provide the reference year of Income Tax Act on which the tax calculation has been done.	~~CAR8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
B.5.4.4	Is the time period of the investment analysis and operating time of the project realistic? Has salvage value been taken into account? Is the working capital returned in the last year of the operation?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Investment analysis is done for the period of 20 years, i.e the lifetime of the project activity. The project activity will be depreciated up to the 90 % of the project cost as the land is not considered as depreciable item. Thus, the 10 % of remaining value (difference between the total cost and land) is considered as the salvage value in the project activity. Working capital has been returned in the last year of operation. .		OK
B.5.4.5	Cross-check of main parameters used in the financial analysis: electricity generation, electricity tariff, investment costs, operating and maintenance costs, taxes, other costs. The main parameters can be changed for the different project category.	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	CL PP is requested to submit the supporting documents and clarification for the following: i)O& M charges ii)Escalation in O&M expenses. iii) Details of actual costs incurred to date-copies of invoices, bank statements etc. iv). Copy of the audited accounts of the PPs from the year of decision making. v) Support for all the tax assumptions used. vi) PP is requested to provide financials with actual cost. vii) Supporting document for the insurance cost considered to be provided. viii) As per the investment analysis sheet, PP has considered 6.17lac as the O&M cost and is sourced from the Enercon's offer. However as per the document submitted by PP, O&M cost is 6.20lacs per WEC per annum. ix) PP is requested to submit the actual	~~CL4& CAR8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				insurance. x)PP is requested to submit the CA certificate to support the "means of finance "that is own source. xi) PP is requested to provide links for all tax rates xii) Supporting document for decision making 1) PP is requested to make it transparent on the date of decision making in the PDD... 2). 4). . 5). 7). PP has taken the no of operating hours based on the previous year in the calculation of O&M expenses, Thus, the formula for O&M cost used by the PP is not correct.8). 9)PP is requested to provide the basis for the working capital assessment 11).		
B.5.4.6	Sensitivity analysis: have the key parameters contributing to more than 20% of the revenue/costs during operating or implementation been identified?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	The key parameters identified for the sensitivity analysis includes the Capital cost, Plant load factor, O&M charges,. PP has carried out sensitivity for ±10%. .However, Sensitivity on tariff is not mentioned in the IRR. PP is requested to explain the same.. The validation team verified sensitivity analysis that has been conducted on the	~~CAR8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				parameters contributing more than 20% of either total project costs or total project revenue. The same is found to be correct and acceptable by the validation team. The spreadsheet does not contain the sensitivity analysis for tariff and the PP does not explain clearly why the project cost will not reduce by 36.63% or the tariff will not increase by 5.83%.Thus, PP is requested to explain the same.		
B.5.4.7	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/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	PP has carried out sensitivity for ±10% and is reasonable PP is requested to justify the sensitivity range based on actual value of parameters.	~~CAR8~~	**OK**
B.5.4.8	Have the key parameters been varied to reach the benchmark and the likelihood of this happening been justified to be small?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	The PP has selected the key parameters that constitute more than 20% of either total project costs or total project revenues and it is line with latest version of Guidance on the Assessment of Investment Analysis, Even with the 10% (+, -) variation in the parameters do not result in higher IRR than the selected benchmark, in the absence of CDM revenue. PP has assessed the variations of IRR for each parameter and checked the points where it reaches the bench mark. PP has given justification for each parameter on why the every variation is unlikely to happen. However, in the justification for tariff, PP has give details of REC and however, PP	~~CAR8 & CAR9~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				is requested to explain on why the preferential tariff is considered. It is mentioned in PDD that IRR crosses benchmark at PLF of 42.22% and it is mentioned that it is unrealistic. However no justification is provided for the same. . The return on equity value has been taken from the default values provided in the latest version of guidelines on the assessment of the investment analysis, however, PP is requested to calculate the same based on actual values and then compare with the default values so as to be conservative. The RBI document for the inflation rate is after the decision making date. Hence, PP is requested to justify the appropriateness of this benchmark		
B.5.5 Barrier analysis						
B.5.5.1	Are the barriers identified complimentary to a potential investment analysis?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	PP has opted only for the investment barrier analysis to demonstrate the additionality.		OK
B.5.5.2	How were the investment barriers assessed to be real? How does CDM alleviate the investment barriers?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Please refer to section B.5.5.1.		OK
B.5.5.3	Is the project activity prevented by the investment barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Please refer to section B.5.5.1.		OK
B.5.5.4	How were the technological barriers assessed to be real? How does CDM alleviate the technological	/01/,/20/, /21/,/05/	DR/CC	This is not applicable as the PP has not opted for technological barriers in		OK

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	barriers?	/22/,/03/ /40/,/32/		demonstrating the additionality		
B.5.5.5	Is the project activity prevented by the technological barriers and is at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	This is not applicable as the PP has not opted for technological barriers in demonstrating the additionality		OK
B.5.5.6	How were the barriers due to prevailing practise assessed to be real? How does CDM alleviate the barriers due to prevailing practice?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Not applicable as the PP has not opted for barriers due to prevailing practice in demonstrating the additionality.		OK
B.5.5.7	Is the project activity prevented by the barriers due to prevailing practice and is at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	Not applicable as the PP has not opted for barriers due to prevailing practice in demonstrating the additionality.		OK
B.5.5.8	How were the other barriers assessed to be real? How does CDM alleviate the other barriers?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	PP has opted only for the investment barrier analysis to demonstrate the additionality, thus this is not applicable.		OK
B.5.5.9	Is the project activity prevented by the other barriers and is at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/	DR/CC	PP has opted only for the investment barrier analysis to demonstrate the additionality, thus this section is not applicable.		OK
B.5.6 Common practice analysis						
B.5.6.1	What are the geographical scope and scope of technology of the common practice analysis?	/01/,/20/, /21/,/05/ /22/,/03/ /40/,/32/ /23/	DR/CC	PP has not followed latest guidelines on common practice, version 01.0,dated 29/09/2011. Further it is noted that , PP has used the Indian wind power directory, 2009. The same is not the latest available at the time of decision making. Hence, PP is requested to use the latest version available at the time of decision making. PP has compared the projects more than 15MW .however, as per the guidelines +/-	~~CAR10~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				50% of the capacity needs to be compared. It is noted that in the PDD under the common practice analysis, the link for project listed at serial no 7 and 8 are not UNFCCC links. Thus, PP is requested to explain the same.		
B.5.6.2	How many similar non-CDM-projects exist in the region within the scope?	/01/,/20/, /21/,/05/ /22/,03/ /40/,/32/ /23/	DR/CC	PDD is not transparent on the how many similar non-CDM projects exist in the region with the scope. Further, PP is requested to provide the detailed common practice analysis in the excel sheet.	~~CAR10~~	**OK**
B.5.6.3	How were possible essential distinctions between the project activity and similar activities assessed?	/01/,/20/, /21/,/05/ /22/,03/ /40/,/32/ /23/	DR/CC	The following discrepancies are indentified, 1. The web links mentioned in the PDD is not working.Thus,PP is requested to clarify the same. 2. PP is requested to submit the latest supporting documents to substantiate the common practice analysis.	~~CAR10~~	**OK**
B.5.6.4	What is the data source(s) used for the common practice analysis?	/01/,/20/, /21/,/05/ /22/,03/ /40/,/32/ /23/	DR/CC	PP has used the Indian Wind Power Directory, 9th edition published in year 2009.However, , PP is requested to provide the latest data, sources and references available at the time of decision making.(board resolution dated 20/05/2011)	~~CAR10~~	**OK**
B.5.7 Conclusion on the additionality assessment						
B.5.7.1	What is the conclusion with regard to the additionality of the project activity?	/01/,/20/, /21/,/05/ /22/,03/ /40/,/32/ /23/	DR/CC	. The conclusion on the additionality can be arrived at only on closure of the CARs / CLs in section B.5.	~~CAR8,CAR9~~ ~~CAR10~~ ~~CL4~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				Please refer the comment in Section B.5.		
B.6 Calculation of GHG emission reductions						
B.6.1 Baseline emissions						
B.6.1.1	Are the calculations documented according to the approved methodology and in a complete and transparent manner?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	As per the approved methodology , ACM 0002 , the emission reductions are calculated as below, $ER_y = BE_y – PE_y$ Baseline emissions(BE_y) : $BE_y = EG_{PJ, y} * EF_{grid, CM, y}$ BE_y = Baseline emissions $EG_{PJ,y}$ = Quantity of net electricity generation $EF_{grid,CM,y}$ = Combined margin CO2 emission factor for grid connected power generation. As the project activity falls under the green field renewable energy activity , $EG_{PJ,y} = EG_{facility,y}$ $EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity. $EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid The quantity of net electricity generation is	~~CAR7~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				calculated considering the PLF of 24.33%. The same is accepted by the validation as it complies with the guidelines for the reporting and validation of Plant Load Factors. Further, it is noted that third approval provided by the True Wind International Certification India, provides the lots of consultancy in field of wind energy and other renewable energy. The same is cross checked with the third party's official site and found to be correct & authentic. Hence, the PLF value taken by the PP is accepted by the validation team. Emission factor is calculated based on latest version of the tool to calculate the emission factor for an electricity system. However, the generation weighted OM is not calculated .PP is requested to explain the same. The CEA data base version 6, March, 2011 is used for calculating the combined margin emission factor. The same is not the latest version available at the time of submission of PDD to DOE for validation.. Please refer to section B.4.4. .		
B.6.1.2	Have conservative assumptions been used when calculating the baseline emissions and are the uncertainty estimates properly addressed?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	The assumptions made by PP for calculating baseline emission are as below:	~~CAR7~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				1. The proposed capacity of the project is 14.4. MW which has been confirmed by the physical verification of WTGs during the site visit. 2. The combined emission factor of southern grid is taken 0.91717 tCO_2/MW for calculating emission reduction which is correct and calculated as per the tool "Tool to calculate the emission factor for an electricity system" version 02.2.0, Annex 12 of EB 61. Further, PP has used CO_2 baseline database version 06 published by Central Electricity Authority (CEA), Government of India However, it is noted that the version of CEA data base used in the project activity was outdated at the time of submission of the PDD to DOE .hence, PP is requested to follow the latest version of the CEA data base from the Ministry of power, India. 3. PP has taken the 24.33 % of PLF based on third party document . the same is accepted by the team, as it complies with the guidelines. Please refer to section B.6.1.1.		
B.6.2 Project emissions						
B.6.2.1	Are the calculations documented according to the approved methodology and in a complete and transparent manner?	/01/,/20/, /21/,/02/ /05/,/13/	DR/CC	The project emissions for the proposed project activity, PEy = 0, as it is the wind power based project activity and the same		**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
		/14/,/32/		is accepted since it is as per the latest version of methodology. However, The version no of the methodology is wrongly mentioned in the section B.6. of the PDD	~~CAR5~~	
B.6.2.2	Have conservative assumptions been used when calculating the project emissions and are the uncertainty estimates properly addressed?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	Please refer to section B.6.2.1.	~~CAR5~~	**OK**
B.6.3 Leakage						
B.6.3.1	Are the calculations documented according to the approved methodology and in a complete and transparent manner?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	From the site visit, it is confirmed that no energy equipment is transferred from another activity. Thus , The leakage emissions for the proposed project activity, LEy = 0 Hence, it is not applicable. However, PDD refers to version no 12.2.0, the same is not the latest as per the UNFCCC site. Thus, PP is requested to update the same with latest version. PDD states that there is no leakage considered for emission factor. PP is requested to explain the same.	~~CAR5 & CAR7~~	**OK**
B.6.3.2	Have conservative assumptions been used when calculating the leakage and are the uncertainty estimates properly addressed?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	Please refer to section 6.3.1.	~~CAR5~~	**OK**
B.6.4 Emission reductions						
B.6.4.1	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/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	The methodology has been correctly applied to calculate the emission reductions. However, PDD refers to version no 12.2.0, the same is not the latest as per the UNFCCC site. Thus, PP is requested to update the same with latest version.	~~CAR5~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
B.6.5 Data and parameters that are available at validation and that are not monitored						
B.6.5.1	How were the parameters available at validation verified?	/01/,/20/, /21/,/02/ /05/,/13/ /14/,/32/	DR/CC	As per the webhosted PDD, 1.$EF_{CO2,\ grid,\ y}$ or EF_{CO2y} : CO_2 emission factor of the grid in year y (t CO_2/MWh)-0.91717 2.EF_{OM} -Operating margin CO_2 emission factor in year y (tCO_2/MWh) - 0.968 3.EF_{BM} -Build margin CO_2 emission factor in year y (tCO_2/MWh) - 0.763 The above parameters have been cross-checked with CEA data base and found that PP has used the outdated version of data. Thus, PP is requested to follow the latest available with the CEA. Please refer to section B.4.4.	~~CAR7~~	**OK**
B.7 Monitoring plan						
B.7.1 Data and parameters monitored						
B.7.1.1	Does the monitoring plan described in the PDD comply with the requirements of the methodology?	/01/,/20/, /21/,/05/	DR/CC/I	The monitoring plan is described in the section B.7.2 of the PDD. Any non-compliance in the monitoring plan with respect to the requirements of the methodology is discussed in the relevant sections. Please refer section B 7.1.2, B 7.1.3 below	~~CAR11~~	**OK**
B.7.1.2	Does the monitoring plan contain all necessary parameters and are they clearly described?	/01/,/20/, /21/,/05/	DR/CC/I	$EG_{BL,\ y}$ - Net Electricity Exported to the grid by the project activity. $EG_{Export,y}$ -Electricity exported by project activity to grid recorded at 33kV metering point.	~~CAR 11~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				$EG_{Import,y}$ -Electricity imported by project activity from the grid recorded at 33kV metering point. T_E - Line loss between the metering point at 33 kV metering points of project activity and the metering point at 110 kV at the ENERCON pooling substation. PP has provided the single line diagram of the metering arrangement for the proposed project activity. As per the webhosted PDD, the reading is taken in presence of PP representative whereas it is mentioned in the PDD that PP does not have role to play. PP is requested to explain the same.		
B.7.1.3	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/,/20/, /21/,/05/	DR/CC/I	As per the discussion with the PP and the site visit observation, it is noted that monthly statement of electricity generation is prepared by TNEB through monitoring and recording the TNEB meter located nearer to the individual WEC's , Main meter & check meter located at Enercon pooling station. The recording of these meters are done by TNEB on monthly basis in the presence of representatives from the PP The main purpose of the main & check meter located at enercon pooling station is to calculate the line losses, which is also included in the TNEB statement. Bi-directional tri-vector energy meter-(TNEB meter at 33kV line) measures the	~~CAR11~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				net electricity (Export-import) supplied to the grid by the individual WEC's. Accuracy of the meter -0.5s Main and check meter –Measures the Net electricity supplied by the WEC's of project activity and non-project activity at the enercon pooling station. Accuracy of the meter -0.2s. The LCS controller meter located in the individual WEC's measures the net electricity generated from the WEC's .Any malfunction in the LCS meter reading will trip the WEC's. The controller meter is auto calibrated. Hence, it does not require any calibration. . The following discrepancies are identified based on site visit observation and discussion with the PP , 1. Section B.7.1. of the PDD refers to the cluster meter and at one location 2 wind turbines of the same investors are connected to a single cluster meter , this is contradicting with the procedure followed at site, thus PP is requested to clarify the same. 2. Single Line Diagram mentioned in the PDD is not correct as per the monitoring procedure followed at the project activity Thus,PP is requested to clarify the same. 3..PDD is not transparent on the calibration frequency of the meters.		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
B.7.1.4	Is the monitoring frequency adequate for all monitoring parameters? Is it in line with the monitoring methodology?	/01/,/20/, /21/,/05/	DR/CC/I	PDD is not transparent on the monitoring frequency of the following monitoring parameters. 1.The net electricity (Export-import) supplied to the grid by the individual WEC's. 2.The net electricity supplied by the WEC's of project activity and non-project activity at the enercon pooling station.(Main and check meter) PP is requested to submit the copy of JMR received from the Tamilnadu electricity board.	~~CAR11 & CL5~~	**OK**
B.7.1.5	Is the recording frequency adequate for all monitoring parameters? Is it in line with the monitoring methodology?	/01/,/20/, /21/,/05/	DR/CC/I	1.The net electricity (Export-import) supplied to the grid by the individual WEC's. Reporting frequency-Monthly in the presence of representatives of TNEB and the Project Participant. Recording : Daily by PP. (recorded both in soft & hard copy) 2.The net electricity supplied by the WEC's of project activity and non-project activity at the enercon pooling station.(Main and check meter) Recording frequency-Monthly in the presence of representatives of TNEB and the Project Participant. Thus, the recording frequency is adequate for all the monitoring parameters and the same is in line with the monitoring methodology.		OK
B.7.2 Monitoring of sustainable development indicators/environmental impacts						
B.7.2.1	Is the monitoring of sustainable development indicators/ environmental impacts warranted by	/01/,/20/, /21/,/05/	DR/CC	No, Monitoring of sustainable indicators are not legislated by the host country of the	~~CAR1~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	legislation in the host country?	/11/		project activity. However, PP is requested to submit the LoA obtained from the DNA of the host country.		
B.7.2.2	Does the monitoring plan provide for the collection and archiving of relevant data concerning environmental, social and economic impacts?	/01/,/20/, /21/,/05/ /11/	DR/CC	Please refer to section B.7.2.1.	~~CAR1~~	**OK**
B.7.2.3	Are the sustainable development indicators in line with stated national priorities in the host country?	/01/,/20/, /21/,/05/ /11/	DR/CC	The contribution towards sustainable development by project activity is explained under the title of social well being ,economic well being, environment well being , and technological well being in section A,2, of the PDD. The same has been cross-checked with the official web site of National CDM authority under Ministry of Environment and Forests(MoEF) , India and it is found to be inline with sustainable indicators derived by the host country (India) Please refer to section B.7.2.1	~~CAR1~~	**OK**
B.7.3 Management, quality assurance and quality control						
B.7.3.1	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?	/01/,/20/, /21/,/05/	DR/CC	The monitoring plan is described in the section B.7.2 of the PDD. As per the PDD, cluster meters are located at individual WEC's to monitor the net electricity supplied to the grid, Main and check meter are located at the enercon pool station to monitor the net electricity supplied to grid by both the WEC's from project activity and non-project activity.TNEB records the net electricity supplied to grid on monthly basis in the presence of the representatives from PP. PP has explained the apportioning procedure in the section B.7.2. of the	~~CAR11~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				PDD. However, PP is requested to substantiate with the documents for the sources and methods used in the apportioning procedure. Please refer to section B.7.1.		
B.7.3.2	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/,/20/, /21/,/05/	DR/CC	PDD is not transparent on the record handling, storage area of records and documentation for performance evaluation, though it is available.	~~CAR11~~	**OK**
B.7.3.3	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/,/20/, /21/,/05/	DR/CC	PDD is not transparent on 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.	~~CAR11~~	**OK**
B.7.3.4	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/,/20/, /21/,/05/	DR/CC	All the 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		OK
C. Duration of the project activity and crediting period.						
C.1 Start date of project activity						
C.1.1	What is the expected starting date of the project activity and how has been determined? When was the first construction activity?	/01/,/20/, /21/,/34/	DR/CC	As per the webhosted PDD, the starting date of the project activity is 30/06/2011, is the earliest date on which the placement of purchase orders was made for WEC's. RINA confirms that the same is as per the glossary of CDM terms.		OK
C.1.2	What is the expected operational lifetime of the project activity? Is it reasonable?	/01/,/20/, /21/,/34/	DR/CC	As per the webhosted PDD, The operational lifetime of the project activity is 20 years. However, PP is requested to substantiate	~~CL6~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				the same with the supporting evidences		
C.2 Start date of crediting period						
C.2.1	What is the expected starting date of the proposed project activity? Does the crediting period start eight week after the request for registration?	/01/,/20/, /21/	DR/CC	As per the webhosted PDD, start date of crediting period is 01/10/2012 or date of registration of project with UNFCCC whichever is later.		OK
C.2.2	What is the length of the crediting period? Is it clearly defined and reasonable?	/01/,/20/, /21/	DR/CC	The project proponent has selected the fixed crediting period of 10 years for the project activity		OK
D. Environmental Impact						
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/,/20/, /21/,/44/	DR/CC	As per the Schedule 1 of Ministry of Environment and Forests (Government of India) notification dated January 27, 1994 and EIA Notification (S.O 1533) dated 14th September 2006, The proposed project activity does not need Environmental Impact Assessment (EIA) . The same has been cross checked with the website provided by the Ministry of Environment and forests, Government of India. and found to be correct. However, PP is requested to provide the details on the environmental analysis of the project activity along with the transboundry impacts due to the project activity as per the CDM modalities and procedures Para 37(C) dated 30/03/2006. Further, PP is requested to clarify on how the solid and hazardous waste from windmills are disposed.	~~CL7~~	**OK**
D.1.3	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	/01/,/20/, /21/,/44/	DR/CC	No, it is not required for this project as per the latest legislations of Ministry of Environment & Forests, Government of		OK

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	the approval contain any conditions that need monitoring?			India.		
D.1.4	Is it the project in line with the current environmental legislation in the host Country?	/01/,/20/, /21/,/44/	DR/CC	Yes, the project is in line with the current environmental legislation in the host Country i.e. India. PP is requested to submit all applicable legal and statutory approvals.	~~CL7~~	**OK**
E. 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/,/20/, /21/,/35/ /37/,/47/	DR/CC/I	As per the webhosted PDD, The local stakeholders have been invited through the invitation letter published in the local newspaper on 04/10/2011 to attend the stakeholders meeting conducted on 21/10/2011 This confirms that the stakeholders were invited by the PP prior to the publication of the PDD to the UNFCCC website. During site visit, some of the local stake holders, who attended the local stakeholders meeting were interviewed to cross-check the actual conduct of the meeting , it was confirmed from the interview that stakeholders meeting invitations were delivered in person and meeting was conducted as mentioned in the PDD, and no adverse comments were received from the stakeholders , further , they have expressed the positive comments about the project activity PP is requested to clarify on all the mode of invitation for the stakeholders meeting and include the same in the PDD.	~~CL8~~	**OK**
E.1.2	Area the stakeholders invited be considered as	/01/,/20/,	DR/CC/I	The invited stakeholders for the proposed	~~CL8~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	regards commenting the proposed project activity?	/21/,/35/ /37/,/47/		project activity consists of 1.Mr.Arumugam(Retd.DRO,Tirunelveli), 2.Mr. Rangarajan (V.A.O, Kanarpatti village) 3.Mr.O.N.M.KhajaMohideen(A.E. Distribution/Rural TANGEDCO.), 4.Ms.Anushree Mishra(Asst. Manager, CDM Dept. Enercon (India) Ltd.) 5. Mr. S. Sivalingam (Commercial Inspector, TANGEDCO Sub-Station, Manur. 6. Mr. D. Muthuraman (Enercon (India) ltd., However, PP is requested to make it transparent in the PDD on the actual number of people who attended stakeholders meeting.		
E.1.3	Is the summary of the comments received from the stakeholders, provided in the PDD complete?	/01/,/20/, /21/,/35/ /37/,/47/	DR/CC/I	As per the PDD, Only the positive comments were received during the meeting with the local stakeholders and the summary of the same is provided in the Section E.2. of the PDD.		OK
E.1.4	Has due account been taken by the project participants of any stakeholder comments received?	/01/,/20/, /21/,/35/ /37/,/47/	DR/CC/I	As per the PDD and interview with the stakeholders, *No* negative comments were received during the meeting with the local stakeholders, hence this is not applicable.		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/,/20/, /21/,/35/ /37/,/47/	DR/CC/I	No, It is not required as per local regulations/laws 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
CAR 1 1. PP is requested to submit the copy of LoA received from the DNA of the host country.	A.1.1,A.3.3.,A.3.4. A.3.5., B.7.2.1. to B.7.2.3.	1. LoA has been received and the same is submitted to DOE.	1st Response : PP has submitted the HCA, reference no :4/2/2012-CCC, dated 2/02/2012 obtained from the DNA of the host country which confirms the following , The government of india of has ratifed the kyoto protocol in August 2002. Proposed CDM project activity is the volutary participation. The project contributed to sustainable development in India. Thus , CAR1 is closed.
CAR2 1. As per the webhosted PDD, the contents page refers to Annex 5, the same is not available in the relevant section of the PDD. Hence, PP is requested to clarify the same. 2. Information in section A.4.1.4 of the PDD is not restricted to one page as per the specific guidelines. Hence, PP is requested to correct the same.	A.1.2.	1. Annex 5 has been removed from the PDD. 2. Section A.4.1.4 has been shifted to next page of the PDD. Response 2: Section A.4.1.4 has been shifted to the separate page of the PDD. Response 3: In the revised PDD, Annex 5 has been changed to Appendix 1.	1st Response : Annex 5 from the contents page of the PDD is removed in the revised PDD. In revised PDD, the information in section A.4.1.4. of the PDD is not restricted to one page as per the specific guidelines. Hence, PP is requested to correct the same. PDD 's version and date is not changed . Thus , requested correction for the same. Referring to the above, CAR2 is not closed. 2nd Response : Due to the number of WTG's it is

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			exceeded one page .the same can be accepted as it contains the necessary information. Thus, this point is closed. As per the webhosted PDD, the contents page refers to Annex 5, the same does not comply with the specific guidelines for completing the PDD. Due to the point 2, CAR2 is not closed. 3rd Response : 1.Contents page now refers to Appendix only in the revised PDD.Thus, it is found to be inline with the specific guidlines . Hence, CAR2 is closed now.
CAR3 1. PDD is not transparent on the following as per the specific guidelines for completing the PDD, i) Total capacity of the project activity ii) Implementation status of the project activity. iii) From the site visit, it is understood that the proposed project activity is the green field project activity; however, the same is not transparent in section A.2. of the PDD.	A.2.1.,B.5.3. C.1.1.	1. PP has made following changes in the PDD as per the guideline for completing the PDD. i). Project total capacity is 14.4 MW. The same has been incorporated in the revised PDD. ii) Implementation status of the project activity has been inserted in the PDD iii) The project is Greenfield project and the same has been mentioned in the revised PDD under section A.2. iv) The electricity generated by project activity will be pooled to Tamil Nadu Generation & Distribution Corporation Ltd. The same has been included in the PDD	1st Response : The total capacity of the project activity is mentioned now in the PDD. The implementation status of the project activity is not mentioned in section A.2. of the PDD. Revised PDD is updated with the type of the project activity .that is project activity is green field activitiy . As per the revised PDD, the generated electricity will be pooled to Tamil Nadu Generation & Distribution Corporation Ltd, which is a part of southern grid as verified

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
iv) Section A.2. of the PDD is not transparent on where the generated electricity will be supplied. v) The estimated annual electricity generation of the project activity.		under section A.2. v) The estimated annual electricity generation of the project activity is also included in the PDD under section A.2. Response 2: 2. The project implementaion status has been incorporated in the form of table in section A.2 of the PDD. 5. PP has submitted the revised ER sheet to the DOE.Response 3: 1. The Implementation staus table has been revised and all the HTSC no. and commissioning date has been incorporated. 5. PP has mentioned the unit of the estimated electricity for the project activity both in the PDD & ER sheet. Response 4: 2 The justification and explanation has been revised in the PDD & ER sheet.	from the official website of Central Electricity Authority . The estimated annual electricity is mentioned in section A.2. of the revised PDD.However, the same is not consistent with the ER sheet. Hence , PP is requested explanation. Referring to point 2 & point 5, CAR3 is not closed. 2nd Response : The implementation status of the project activity given in section A.2. of the PDD. However , for point 2, the HTSC no and date of commissioning is missing. Thus , PP is requested clarification for the same. The estimated electrciy for the project activity is made transparent in the revised PDD,However , the unit for the same is not transparent both in the PDD as well as in the ER sheet . Thus , PP is requested explanation, Referring to the above points, CAR3 is not closed. 3rd Response : The HTSC nos and commissioning dates of all the WECs are mentioned in the revised PDD.The same is cross-verified with the commissioning certificates and

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			found to be inline.Hence ,accepted. PP's jusitification and explanation is not reflected in both the PDD and ER sheet . Due to point 2, the CAR3 is not closed. 4th Response : 5.PP has mentioned the unit of net electricity transparently both in PDD as well as in the ER sheet. Thus,CAR3 is closed.
CAR4 1. The project location is defined in the section A.4.1. of the PDD along with the geographical co-ordinates . The same is cross- checked with the co-ordinates measured at project site using GPS and found to be mismatching. Thus, PP is requested to clarify the same. 2. PP has mentioned the location no for unique identification for all the WEC's, however PP is requested to substantiate the same with the supporting evidences. 3. PDD is not transparent on the project site map, thus, PP is requested to submit a legible map. Further, HTSC number is not mentioned in the PDD. 4. Based discussion with the PP ,site visit observation and document review , project activity involves installation, supply, erection, commissioning and operation of 18 WEC's of 0.8 MW rated capacity each, model no-E-53, which are manufactured by Enercon(India) Limited. This technology is manufactured at daman	A.4.1.,A.4.2.	1. The geographical co-ordinates have been revised as per the co-ordinates measured during site visit 2. Location number mentioned in the PDD as per the internal identification number used for micro-siting. These locations number has been crosschecked during the site visit from the CMS (Central Monitoring System). 3. PDD has revised the project site diagram and incorporated under section B.7.2 of the PDD. HTSC number has also been incorporated in the PDD under section A.2. 4. Since the manufacturing plant of WECs of Enercon (India) limited is situated in Daman, hence no technology transfer from Annex 1 countries has been occurred in the project installation. The same has been incorporated under section under A.4.3 of the PDD. 5. The Enercon manual for 0.8 MW has	1st Response: The geographical co-ordinates are updated in the revised PDD as per the measurement taken at site . As per the PP's justification it is understood that internal numbers are indentified to indicate the WEC's . However , the mentioned internal indentification number is cross verified withe site visit notes and found to be wrong .therefore , PP is requested to correct the same. HTSC numbers are updated in the PDD. however , PP is requested to make it consistent with the internal indentification numbers mentioned in the PDD. Further , PP mentions that HTSC number is incorporated in section A.2. of the PDD . the same is not correct. PDD is now updated with the details that there is no technology transfer from

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
manufacturing unit in India, operated and maintained indigenously, which does not involve any technology transfer from Annex I countries. However, the same is not transparent in the PDD. 5. PDD refers to the state of art technology, thus, PP is requested to submit the supporting evidences for the same. 6. Section A.4.2. of the PDD is not transparent on the following as per the specific guidelines for completing the PDD. i) Where the electricity will be supplied. ii) Description of how the project activity is environmentally safe and sound technology. iii) Total installed capacity of the project activity iv) Purpose of the project activity v) Annual average electricity generation and emission reduction of the project activity vi) Type of the project activity. vii) PLF and lifetime are not mentioned in section A.4.3. of the PDD.		been provided to the DOE. 6. Under section A.4.2 of the PDD, following information has been incorporated. i) The electricity generated from the project activity has been supplied to Tamil Nadu Generation & Distribution Corporation Ltd. ii) The project activity by displacing fossil fired electricity that is coal dominated also results in reduced emission of pollutants like SOx and solid waste. Hence the project is environmentally safe and has sound technology. iii) Total installed capacity of the project activity is 14.4 MW iv) The purpose of the project activity is to utilize renewable wind energy for generation of electricity. v) Annual average electricity generation and emission reduction of the project activity is 30,690.83 MWh vi) The project activity is wind power project, which consists of 18 machines of Enercon make E-53 type Wind Energy Converters (WECs) of 800 KW capacities each The PLF value has been added in section A.4.3 of the PDD. The life time is already mentioned as 20 years in the PDD under section A.4.3. Response 2: PP has correted the identification number of the WECs as per the CMS data in the	Annex 1 countries . The same is verified and accepted by the team. PP has not submitted the enercon manual as per the justification provided. Hence , PP is requested to provide the justification along withe supporting documents for the term used " state of art technology ". The followings are now updated in the PDD, Where the generated electricity will be supplied. Description of how the project activity is environmentally safe and sound technology. Total installed capacity of the project activity Purpose of the project activity. Annual average electricity generation and emission reduction of the project activity. Type of the project activity. PLF value is mentioned in the section A.4.3. of the PDD.However, PP is requested to mention the lifetime of the equipments involved in the project activity as per specific guidelines. In view of point no 2,3,5 & 6, the CAR4 is not closed. 2nd Response : The identification numbers are updated in the revised PDD , the same is verified with the site visit notes and found to be

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		section A.4.1. of the PDD. PP has made consistent the WEC identification number & HTSC number through the PDD. The project implemention status table of the PDD mention the HTSC number of the WECs. 5.PP has submitted the E-53 manual to the DOE. 6. The average lifetime of the WECs have been mentioned in section A.2 of the PDD. Response 3: 2 . As verified during the site visit, the screenshot of the CMS data is not possible because the software does not allow this. For cross verfication of the HTSC number the commissioning certificate has been submitted. PP has submitted the screen shot of Scada Ecare data for the same. 3. As verified during the site visit, the screenshot of the CMS data is not possible because the software does not allow this. For cross verfication of the HTSC number the commissioning certificate has been submitted. PP has submitted the screen shot of Scada Ecare data for the same. 7.Section A.4.2 has been revised as per the methodolgy. Response 4: 7. PP has updated the PDD as per the latest methodolgy.	correct .However ,PP is requested to submit the screen shots of CMS data to cross verify the location of WEG's HTSC number-3986, 3981 and 3999 . PP is requested to refer the point 2. PP has submitted the E-53 manual to represent the technology used in the project activity . The same is verified and accepted by the team . vii) The life time of equipment is mentioned now in the revised PDD . As per the same , the life time of equipment (WEG) is 20 years .The same is cross verified with the the certificate issued by the supplier and found to be correct .Hence , it is accepted . Section A.4.2. of the PDD refers to the purpose ,type of the project activity,Further , it mentions about the annual average electricity generation adn emission reduction of the project activity . The same does not comply with the specific guidelines for completing the PDD. Referring to the points , 2, 3 & 7 , CAR4 is not closed. 3rd Response : PP has submitted the screen shot of Scada E care data to support the identification numbers mentioned in the PDD. The same is verified and found to be inline with the PDD .Hence, accepted . Referring to the point 2, this point is

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			closed. This point is not closed as PP has not updated the PDD as per the query raised. Hence , Referring to the point 7, CAR4 is not closed. 4th Response : 1.PDD is updated with the necessary changes in section A.4.2. as per the specific guidelines . That is , purposed and other technology measures are removed from the section and mentioned in A.4.3. as per the specific guidelines .Hence ,accepted. CAR4 is closed now.
CAR5 1. The version number and EB report are mentioned as 12.2.0, EB65 respectively. The same is not the latest as per the UNFCCC site .hence, PP is requested to update the same with latest version. 2. PDD refers to version no 12.2.0, the same is not correct as per the UNFCCC site. Thus, PP is requested to clarify the same. 3. The following issues are identified in this section , i) PDD refers to the paragraph no of the applicability conditions .But no paragraph nos are referred in the methodology .Thus, PP is requested to correct as per the methodology. ii) PP is requested to justify the non applicability conditions of the	B.1.1.,B.2.1. B.6.2.1. to B.6.3.2. B.6.4.1.,	1. The version number of the methodology & EB meeting reference has been changed in all the section of the PDD 2. The version number of the methodology has been changed in all the section of the PDD 3. i) Para no column has been deleted from the applicability criteria of the PDD ii) The project activity is a new wind power plant. No replacement, modification or retrofit measures are implemented here. Hence, this criterion is also not relevant to the project activity. The same has been incorporated in the PDD. Response 2: 3 (i) PP has justified the applicabilty	1st Response : The version number and EB report are corrected as 12.3.0 and EB 66 respectively. The same is as per the latest version available withe UNFCCC site . The version number of methodology is corrected now in the revised PDD. The following issues are addressed by the PP, The paragraph nos mentioned in the applicability criterai is removed in the revised PDD.however , the applicability criteria discusssed is not complete in the revised PDD. PP has now justified the non applicablity conditions of the methodology transparently in the PDD.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
methodology transparently in the PDD.		criteria of the methodology in the revised PDD Response 3: 3(i) PP has made revision in the PDD and discussed the applicability criteria as per the methodology. PP has revised the PDD as per new version of methodology Response 4: 3(i). PP has provided the justifcation for all the applicable criteria mentioned in the methodology.	In view of point 3 (i) , CAR5 is not closed. 2nd Response : 3(i) the applicability criteria discussed is not complete in the revised PDD. i.e. applicability mentioned in page 2 of the methodology is not discussed in the PDD .Thus ,PP is requested revision. 4.PP is requested to follow the methodology of latest version as per the UNFCCC site. In view of the above point , CAR5 is not closed. 3rd Response : 3(i) PP is requested to justify all the applicabilty criteria mentioned in the methodology . 4. PP has followed the methodology of latest version as per the UNFCCC site. Due to the above, CAR5 is not closed, 4th Response :

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			3(i) PP has given justification for all the applicablity criteria mentioned in the methodology .hence ,accepted . Referring to the above , CAR5 is closed.
CAR6 The diagram refers to 10 no's of WEC in the project activity, the same is not consistent with the section A.2.of the PDD. Further PP is requested to clarify the term cluster meter. It is mentioned in section B.3. of the PDD that project boundary consists of WEC of other customers connected to substation .PP is requested to explain the same	B.3.1., B.3.2., B.3.3.	1. The diagram has been revised and correct diagram has been incorporated in the PDD. Each WEC have single meter therefore no cluster meter found during the site visit. The same has been incorporated in the PDD. 2. According to the applicable methodology, the spatial extent of this project activity includes the project site and all the power plants connected physically to the electricity system (grid) that the CDM power project is connected to. Therefore, the project boundary includes all the 18 WECs of Vish Wind Infrastructure LLP along with the WECs of the other customers connected to the EIL sub-station and the metering points. The project activity is further connected to the network of state transmission utility which falls under the network of Southern grid. Thus, the project boundary also includes all the power plants physically connected to the Southern grid. The same is already explained under section B.3 of the PDD Response 2: 1. PP has corrected the diagram in the PDD. 2. According to the applicable methodology, the spatial extent of this	1st Response : The jusitification by the PP is not reflected in the PDD . The justification and explanation given by the PP is not accepted by the team as WEC's of other customers falls under all power plants connected to the grid. Thus, CAR6 is not closed. 2nd Response : The diagram is corrected now in the revised PDD and It is confirmed that the same is as per the actual scenario of the project activity . As per the methodology ,the justification and explanation given by the PP is not accepted by the team as WEC's of other customers falls under all power plants connected to the grid. Due to point 2, the CAR 6 is not closed.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		project activity includes the project site and all the power plants connected physically to the electricity system (grid) that the CDM power project is connected to. Therefore, the project boundary includes all the 18 WECs of Vish Wind Infrastructure LLP along with the WECs of the other customers connected to the EIL sub-station and the metering points. The project activity is further connected to the network of state transmission utility which falls under the network of Southern grid. Thus, the project boundary also includes all the power plants physically connected to the Southern grid. The same is already explained under section B.3 of the PDD. Resposne 3: 2. As per the methodology the explanation regarding project boundary has been revised in the PDD Response 4: 1. The description for the project boundary has been revised as per the methodology and the schematic diagram.	3rd Response : 1. The description for the project boudnary is not mentioned as per the methodology and the schematic diagram of the PDD . Hence , PP is requested explanation for the same. Due to the above point , CAR6 is not closed, 4th Response : The description of the project boundary is mentioned as per the applied methodology and the schematic diagram of the PDD. Thus ,CAR6 is closed.
CAR7 1. The values for Emission factor (EF) has been taken from Central electricity authority (CEA) data base, version 6, March, 2011 from Ministry of power, India.However, it is noted that the version of CEA data base used in the project activity is not the latest version applicable at the time of submission of the PDD to DOE .	B.4.4.,B.6.1.1.,B.6.1.2.	1. The values for Emission factor (EF) has been taken from CEA database version 7, dated 01 Jan 2012 in the revised PDD 2. 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	1st Response : PP has taken the CEA data base of version 7, dated 01/01/2012 in the revised PDD .However , PP is requested to submit the ER calculations & EF calculation sheet as per the CEA data of latest version. PP's explanation is not correct as PDD

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
Further, the value of data used to determine the baseline is not mentioned as required by the guidelines for completing the PDD. 2. PDD states that there is no leakage considered for emission factor. PP is requested to explain the same. 3. The generation weighted OM is not calculated .PP is requested to explain the same.		and upstream emissions from fossil fuel use (e.g. extraction, processing, and transport). Since the project is wind power project, these emissions sources are neglected. The table used to determine the baseline has been revised. 3. The generation weighted OM has been calculated and mentioned in the PDD as annex 3 and also inserted in ER calculation sheet. Response 2: PP has submitted the revised ER and EF calculation sheet to the DOE. 2.) As per ACM0002, no leakage is considered in the emission reduction calculation. 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, and transport). Since the project is wind power project, these emissions sources are neglected. Response 3: PP has submitted the ER calculation & EF calculation sheet to the DOE. PP has revised the formula of baseline emission calculation in the PDD.	refers that no leakage is considered for the calculation of emission factor. The generation weighted OM has been calculated and mentioned in the PDD. However, PP is requested to submit revised ER & EF sheet as per the latest CEA data . Thus, CAR7 is not closed. 2nd Response : 1.PP has not provided any justification/explanation for point 1. 2.PP has given the justification for the leakage emissions considered in section B.6.1 of the PDD.However , the formula used in the PDD does not represent leakage emissions .Thus , PP is requested explanation for the same. 3.PP has not provided any justification/explanation for point 3. However , PP has not submitted the EF calcualtion sheet mentioning the step wise approch in calcualting the emission factor. 4.The date of CEA data is mentioned as 27/01/2012. But , the same is not consistent with the CEA data base . (Janurary 2012) .

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		PP has submitted the ER calculation & EF calculation sheet to the DOE. PP has corrected the date of CEA database Version 7 in the PDD Response 4: The PDD has been revised where it referred about the leakage.	Due to the above points, CAR7 is not closed. 3rd Response : 1. PP has submitted the ER calculation sheet & EF calculation sheet. The same has been cross verified and found that PP has used the CEA data base of latest version . Hence, accepted. 2.The formula for the leakage is corrected now .However, the PDD refers to "no leakage has been considered for the calculation of emission factor (LEy = 0)." The same is not correct , Hence , PP is requested clarification for the same, 3.Step wise approach is mentioned in the revised PDD as per the CEA data base of latest version. Further , Emission factor is calculated as per CEA data of latest version. The same is verified and accepted by the team , 4.The date is specified as 01/01/2012 . The same is not correct as per the CEA data base of latest version . Referring to the point 2 & 4, the CAR7 is not closed. 4th Response :

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			2.The PDD is corrected now as no leakage is considered for emission reduction calculation . the same is accepted as per the applied methodology. 4.The date is mentioned correctly as per the latest version of CEA data base. Referring to the above , CAR7 is closed.
CAR8 A) PP has referred the methodology ACM 0002, version 12.2.0.the same is not correct as per the UNFCCC site. Thus , PP is requested to follow the correct version of methodology as per the UNFCCC site, B) PP is requested to explain the following , 1. The O&M calculations are not correct .escalation in O&M is considered from year 2012 - 13 onwards, which is not correct. 2. In the IRR sheet, it is mentioned that O&M cost is 6.17 lacs per WEC whereas the offer letter mentions O&M cost as 6.2 lacs per WEC. 3. O&M calculation is not correct. Thus , PP is requested to explain the same. 4. In the calculation of accelerated depreciation transfer of development right charges and land and transportation charges are deducted and in book depreciation only land and transportation	B.5.4.1.,B.5.4.2., B.5.4.3. B.5.4.5., B.5.4.6.,B.5.4.8.	A) The version number of the methodology ACM0002 Version 12.3.0 & EB meeting reference has been changed in all the section of the PDD as per UNFCCC site. B) 1. As refer to the supplier offer, the base year is 2nd year from the commissioning of WECc as 1st year is free. Hence the O & M calculation is correct 2. The O & M has been revised as per the offer letter submitted to the DOE in the IRR calculation sheet. 3. There was the typological error in the IRR calculation sheet. The O & M has been revised as per the offer letter submitted to the DOE in the IRR calculation sheet. 4. In the calculation of accelerated depreciation & book depreciation transfer	1st Response : A)The version number is updated in the revised PDD as per UNFCCC site .hence ,accepted. B) 1. As per the PP's explanation ,the base year is 2nd year from the commissioning of WECs. the O&M cost is free for one year as per the offer letter submitted by the PP. Hence , the O&M cost is considered from the year 2012-13 onwards. Hence , it is accepted. 2. O&M cost is corrected in the revised IRR sheet as per the offer letter. However , in the source of reference , it is mentioned as 6.17 lac only. Hence, PP is requested to correct the same. 3. The O&M calculation is corrected now as per the offer letter . Please refer to the point 2. 4. PP has not considered the benefits of

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
charges have been deducted from total project cost. Thus, PP is requested to explain the same. . 5.. O&M cost base year is 1.3% of capital cost; however, ER sheet is not transparent on which year is taken as base year in calculations. 6.. PP is requested to explain on how the O&M calculation is done. 7.. Under Working capital requirements, PDD mentions as 30 days for receivables, but the same is not transparent on how the value is calculated in the excel sheet. , Further, PP is requested to mention the calculation of the same in the PDD 8 PP is requested to explain the applicable tax criteria between income tax and MAT with respect to the project activity taken in the assumption sheet. . . .. 9.It is identified from the land documents that some are on Rs.5000 stamp paper and others on Rs.10000. Thus, PP is requested to clarify on why this is so. Since the deed is for 2.5 lacs in all. 1110. For some of the land deed documents (VWIL-V 52), date is not mentioned. Thus, PP is requested to clarify the same. 11. PP is requested to provide the reference year of Income Tax Act on which the tax calculation has been done. 12. PP is requested to make it transparent on the date of decision making in the PDD . 13. PP has taken the no of operating hours based on the previous year in the calculation of O&M expenses, Thus , formula for O&M cost used by the PP is not correct,		of development right charges and land and transportation charges are deducted from the total project cost as they not depreciable. 5. As refer to the supplier offer, the base year for O & M cost is 2nd year from the commissioning of WECs as 1st year is free. 6. As refer to the supplier offer Operation and Maintenance Contract will be executed for a period of 10 years from the date of commissioning. O & M will be carried out free of charge for the 1st year and charges for the second year will be Rs. 6.20 lacs per WEC per annum with escalation of 6 % every year over the previous year up to 10th year. Therefore the base year is 2nd year from the commissioning of WECs. 7. Detail on working capital has been incorporated in the PDD section B.5. 8. Since Vish Wind Infrastructure LLP is Limited liability Partnership firm therefore alternate minimum Tax liability has been applied as income tax act FY 2011 & 2012. 9. Land documents execution is as per company internal policy which is beyond the scope of project. 10. The original land documents have been verified by the DOE. The documents submitted is only the documents which have been executed. The land documents were executed by legal officials and state administrator. 11. The reference year i.e. 2011-2012 of Income Tax act has been mentioned the	accelerated depreciation in the cashflow.Thus , PP is requested to justify the same . Please refer the below link . http://www.energynext.in/indian-govt-ends-accelerated-depreciation-for-wind-power-projects/ 5. As per the offer letter, the first year of O&M service will be free of cost. Hence , the base year is taken from the 2nd year from the commissioning of WEC . The same is verified and accepted by the team. 6.PP's explanation is contradicting with the value mentioned in the IRR as well as with the offer letter.Hence , PP is requested clarification. 7.Revised PDD is not updated for the same. Thus , PP is requested to update the PDD as well as the excel sheet. 8. As per the PP's explanation and justification , Vish Wind Infrastructure LLP is limited liablity partnership firm .Therefore, alternate minimum tax liability has been applied according to income tax act FY 2011-2012. further, it is noted that tax rate assumed corresponds to the prevailing at the time of decision making. Hence ,accepted . 9.All the land documents are executed by the local government authorities . The same is confirmed during the document review. Hence , the PP's justification and

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
14. PP is requested to provide details of actual costs incurred to date with invoices contracts etc. 15. PP is requested to provide the basis for the working capital assessment. 16. 17. The spreadsheet does not contain the sensitivity analysis for tariff and the PP does not explain clearly why the project cost will not reduce by 36.63% or the tariff will not increase by 5.83%.Thus, PP is requested to clarify the same. 18. The key parameters identified for the sensitivity analysis includes the Capital cost, Plant load factor, O&M charges, Tariff. PP has carried out sensitivity for ±10%. However, Sensitivity on tariff is not mentioned in the IRR sheet, PP is requested to explain the same. 19. PP has given justification for each parameter on why the every variation is unlikely to happen. However, in the justification for tariff, PP has give details of REC and however, PP is requested to explain on why the preferential tariff is considered. 20.PP is requested to justify the sensitivity analysis based on actual value of parameters. 22. It is mentioned in PDD that IRR crosses benchmark at PLF of 42.22% and it is mentioned that it is unrealistic. However no justification is provided for the same.		IRR sheet calculation. 12. Project decision making date has been incorporated in the PDD 13. PP has considered the operating hours from the previous month as WEC was operational from Oct 2011 and for one year the O & M services was free, i.e. till Aug 2012. Therefore working hours from Oct 2012 was considered in the O & M expense calculation. Hence we have considered previous year hours for the calculation. 14. Project purchase order has been already submitted to cross verify the actual cost. CA certificate has also been submitted to DOE in order to verify the real project cost. 15. We would like to submit to DOE that according to the supplier's offer, PP need to pay the O&M expenses quarterly in advance to the O&M contractor and there is billing cycle of 30 days, since PP need to pay the repay the loan and to full fill other expenses there is requirement of working capital. 16. N/A 17. Tamil Nadu state electricity commission via its tariff order dated 20 March 2009 has fixed the tariff for the period of 20 years (Lifetime) for the wind power projects. The tariff for the entire life of the project activity is fixed a Rs. 3.39 per Unit. Therefore it is not appropriate to conduct sensitivity on tariff. The equity IRR crosses the benchmark at capital cost variation of 36.63% for the project. The actual project cost is INR 792	explanation is accepted by the team . 10. Referring to the above point , this point is closed. 11.The reference year is mentioned in the IRR sheet calculation based on the Income tax act 2011-2012. 12. Date of decision making date is mentioned in the revised PDD. The same is verified with the copy of board resolution and found to be correct . hence , accepted. 13.The formula for calculating the O&M cost shoud be justified transparently in the PDD . 14. PP has provided the CA certificate stating "the actual project cost" involved in the project activity . The same has been verified and found that there is the cost difference between the purchase order and cost mentioned in the CA certificate . Thus, PP is requested clarification for the same. Further , PP is requested to submit the copy of payment invoices done for the major equipments involved in the project activity. 15. PP's explantion and justification is not clear. Thus , PP is requested to provide the explanation transparenly in the PDD along with the supporting documents.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		Million as per purchase order which essentially means that variation in project cost provided in the supplier offer and purchase order is less than 10%. Therefore, the negative variation of 36.63% is not realistic. 18. Tamil Nadu state electricity commission via its tariff order dated 20 March 2009 has fixed the tariff for the period of 20 years (Lifetime) for the wind power projects. The tariff for the entire life of the project activity is fixed a Rs. 3.39 per Unit. Therefore it is not appropriate to conduct sensitivity on tariff. 19. "The projects developed under APPC tariff (Average Pooled Power Purchase Cost) structure are eligible for RECs (Renewable Energy Certificates). The project activity under consideration has been proposed under APPC tariff structure. As per paragraph 6 of Annex 3 EB 22, national and/or sectoral policies or regulations that give comparative advantages to less emissions intensive technologies over more emissions-intensive technologies can be termed as E- policies. The national policy on REC provides comparative advantage to less carbon intensive technologies and it came in existence after 11 November 2001. Therefore, REC is an E- policy. As per paragraph 3 of Annex 32 Eb 53, the assessment has to be conducted to gauge the impact of national and sectoral policies for suitability of tariff and to judge whether the policy/policies are E+ policies or E- policies. Considering the fact that REC is an E- policy, PP has not considered REC impact during the	16.NA 17. PP is requested to provide the sensitivity analysis for all the parameters in the excel sheet , though the tariff is fixed for 20 years. 18. PP is requested to provide the sensitivity analysis for all the parameters in the excel sheet , though the tariff is fixed for 20 years. 19.PP's justification for preferential tariff is accepted by the team. However , as per the PP's justification , PP has not conducted the sensitivity analysis for tariff.Thus, PP is requested clarification. 20.PP has done the sensivitiy analysis based on the actual values . The same is verified and accepted by the team . 21. NA 22. The justification and explanation provided by the PP is accepted by the team . However , PP is requested to provide actual energy generation data to cross verify the PLF. 23. Further , the following issues are identified,

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		investment analysis and has used tariff of 3.39 INR/kWh approved by Tamil Nadu state electricity commission which would have otherwise been used for demonstrating additionality in the absence of the E- policy. Since tariff approved by Tamil Nadu state electricity commission is fixed for 20 years, it is not appropriate to conduct sensitivity on tariff. However, PP has conducted the sensitivity analysis for tariff and found that the equity IRR crosses the benchmark at tariff of INR 5.89/ kWh for the project, which is again not realistic. 20. PP has performed the sensitivity analysis on actual parameters. The IRR sheet based on the actual parameters has submitted to the DOE. 21. N/A 22. The equity IRR crosses the benchmark at effective PLF of 42.22% (variation of 73.52%) for the project activity. The PLF provided by third party is 24.33%, therefore, the variation of 73.52% over the PLF provided by the third party is not realistic. Response 2: B) 2) Source of the reference of the O & M cost has been revised in the ER sheet. 3) Source of the reference of the O & M cost has been revised in the ER sheet. 4) The investment analysis excel sheet submitted to the DOE has considered	The document to support the insurance quote from the insurance provider is not provided. The links provided for book depreciation rate (straight line method basis) is not correct .Thus , PP is requested clarification . http://law.incometaxindia.gov.in/DIT/Income-tax-acts.aspx PP is requested to provide the document to support the billing cycle used in the IRR sheet. Referring to the above points, CAR8 is not closed. 2nd Response : B. 2. The source of reference is corrected in the IRR sheet.The same is accepted by the team . 3. Referring to the point 2, point 3 is also accpeted and closed now. 4. The validation team has verified the excel sheet and noted that 80% accelerated depreciation has been considered and tax shielding has been accounted as a result of accelerated depreciation ,Hence , it is accepted by the team .

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		80% accelerated depreciation and has also taken into account the tax shielding as a result of the accelerated depreciation. This is evident from the 'cash flow statement' in both the excel sheets. The project 'p&l' statement also takes into account the tax exemption for the project activity. The investment analysis sheet confirm that the tax benefits under 80 IA sections of the IT act has been included. In spite of this, it is observed that the chosen financial indicator i.e. equity IRR does not cross the benchmark. This indicates that the project is not financially viable even after the tax benefits have been considered. 6) PP has revised the O & M charges as per the offer letter and made it consistent. 7. Details of the Working capital has been incorporated in the PDD under section B.5 on page 27 and also in the ER sheet. 13. The explanation regrading O & M expense calculation has been incorporated in the PDD. 14. PP has rechecked the CA certificate & PO copy and found that the total project cost has no difference. In the Purchase order, cost incurred in transfer of development right came twice. But in the final project cost calculation we have considered the cost transfer of development right once only. Hence found no difference in the project. The same has been also explained to the DOE.	6.PP has revised the O&M charges as per the offer letter . the same is verified and accepted by the team . 7.Details on working capital has been incorporated in the section B.5. of the revised PDD .However , PP is requested to provide the supporting documents for the same. 13. The jusitification for the calculation of O& M cost is mentioned transparently in the PDD in section B.5. . The same is verified and accepted by the team , 14. PP's justification and explanation is accepeted by the team as PP has submitted the CA certificate to support the actual cost incurred for the project activity . The same is cross verified and found to be correct . Hence ,accepted. 15.PP has given the justification for the working capital assessment in the PDD. The same is verified and accepted by the team . 17. PP has now provided the sensitivity analysis for the tariff also . the same is cross checked and accepted by the team. Hence , point 18,19 also closed. 22. PP has submitted the third party document prepared by True wind international certification, India. The same

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		We have submitted Purchase order copy to the DOE to get the total project cost. In order to cross check the values of purchase order we have also submitted the CA certificate. The copy of invoice is the internal accounts documents and access to those documents is not possible. 15. PP has appropriately considered a 30 day billing cycle for the receivables in the working capital calculations and has considered the O&M payment schedule as per the offer letter issued by the WEC supplier which states that - "The O&M charges shall be payable each quarter in advance" i.e. every 90 days. The billing cycle of 30 days and O&M payment schedule of 90 days has been correctly applied in the IRR excel sheet. Hence there is requirement of working capital. Therefore working capital has been taken for the project activity. The same has been incorporated in the PDD under section B.5 on page no.27. PP has submitted the supplier offer to the DOE as the supporting documents. 17. Tamil Nadu state electricity commission via its tariff order dated 20 March 2009 has fixed the tariff for the period of 20 years (Lifetime) for the wind power projects. The tariff for the entire life of the project activity is fixed a Rs. 3.39 per Unit. Therefore it is not appropriate to conduct sensitivity on tariff. But on the request of DOE, PP has done the sensitivity on Tariff and incorporated both in the PDD & Financial Analysis sheet. 18. Tamil Nadu state electricity	complies with guidelines for the reporting and validation of plant load factors . Hence ,accepted. 23. The following issues are addressed by the PP. i) The copy of quotation obtained from the United india insurance co.limited has been submitted by the PP. Hence ,accepted. ii) No revision is done as per the PP's explanation in the PDD. The same link is persisting . Hence , PP is requested clarification iii)PPA &Offer letter has been submitted in the support of billing cycle . the same is cross verified and accepted by the team . iv) Section B.5. of the PDD refers to 6.17 per WEC as O&M cost ,The same is not matching with other part of the PDD as well as with the IRR sheet .Thus , PP is requested clarification . 24. PP is requested to follow the methodology of latest version as per the UNFCCC site. Due to the above points , CAR8 is not closed, 3rd Response : B) 7.The justification for the billing cycle is

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		commission via its tariff order dated 20 March 2009 has fixed the tariff for the period of 20 years (Lifetime) for the wind power projects. The tariff for the entire life of the project activity is fixed a Rs. 3.39 per Unit. Therefore it is not appropriate to conduct sensitivity on tariff. But on the request of DOE, PP has done the sensitivity on Tariff and incorporated both in the PDD & Financial Analysis sheet. 19. On the request of DOE, PP has done the sensitivity on Tariff and incorporated both in the PDD & Financial Analysis sheet. 22. The value of PLF is estimated by third party for the project activity. The PP has used the PLF from the third party PLF report (24.33%) for the investment analysis. As per the UN guidelines in paragraph 3(b) of EB 48 Annex 11, the PP has contracted a third party (24.33%) to determine the PLF at the WEC site. Thus the PLF considered for the project activity satisfies the requirements of EB 48 Annex 11 (paragraph 3b). Hence as per the guidance related to PLF, actual generation is not required during the validation. The same will checked during the verification activity. 23 i.) Insurance quote has been submitted to the DOE ii) PP has revised the link of book	accepted by the team and same is substantiated by the offer letter and PPA submitted the PP. Hence, accepted. 23. The Issues addressed as per the PP's response , ii) The reference links have been revised in the PDD . the same is verified and accepted by the team. iv)The O&M cost has been corrected as 6.20 as per the offer letter . The same is found to be consistent throughout the PDD and IRR sheet . Hence,accepted . 24. PP has followed the methodology of version 13.0.0 .The same is cross verified with the UNFCCC site and found that it is the latest available with the UNFCCC site . Thus , CAR8 is closed now .

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		depreciation in the PDD & Excel sheet. iii.) PP has submitted the PPA to the DOE where the billing cycle has been defined. Resposne3: 7. PP has submitted the Enercon offer letter. The reference of the working capital has been taken for this offer letter. 23. ii) The link has been revised in the PDD and financial sheet. iv) The O & M cost has been revised in section B.5 of the PDD as per Enercon offer letter. The same has been made consistent in the PDD as well as IRR calculation sheet. 24. PP has revised PDD as per new version of ACM0002 mehtodology.	
CAR 9 1. The return on equity value has been taken from the default values provided in the latest version of guidelines on the assessment of the investment analysis, however, PP is requested to calculate the same based on actual values and then compare with the default values so as to be conservative 2. The RBI document for the inflation rate is after the decision making date. Hence, PP is requested to justify the appropriateness of this benchmark	B.5.4.8.	1. Since there is no such guideline where it is required to compare the benchmark as per the latest version of guidelines on the assessment of the investment analysis with the benchmark which was calculated earlier using WACC tool. As per the UNFCCC "Guidelines on the Assessment of Investment Analysis" version 05, Annex 5 EB 62, it clearly defines the procedure of financial analysis. Hence PP has calculated the return on equity value from the default values provided in the latest version of guidelines.	1st Response : 1. PP's justification and explanation is accepeted by the team . Because as per the guidlines, PP has taken the default values to arrive at the benchmark value . The same is verified with the guidelines and accepted. 2.PP's explanation is not clear as the same resource & value is taken in the IRR sheet . Thus, PP is requested explanation for the same.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		2. The inflation rate is revised as per report of Quarter 3 of FY 2010-2011. Hence the benchmark also revised. Response 2: The inflation rate is revised as per report of Quarter 3 of FY 2010-2011. Hence the benchmark also revised. The same has been also revised in the PDD.	Referring to the point 2, CAR9 is not closed. 2nd Response : PP has revised inflation rate taken for calculating the benchmark as per the survey of professional forecasters ,dated 02/02/2011. Which is prior to the decision making date (20/05/2011). The same is verified with benchmark calcualtion sheet and revised PDD and found to be correct. Thus,CAR9 is closed now.
CAR10 1. PP has not followed latest guidelines on common practice, version 01.0,dated 29/09/2011Further it is noted that , PP has used the Indian wind power directory, 2009. The same is not the latest available at the time of decision making. Hence, PP is requested to use the latest version available at the time of decision making. Further, PP has compared the projects more than 15MW .however, as per the guidelines +/- 50% of the capacity needs to be compared. It is noted that in the PDD under common practice analysis, the link for the projects listed at serial no.7 and 8 are not UNFCCC links. Thus. PP is requested to explain the same.	B.5.6.1.to B.5.6.4.	1. PP has revised the common practice analysis as per the new guideline on EB 65 Annex 21 in the revised PDD. PP has revised and compared the project as per the new guideline. The same has been removed from the PDD. 2. The detail common practice sheet has been submitted to the DOE. 3. i). The table of common practice analysis has been removed from the PDD. ii). PP has submitted the wind power directory	1st Response : 1.The following issues indentified in the revision of the PDD for common practice analysis, Section B.5. of the PDD refers to " $N_{LSP,W,Guj}$ " .This represents the gujarat . Thus , PP is requested clarification for the same. PP has not submitted /referred any documents for the common practice analysis mentioned in the PDD . As per the guidlines ,+/-50% of capacity needs to be compared in the analysis. The same is not done in the PDD. Hence , PP is requested explanation .

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
2. PDD is not transparent on the how many similar non-CDM projects exist in the region with the scope. Further, PP is requested to provide the detailed common practice analysis in the excel sheet. 3. The following discrepancies are indentified, i).The web links mentioned in the PDD is not working .Thus, PP is requested to clarify the same. ii).PP is requested to submit the latest supporting documents to substantiate the common practice analysis		Response 2: A. PP has revised the notation in section B.5. PP has submitted the copy of Wind Power Directory to the DOE The explaination regarding +/-50% of capacity has been provided in the PDD PP has submitted the copy of Wind Power Directory to the DOE PP has mentioned the reference of all the regulatory regime in the PDD. PP has crosschecked the weblinks and revised the same in the PDD. B) PP has clearly mentioned that there are no CDM projects operation in Tamil Nadu that are not into CDM. C) PP has submitted the common practice excel sheet to the DOE. Hence the same is deleted from the PDD. D)PP has resubmitted the copy of Wind Power Directory to the DOE. Response 3: Iii) PP has revised the justification of common practice in the revised PDD as per the methodoly. PP has revised the common practice analysis ans also revised the common practice sheet. vi) PP has submitted the revised common practice anaysis sheet and also	PDD states that there is no operational wind power projects in the state of Tamil Nadu that are large scale and non CDM. PP is requested to provide the evidences for the same. PDD states that " each state will have the different regulation with respect to procurement and supply of power from renewable energy sources" .hence , the large scale wind power projects that are executed in the different regulatory regime can be termed as different technology. However , PP is requested to provide the evidence for the same. In common practice analysis sheet , the weblinks provided for the projects such as Muthoot Fincorp Ltd,Premier Spg & Wvg Mills Pvt. Ltd, MRF Ltd, Grace Infrastructure (P) Ltd, Vishal Export Overseas Ltd, are not the UNFCCC links . PDD is still not transparent on how many similar non-CDM projects exist in the region with the scope. Please refer to point 1. PP has removed the table of common practice analysis from the PDD.the same is not accepted by the team .Thus ,PP is requested to make it transparent in the PDD regarding the common practice analysis. PP has not submitted the wind power directory of latest version. Due to the above points , CAR10 is not closed.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		submitted to the DOE. PP has submitted the revised common practice anaysis sheet and also submitted to the DOE. PP has submitted the revised common practice anaysis sheet and also submitted to the DOE. Response 4: iv) a) PP has submitted the revised Common practice sheet where +50/-50 of capacity range of the project activity in Wind power projects in Tamil Nadu state has been clearly identified. Justification regarding Sub step -4a of the additionality tool has also been defined in the Common practice sheet. 2.PP has submitted the revised Common practice sheet. 3. PP has submitted the revised Common practice sheet.	2nd Response : 1.The following issues are addressed by the PP, In section B.5. of the PDD, the notation $N_{LSP,W,Guj}$ is corrected as $N_{LSP,W,TN}$. The same is verified and accepted by the team . PP has submitted the wind power directory -2011 to support the common practice analysis done for the proposed project activity . the same is confirmed to be the latest one available at the time of decision making . Hence ,accepted . PP's justification in the revised PDD is not accepted by the team as it does not comply with the guidelines. Please refer to point iii) . PP has not submitted the revised common practice analysis sheet . PP has provided the reference links of all the regualatory regimes available in the host country (india). The same is verified and accepted by the team . PP has neither updated the PDD nor submittted the revised common practice analysis sheet .hence, PP's explanation/justification is not accepted by the team . PP is requested to provide the revised excel sheet for common practice analysis along with the justification . Please refer to point 2.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			PP has submitted the wind power directory-2011 to support the common practice analysis. The same is the latest information availabel at the time of decision making. Hence ,accepted. Thus Referring to the above points , CAR10 is not closed. 3rd Response : 1. The Issues addressed by the PP, iii) PP has now done the analysis for +/-50% of the project capacity ,The same is found to be inline with the guideline. Hence,accepted. iv) PP has submitted the revised common practice sheet now. However , PP is requested to make the following transparently in the PDD, No of Projects indentified in the +50/-50 of capacity range of the project activity in Wind power projects in Tamil Nadu state. Justify on why similiar actiivities cannot be indentified as per the Sub step -4a of the additionality tool . Further , Common practice analysis sheet is not complete. Thus ,PP is requested clarification .

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			vi) PP has updated all the weblinks in the revised sheet of common practice analysis. The same is found to be UNFCCC links . Hence ,accepted. 2.PP has submitted the revised the common practice analysis sheet . However ,Please refer to point 1 (iv) . 3.Please refer to point 2. Referring to the above point s, CAR10 is not closed. 4th Response : 1. The Issues addressed by the PP, iv) PP has submitted the revised common practice sheet now . a. PP has now mentioned the no of Projects indentified in the +50/-50 of capacity range of the project activity in Wind power projects in Tamil Nadu state. b. Jusitification is provided as per the Sub step -4a of the additionality tool . c. PP has submitted the revised common practice analysis sheet .the same is verified

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			and accepted by the team. 2.PP has submitted the revised the common practice analysis sheet . 3.Please refer to point 2. Thus ,CAR10 is closed.
CAR11 As per the webhosted PDD, the reading is taken in presence of PP representative whereas it is mentioned in the PDD that PP does not have role to play. PP is requested to explain the same A)The following discrepancies are identified based on site visit observation and discussion with the PP , 1. Section B.7.1. of the PDD refers to the cluster meter and at one location 2 wind turbines of the same investors are connected to a single cluster meter , this is contradicting with the procedure followed at site, thus PP is requested to clarify the same. 2. Single Line Diagram mentioned in the PDD is not correct as per the monitoring procedure followed at the project activity Thus,PP is requested to clarify the same. 3. PDD is not transparent on the calibration frequency of the meters.	B.7.1.1., B.7.1.3. B.7.1.4., B.7.3.1. B.7.3.2., B.7.3..3	The electricity export as well as the electricity imported by the project activity wind mills are recorded at the TNEB meter as well as at the main and check meter of the Enercon pooling station on a monthly basis, in the presence of representatives of TNEB and the Project Participant. Based on this monthly recording, the TNEB representatives apportion the transmission line losses amongst the various wind turbines (project activity as well as non-project activity) to deduce the net electricity supplied by the individual wind turbines to the grid. The net electricity supplied to the grid, so deduced, is indicated in the 'Monthly Statement of Energy' issued by TNEB. The procedure for such apportioning is conducted and controlled by the TNEB and neither the Project Participant nor the Project Participant representatives have any role to play in the same. A)	1st Response : PP's explanation and justification does not reflect in the revised PDD. PP is requested to mention transparently in the PDD regarding the measurement procedures. A)The following issues are responded, 1.In section B.3. of the PDD, the diagram still represents the cluster meter . Further , PDD still refers that At one location, 2 wind turbines of the same investor are connected to a single meter too. Hence, PP is requested explanation for the same. 2.Single line diagram is updated now in the revised PDD. 3. The calibration frequency is made transparent in the PDD. B) 1.The montoring frequency is not transparent in the PDD . Thus ,PP is requested to follow as per the applied methodology.Recording frequency is not

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
B) PDD is not transparent on the monitoring frequency of the following monitoring parameters. 1.The net electricity (Export-import) supplied to the grid by the individual WEC's.(cluster meter) 2.The net electricity supplied by the WEC's of project activity and non-project activity at the enercon pooling station.(Main and check meter) C) PP has explained the apportioning procedure in the section B.7.2. of the PDD. However, PP is requested to substantiate with the documents for the sources and methods used in the apportioning procedure. D) PDD is not transparent on the record handling, storage area of records and documentation for performance evaluation, though it is available. E) PDD is not transparent on 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. F) As per the webhosted PDD, the reading is taken in presence of PP representative and on the other hand , the other places of PDD refers that PP does not have any role to play .Thus , PP is requested to provide the explanation for the same.		1. For the project activity, there is single metering point for each WECs. No cluster metering point is available for any WECs. The same has been revised and the present monitoring procedure followed at the site for the project activity has been mentioned in the revised PDD. 2. Single Line diagram has been revised and incorporated in the PDD 3. The PDD has incorporated the frequency of calibration in the PDD B) The revised PDD has explained the monitoring frequency of the following parameters: The monitoring procedure has been explained in section B.7.2. The monitoring procedure has been explained in section B.7.2. C) As in Tamil Nadu, every WECs have their individual billing meters where the import & export values can be archived. The transmission loss between 33 KV & 110 KV is calculated by EB and there is no role of PP or Enercon officials as referred in the PPA section 4. The apportioning procedure has been removed from the PDD. D) PP has described the monitoring & recording responsibilities in the revised PDD. E) PP has described about the data management in the revised PDD. F) The electricity export as well as the	transparent in the PDD . Hence ,PP is requested to make it transparent as per the applied methodolgy. 2. There is inconsistency in mentioning the accuracy class of main & check meter located at the enercon pooling station in the revised PDD . 3.PP is requested to submit the copy of calibration certifcates of all the meters. C)The apportioning procedures are removed in the revised PDD and the monitoring procedures are revised as per the present scenario.The same is accpeted by the team .However , PP is requested to provide the explanation on how the emission reductions will be calculated when the start date of the crediting period does not match with the start date of the energy generation as per the monthly statement. D)Section B.7.2. of the PDD is revised now .It is understood that daily energy generation reports,calibration and other maintenance records will be maintained by the Enercon (India) Limited and the same will be kept 2 years after the crediting period. The same is accepted by the team . However , PDD refers that " action plan for commitment towards Sustainability Development for CDM project has been explained in attached Annex 5". But the Annex 5 is not transparent in the revised PDD. Thus , PP is requested clarification. E)PDD is updated with the data

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		electricity imported by the project activity wind mills are recorded at the TNEB meter as well as at the main and check meter of the Enercon pooling station on a monthly basis, in the presence of representatives of TNEB and the Project Participant. Based on this monthly recording, the TNEB representatives apportion the transmission line losses amongst the various wind turbines (project activity as well as non-project activity) to deduce the net electricity supplied by the individual wind turbines to the grid. The net electricity supplied to the grid, so deduced, is indicated in the 'Monthly Statement of Energy' issued by TNEB. The procedure for such apportioning is conducted and controlled by the TNEB and neither the Project Participant nor the Project Participant representatives have any role to play in the same. Response 2: PP has provided the explanation regadring measurement procedures. PP has revised the diagram in the PDD. The monitoring frequency has been explained in the revised PDD. The accuracy class of main & check meters at Enercon Pooling station has been consisitent in the revised PDD. Since the meters are installed recently and calibration frequency is annual in	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. F)PP's explanation and justification does not reflect in the revised PDD. PP is requested to mention transparently in the PDD regarding the measurement procedures. Due to the above points , CAR11 is not closed. 2nd Response : PP has revised the PDD as per the jsutification provided . The same complies with the actual scenario of the project activity .Hence ,accepted. The following issues are addressed , The diagram is revised in the latest PDD. The same implies that each WEC's has it own meter (TNEB meter) .As it complies with the actual practice at site ,it is accepted by the team . Recording frequency is updated in the PDD .However ,The monitroing ferquency is not yet updated in the revised PDD. Thus ,PP is requested clarification . The accuracy class of the meters are mentioned as 0.2 S . the same is consistent throughout the PDD. The same is found to be correct as confirmed during

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		Tamil Nadu, the meters calibration has not been conducted. The calibration certificate will submitted in the first verification. PP wil forgo the generation in the calculation of emission reduction for that particular month if the start date of the crediting period does not match with the start date of the energy generation as per the monthly statement and will start the monitoring period from the next monthly statement. PP has incorporated Annex 5 in the PDD where they have explained the action plan for commitment towards the Sustainability Development for this project. Response 3: B) 1. PP has mentioned the monitoring frequency in the revised PDD. C) The explanation for calculating the emission reductions when the start date of the crediting period does not match with the start date of the energy generation as per monthly statement has been mentioned in section B.7 of the PDD. D) PP has revised Annex as Appendix in the revised PDD as per the methodolgy. E) Section B.6 of the PDD has been revised.	site visit. PP's jusification and explanation is accepted by the team as the one year is not completed from the commissioning of the project activity ,Thus, this point is closed now. PP 's explanation for calculating the emission reductions when the start date of the crediting period does not match with the start date of the energy generation as per monthly statement is accepted by the team. However , PP is requested to make it the transparent the same in the PDD also, PP has incorporated the action plan for commitment towards the sustainability development for the project activity under Annex in the PDD , The same does not comply with the specific guidelines. In section B.6. ,Page no.28 of the PDD refers to "Therefore as per the paragraph 12 of the applied methodology baseline emission factor is calculated as combined margin, consisting of a combination of operating margin and build margin factors according to the procedures prescribed in the latest tool". The same is not referred in the applied methodology . Due to the above points , CAR11 is not closed. 3rd Response :

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			B) 1.The Monitoring ferequency is updated in the revised PDD . The same complies with the applied methodology . Hence,accepted. C) Revised PDD is updated with the explanation for calculating the emission reductions when the start date of the creditng period does not match with the start date of the energy generation as per the monthly statement . Hence,accepted. D) .PP has corrected annex as appendix . Hence ,accepted. E) Revised PDD is updated with the correction . The same complies with the applied methodology . Hence,accepted. Thus , CAR11 is closed now.
CAR12 PP is requested to provide the justification and explanation for the global stakeholders comments received for the first and second webhosting of the PDD.	Section 4.	PP has provided the explanation for the global stakeholders comments received for the web hosting of the PDD	1st Response : 1.PP has provided the explanation/justiifcation for the global stakeholders comments received for the webhosting of the PDD. The review from DOE is provided in the separate table . However, Referring to the other CARs & CLs , CAR12 is not closed.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			2nd Response : Same as above. 3rd Response : Same as above . 4th Response : CAR12 is closed considering all the CARs and CLs.
CL1 PP is requested to submit the following documents to confirm & assess the design of the project activity 1. Power purchase agreement (PPA) made with state electricity board 2. PP has submitted the copy of commissioning certificates of 14 WEC's, thus PP is requested to submit the copy of commissioning certificates of the remaining WEC's. 3. PP has submitted the copy of approval order received from the Tamilnadu generation and Distribution Company limited for 17 WEC's. Thus, PP is requested to submit the approval order for remaining also.	A.2.1.,B.2.2.	PP has submitted following documents to the DOE to confirm & assess the design of the project activity 1. PPA submitted to DOE 2. Commissioning Certificate of remaining WECs submitted to the DOE 3, NOC of 1 pending WECs submitted to the DOE Response 2 1.PPA has been submitted 2.Pending one commissioning certificate has been submitted 3. All 18 NOCs have been submitted	1st Response : The PPA have not been submitted to DOE .PP is requested to submit the copy of PPA made for all the WECs involved in the project activity. The remaining copy of commissioning certificates have not been submitted. NOC of 1 pending WECs is not submitted. Thus ,CL1 is not closed. 2nd Response : PP has submitted the copy of PPA's made with the state electricity board. The

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		Response 3: PP has submitted the pending comissioning certificate to the DOE.	same was cross checked and accpeted by the team . There are three commissioinig certificates yet to be submitted by the PP,which are WEC HTSC nos -3986,3981,and 3999 . Thus , PP is requested to submit the same. Referring to point 2 , CL1 is not closed. 3rd Response : PP has submitted the commissing certificates of all the WECs. Hence , this point is closed now. CL1 is closed now .
CL2 1. As per the webhosted PDD, there is no public funding from Annex I countries for the proposed project activity, however, PP is requested to clarify on the mode of financing for the proposed project activity and substantiate the same with supporting documents.	A.4.3., B.2.1.	PP has used equity amount on the project. No debt component has been used. The same has been clearly mentioned in the board resolution submitted to DOE. Response 2: PP has provided the CA certificate to ensure that there is no public funding involved in the proposed project activity from Annex I countries.	1st Response : 1.PP states that no debt component involved in the project activity .However , PP is requested to provide the CA certificate to ensure that there is no public funding involved in the proposed project activity from Annex I countries. Hence, CL2 is not closed. 2nd Response : PP has submitted the CA certficate obtanined from Mehul vora &co ,chartered accountants, to support that there is no public funding involved in the project activity. The same is cross checked and found to be correct.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			Thus , CL2 is closed now.
CL3 During the validation process DOE indentified that the project is the debundled component of the large scale project activity. Hence, the PDD was re-webhosted under large scale activity (period 10/02/2012 to 10/03/2012). However PP is requested to clarify if they have Informed UNFCCC on the re-webhosting due change in the scale. If yes, kindly provide copy of the same.	B.5.3.2.	Intimation mail to UNFCCC for re-webhosting PDD was sent through DOE Response 2: PP has submitted the Intimation mail and ackwoledgement of UNFCCC & MOEF. Respsone 3: 1.PP has submitted the Intimation mail and ackwoledgement of UNFCCC & MOEF. For rewebhosting of the PDD the mail has went through DOE. 2.PP has corrected the prior CDM consideration date to 15 Sep 2011 in the revised PDD. 3.In section C.1.1 of the PDD, purchase order of the project activty has been made transparent	1st Response : 1.Intimation mail submitted to UNFCCC have not been submitted to the DOE. Therefore,CL3 is not closed. 2nd Response : 1.The Justificaion/explanation provided by the PP is not clear to the DOE. Thus , PP is requested to provide the appropriate explanation . 2.Further , PDD refers to the prior consideration date as 14/09/2011. However , as per the copy of intimation mail ,it is 15/09/2011. the same is confirmed by the UNFCCC site also. Hence , PP is requested clarification . 3. In section , C.1.1. of the PDD , it is mentioned that start of the project activity is 30/06/2011(date of placement of purchase order) .However , PDD is not transparent on what the purchase order is placed . Hence,CL3 is not closed. 3rd Response : 1.PP has intimated to DNA and UNFCCC

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			on the prior consideration of CDM within 6 months from the start date of the project activity ,it complies with the guidance. Therefore , PP's justification and explanation is accepted by the team . 2.Revised PDD is updated with the prior consideration date as 15/09/2011 . The same is matching with the copy of intimation mail& acknowledge mail of DNA &UNFCCC. Hence,accepted. 3.The revised PDD refers to" date of placement of purchase order of the project activty". The same is cross verified with the PO raised by the PP and found to be matching . Hence, accepted. Referring to the above points,CL3 is closed now.
CL4 PP is requested to provide the actual value of all the parameters for cross-checking.. PP is requested to submit the supporting documents and clarification for the following: i)O& M charges ii)Escalation in O&M expenses. iii) Details of actual costs incurred to date- copies of invoices, bank statements etc. iv). Copy of the audited accounts of the PPs from the year of decision making. v) Support for all the tax assumptions used. vi) PP is requested to provide financials with actual cost.		PP has submitted all the documents to the DOE pertaining to parameters used in the IRR calculation. PP has submitted all the supporting documents to the DOE of the input values used for IRR calculation. i.) Supplier Offer letter submitted ii.) The escalation figure in O & M calculation has been referred from the supplier offer. iii.) Purchase Order has been submitted in order to get the exact project cost. Audited account reports for the FY 2011 – 2012 is still under process.	1st Response : PP has submitted/provided the CA certificate for the project cost for the proposed project activity .the same is not consistent with the purchase order placed for the project activity.hence , PP is requested clarification . As per the supplier letter the O&M charges will be free of cost for one year. Escalation in O&M expenses is referred in the offer letter. Please refer to point 1. Further , PP is

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
vii) Supporting document for the insurance cost considered to be provided. viii) As per the investment analysis sheet, PP has considered 6.17lac as the O&M cost and is sourced from the Enercon's offer. However as per the document submitted by PP, O&M cost is 6.20lacs per WEC per annum. ix) PP is requested to submit the actual insurance. x)PP is requested to submit the CA certificate to support the "means of finance "that is own source. xi) PP is requested to provide links for all tax rates xii) Supporting document for decision making		Tax assumption has been used as per the Income tax act FY 2011 & 2012. Financials which actual cost has been submitted to the DOE. Insurance quote has been submitted to the DOE The O & M cost has been revised as per the offer letter submitted to the DOE. Actual insurance is under process CA certificate has been submitted to the DOE PP has provided the link of all the tax rate Board Resolution copy submitted Response 2: PP has rechecked the CA certificate and found that the project cost for the proposed project activity in CA certifcate & in the purchase order placed are consistent. V) PP has provided the webmink of the tax assumption as per the income tax act FY 2011 & 2012 in the PDD under section B.5 vii.) Insurance quote has been submitted to the DOE. Response 3: 2 iii) PP has submitted the purcahse order copy inorder to get the actual cost of the project activty. Further PP has also submitted the copy of CA certifcate inorder to cross check the total cost of the project activity. Also Enercon (WEC	requested to submit thecopy of major invoices,payments,and bank statements for the project activity. As per the PP's explanation audited account reports for the FY 2011-2012 is still under progress . PP has taken the tax assumption as per the income tax act FY 2011 & 2012.However , PP is requested to submit the weblinks/documents for the same. Please refer to point 1. Supporting document as stated by the PP is not yet submitted for insurance cost. That is the copy of insurance document from the insurance provider as referred in the IRR sheet. O&M cost is corrected in the IRR sheet . The same is cross verified with the offer letter and found to be inline. Actual insurance is under process as per the PP's justification. The CA certificate is not provided to support the means of finance " that is own source . PP is yet to provide the links for all the tax rates used in the IRR calcualtions. PP has submitted the copy of board resolution ,dated 20/05/2011 to substantiate the decision making date for the proposed project activity . The same is accepted by the team. Referring to the above points, CL4 is not closed . 2nd Response :

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		supplier) has sold WECs other than this project activity to the PP. Enercon raise Therefore the copy of invoices, payments,and bank statements are not required and also thes documents are highly confidentail and cannot be submitted in public. vii) As per the insurance quote submitted to the DOE, the insurance rate is 1.2 per thousand/mille. When we convert the same into percentage it will be 0.12% which has been referred in the IRR calculation sheet. X) CA certificate has been submitted to the DOE Xii) PP has provided the links for the tax rates used in the IRR calculation. Response 4: vii) PP has provided the explanation regarding insurance quote in the PDD & in IRR sheet.	The team has cross checked the CA certificate and PO placed for the WEC's and noted that the project cost is consistently mentioned in both the documents . Hence ,accepted. iii)_ PP is requested to provide the justification/explantion for the respective queries raised. v) PP has provided the weblink for the tax assumption as per the income tax act FY 2011 &2012 in the PDD in section B.5..hence ,accepted. vii) PP is requested to explain further on the insurance quote provided as team does not agree the quote provided to the % used. Thus , PP is requested explanation x) No justifcation or explantion is provided by the PP. xi) No jusitficiation or explantion is provided by the PP. Referring to the above points, CL4 is not closed. 3rd Response : 2.iii) PP's justification/explanation is accepted by the team . Further , certifcate for the project cost is issued/authorized by the chartered accoutants . Hence,

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			accepted . vii) PP has given the explanation on the insurance quote provided .However , PP is requested to make the same transparent in the revised PDD. x) PP has submitted the CA certificate to support the source of fiancing . The same is verified and accepted by the team . xi) PP has provided the links for all the tax rates used in the IRR calculations sheet, Thus,accepted . Referring to point 2 vii) , CL4 is not closed. 4th Response : Vii) PP has explained the insurance quote transparently in the PDD as well as in the ER sheet. Thus, CL4 is closed.
CL5 PP is requested to submit the copy of JMR received from the Tamilnadu electricity board.		PP has submitted the copy of JMR received from the Tamilnadu electricity board. Response 2: PP has submitted the sample copy of JMR.	1st Response : 1.It is not yet submitted to DOE.hence , CL5 is not closed. 2nd Response : PP has submitted the copy of JMR for the WEC ,HTSC nos 3916& 3917 . The same has been cross checked and accepted by the team.

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
			Thus ,CL5 is closed now.
CL6 1. As per the webhosted PDD, The operational lifetime of the project activity is 20 years. However, PP is requested to substantiate the same with the supporting evidences	C.1.2.	PP has submitted the E-53 manual and undertaking from the supplier regarding the operational lifetime of the project activity Response: PP has submitted the manual of E-53	1st Response : 1 .PP is requested to submit the E-53 manual as per explanation /justification given . Thus,CL6 is not closed. 2nd Response : PP has submitted the life time certificate obtained from the Enercon India (the supplier) to support the life time of the project activity . the same is verified and accepted by the team . Thus,CL6 is closed.
CL7 PP is requested to provide the details on the environmental analysis of the project activity along with the transboundry impacts due to the project activity as per the CDM modalities and procedures Para 37(C) dated 30/03/2006.Further , PP is requested to clarify on how the solid and hazardous waste from wind mills are disposed, PP is requested to submit all applicable legal and statutory approvals.	D.1.1.,D.1.4.	There is no mention of acquiring Environmental Clearance for Wind Power projects in the latest Notification of Ministry of Environment and Forests (MoEF), Government of India, dated 1st December, 2009 (Web link: http://moef.nic.in/downloads/rules-and-regulations/3067.pdf). In the Schedule 1 of Ministry of Environment and Forests (Government of India) notification dated January 27, 1994 and EIA Notification (S.O 1533) dated 14th September, 2006 (Web link:	1st Response : 1. PP's explanation and justification is not accepted by the team .Thus, PP is requested to provide the details on the environmental analysis of the project activity along with the transboundry impacts due to the project activity as per the CDM modalities and procedures Para 37(C) dated 30/03/2006. 5.1.1

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
		http://envfor.nic.in/legis/eia/so1533.pdf), a list of activities that require acquiring environmental clearance has been provided. According to those notifications, Environmental Impact Assessment (EIA) is not a regulatory requirement in India for wind energy projects and the PP does not expect any adverse impacts of the proposed CDM project activity on the environment. This has also been incorporated in the revised PDD (section D). Resposne 2: 1. The details on the environmental analysis of the project activity along with the transboundry impacts due to the project activity as per the CDM modalities and procedures Para 37(C) dated 30/03/2006 has been included in the revised PDD. 2. PP has submitted all the 18 NOC to the DOE	2. PP has submitted NOC/approval order for 17 WEC's from the Tamilnadu generation and Distribution Company limited. However, PP is requested to submit the approval order for remaining also. 5.1.2 5.1.3 Thus, CL7 is not closed. 2nd Response : 1.The details on the environmental analysis for the project activity along with the transboundary impacts due to the project activity is discussed now as per the CDM modalities and procedures Para 37(C) dated 30/03/2006 has been included in the revised PDD. 2. PP has submitted all the NOCs. The same were cross verified and accepted by the team . Hence , CL7 is closed now.
CL8 1. PP is requested to make it transparent in the PDD on the actual number of people who attended stakeholders meeting. 2. PP is requested to clarify on all the mode of invitation for the stakeholders meeting and include	E.1.2.	1. The numbers of people present during the meeting were 35 in numbers. The attendance sheet of the meeting has been submitted to the DOE. 2. Invitation of the meeting were sent through the newspaper advertisement that was placed on 4 October 2011	1st Response : 1.The actual number of people who were present during the stakeholders meeting is made transparent in the revised PDD. 2. As per the explanation provided by the PP , it is understood that invitation of the meeting were sent through the newspaper

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
the same in the PDD.		inviting the local stakeholders for the meeting. The same is already explained in the PDD. Response: PP has resubmitted the clear copy of the Newspaper.	,which was published in local newspaper (dhana thanthi) on 21/10/2011. The same is cross-checked with the copy of newsapaper submitted by the PP and found that the letters are not visible . PP is requested to resend the copy of newspaper for the better visibility. Hence ,CL8 is not closed. 2nd Response: 2. PP has submitted the copy of newspaper .the same is verified and accepted by the team. Thus , CL8 is closed.

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:

Rekha Menon

è qualificato come[1]:
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

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	06-03-2008	-
7	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

[1] Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS : Verified Carbon Standard:
TEC:	Technical Expert	GS: Gold Standard
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

RINA

CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra: **Kumar Praveen Krishnan**
We declare that Mr/Mrs/Ms:

è qualificato come[1]: **CDM (TEC,VAL,VER)**
is qualified as: **VCS, GS, SCS (TEC)**
GS–VAL, GS-VER

per le seguenti aree tecniche: **1.1, 2.2, 4.10, 13.1**
for the following technical areas:

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
2.2	Heat Distribution	2
4.10	Fuel switching and/or energy efficiency and/or waste heat/gas/pressure recovered and utilization for power generation at manufacturing industries	4
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	09-12-2010	-
5	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

[1] Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS : Verified Carbon Standard:
TEC:	Technical Expert	GS: Gold Standard
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

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:*	**Sreeraj Perne Narayanan**
è qualificato come[1]: *is qualified as:*	**CDM (-TEC, -VAL, -VER --FIN-EXP) VCS (–TEC, -VAL, -VER), GS (-TEC, -VAL, -VER), SCS (-TEC, -VAL, -VER) JI - TEC**
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	09-11-2010	-
3	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

[1] Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS : Verified Carbon Standard:
TEC:	Technical Expert	GS: Gold Standard
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

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:*	**Nisha Raghavan**
è qualificato come[1]: *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

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TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

RINA

CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra: *We declare that Mr/Mrs/Ms:*	**Naresh Badhwar**
è qualificato come[1]: *is qualified as:*	**CDM-TEC, CDM-VAL, CDM-TL, CDM-FIN-EXP, VCS-TEC, VCS-VAL, VCS-TL, GS-TEC, GS-VAL, GS-TL,**
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	06-06-2011	--
1	01-06-2012	Annual revision

Il Resp. QPT
Head of QPT

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FIN-EXP:	Financial Expert	JI: Joint Implementation
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:*	**Wing Yu Tong**
è qualificato come[1]: *is qualified as:*	**CDM-TEC, VCS-TEC, GS-TEC, SCS-TEC, JI-TEC, 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	04-12-2010	-
5	26-07-2012	Annual revision

Il Resp. QPT
Head of QPT

[1] Legend:

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VER:	Verifier	VCS : Verified Carbon Standard:
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TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

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