



# **VALIDATION REPORT**

## **3 MW CAPTIVE WIND PROJECT BY BHAGWATI SPHEROCAST PVT. LTD. IN GUJARAT IN INDIA**

Report No CCMS00253  
Report Version No 02

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## 0.1 ABBREVIATIONS

BAU	Business as usual
BE	Baseline Emissions
CAPM	Capital Asset Pricing Model
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CDM-PCP	Clean Development Mechanism Project Cycle Procedure
CDM-PS	Clean Development Mechanism Project Standard
CDM-VVS	Clean Development Mechanism Validation and Verification Standard
CEA	Central Electricity Authority
CER(s)	Certified Emission Reduction(s)
CERC	Central Electricity Regulatory Commission
CH <sub>4</sub>	Methane
CL	Clarification Request
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact assessment
ER	Emission Reductions
FAR	Forward Action Request
GEDA	Gujarat Energy Development Agency
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Limited
GHG(s)	Greenhouse gas(es)
GUVNL	Gujarat Urja Vikas Nigam Limited
GWP	Global Warming Potential
HCA	Host Country Approval
HT	High Tension
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
kWh	Kilo Watt Hour



LoA	Letter of Approval
MNRE	Ministry of New and Renewable Energy
MOC	Modalities of Communication Statement
MoEF	Ministry of Environment and Forests
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
MWh	Mega Watt hour
NEWNE	Northern, Eastern, Western, and North-Eastern
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PLF	Plant Load Factor
PP(s)	Project Participant(s)
PS	Project Standard
QC/QA	Quality control/Quality assurance
REC	Renewable Energy Certificate
Ref.	Document Reference
ROE	Return on Equity
SS(s)	Sectoral Scope(s)
SSC	Small Scale
TA	Technical Area within the Sectoral Scope
UGVCL	Uttar Gujarat Vij Company Limited
UNFCCC	United Nations Framework Convention on Climate Change
URS	URS Verification Private Limited
VVS	Validation and Verification Standard
WACC	Weighted Average of Cost of Capital
WTG	Wind Turbine Generator



## 0.2 EXECUTIVE SUMMARY AND CONCLUSION:

<b>Project Title:</b>		<b>Country:</b>	<b>Estimated CERs</b> (tCO <sub>2</sub> e):	
3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat		India	5,972 (annual average)	
<b>Client Name:</b>		<b>Client Contact:</b>		
Bhagwati Spherocast Pvt. Ltd.		Mr. Sanjiv Adhvaryu		
<b>URS Project Report No.:</b>		<b>Version:</b>		
CCMS/000253		02		
<b>Date of this Report:</b>		<b>Date of Approval:</b>		
26/04/2014		13/05/2014		
<b>Methodology:</b>				
<b>Number:</b>	<b>Version:</b>	<b>Scale:</b>	<b>SS(s) and TA:</b>	<b>Validation Opinion</b>
AMS I.D Grid connected renewable electricity generation	17 of 03/06/2011	Small Scale	SS1 & TA 1.2	Positive
<p>The project participant Bhagwati Spherocast Pvt. Ltd has commissioned URS to perform the validation of "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat".</p> <p>The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents. The information in these documents is reviewed against CDM Validation and Verification Standard, Version 5.0, Kyoto Protocol requirements, CDM Executive Board/ UNFCCC rules.</p> <p>URS is of the opinion that the project activity " 3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat", is as per PDD version 04 of 03/02/2014 meets all relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology. Therefore, it is requested that the project may be registered as CDM Project Activity.</p>				
<b>Work carried out by:</b> (Team Composition)		<b>Name</b>	<b>Role</b>	
		Manoj K. Srivastava Shilpy Gupta	Lead Assessor and Technical Area Expert (TA 1.2) Lead Assessor and Technical Area Expert (TA 1.2) (Till 15/11/2013)	
		Sandip Saha Rajeev Singhal	Assessor and Technical Area Expert (TA 1.2) Financial Expert	
<b>Independent Technical Review by:</b> (Internal Quality Control)				
		Naresh Badhwar	29/04/2014	
<b>Final Report Verified by:</b> (Scheme Manager)				
		Mukesh Singhal	13/05/2014	
<b>Document Distribution:</b>				
<input checked="" type="checkbox"/> No distribution without permission from the client or responsible organizational unit <input type="checkbox"/> Limited distribution <input type="checkbox"/> Unrestricted distribution				



## 1. INTRODUCTION

URS has been commissioned by “Bhagwati Spherocast Pvt. Ltd” to carry out validation of the project titled “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd in Gujarat” in “India”

This report summarizes the finding of validation including opinion on outcome of validation of the project “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat” performed on the basis of criteria as laid down by UNFCCC for CDM as well as criteria given to provide for consistent project operations, monitoring and reporting.

### 1.1 Objective

The objective of validation is to have an independent assessment and evaluation of project design by third party. This includes assessment and evaluation of project baseline, monitoring plan and project's compliance with relevant UNFCCC and host party applicable criteria are validated in order to confirm that project design, as documented, is sound and reasonable and meets the applicable identified criteria. Validation is requirement for all CDM projects and seen as necessary to provide assurance to stakeholders about the quality of project and its intended generation of certified emission reductions (CERs).

### 1.2 Scope

The validation scope is to have an independent and objective review of the project design document against the criteria as stated in article 12 of Kyoto protocol, the CDM modalities and procedures as agreed in Markesh accord, VVS /50/, the simplified modalities and procedure for small scale CDM project activities and relevant decision by CDM EB including the baseline monitoring methodology” AMS I.D: Grid connected renewable electricity generation (Version 17 of 03/06/2011)/53/.

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

### 1.3 Project Description

The proposed project activity is a wind power project activity with an aggregated installed capacity of 3 MW. The Project activity comprises installation of 2 WTGs of 1.5 MW (S – 82) manufactured by Suzlon Energy Limited /15/. The proposed CDM project activity is a Greenfield wind power project located at Vershamedi village, Taluka: Maliya Miyana in Rajkot district and Adodar village in Porbandar in the state of Gujarat. Purpose of the proposed project activity is to generate electricity by utilizing the wind power potential and usage of same in own industrial unit in Ahmedabad region for captive consumption by wheeling.

The estimated net electricity to be supplied by the project activity to the NEWNE grid is 6,268 MWh/annum and the annual estimated emission reduction will be 5,972 tCO<sub>2</sub>e annually. The electricity generated will be used for captive purpose i.e. supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling. The project has chosen a renewable crediting period of 7 years. The electricity produced will be displacing the grid electricity which would have been otherwise generated through sources dominated by fossil fuel based power plants. Thus the implementation of the project activity will reduce the GHG emissions which would have been generated through fossil fuel based electricity from grid.

### 1.4 Validation Team

The validation team consists of the following personnel:-



Name of Validation Team Members	Role
Manoj Srivastava	Lead Assessor and Technical Area Expert (TA1.2)
Shilpy Gupta	Lead Assessor and Technical Area Expert (TA1.2) (Till 15/11/2013)
Sandip Saha	Assessor and Technical Area Expert (TA1.2)
Rajeev Singhal	Financial expert

## 2. METHODOLOGY

The validation was conducted using URS procedures in line with requirements as specified in CDM M&P, applicable version of VVS /50/ and relevant decision of COP/MOP and the CDM EB by applying standard auditing techniques:

The validation consists of following three phases:

- Desk review of project design including baseline and monitoring plan.
- Follow up interviews with project stakeholder(s).
- The resolution of outstanding issues and the issuance of the final validation report and opinion on validation.

In order to ensure transparency and consistency a validation protocol was customized for the project according to latest version of VVS /50/. The protocol shows in transparent manner the criteria/requirements, means of verification and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- Organizes the details and clarifies the requirement which is expected to be met by CDM project.
- Ensures a transparent validation process where validator will document how a particular requirement has been validated and result of validation

The validation protocol is provided as Appendix1.

Following sections outlines each step in more details:

### 2.1 Document Review

The initial PDD version 01 dated 26/12/2012, revised PDD version 02 dated 19/03/2013, version 2.1 dated 25/06/2013, version 03 dated 02/08/2013 and version 04 dated 03/02/2014 submitted by "Bhagwati Spherocast Pvt. Ltd." The document review in particular includes applicability of selected methodology, the baseline determination, the additionality of project activity, the monitoring plan, the emission reduction calculations provided in the form of excel spread sheet.

The following documents were assessed or referenced as part of validation:

SI No	Name of the Document
/1/	<ul style="list-style-type: none"> <li>BSPL: CDM PDD for project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" in India, version 01 of 26/12/2012</li> <li>BSPL: CDM PDD for project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" in India, version 02 of 19/03/2013</li> <li>BSPL: CDM PDD for project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" in India, version 02.1 of 25/06/2013</li> <li>BSPL: CDM PDD for project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" in India, version 03 of 02/08/2013</li> <li>BSPL: CDM PDD for project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" in India, version 04 of 03/02/2014</li> </ul>





SI No	Name of the Document
/2/	<ul style="list-style-type: none"> <li>BSPL: Spread sheets for emission reduction calculation and grid emission Factor corresponding to /01/ dated 26/12/2012</li> <li>BSPL: Spread sheets for emission reduction calculation and grid emission Factor corresponding to /02/ dated 19/03/2013</li> <li>BSPL: Spread sheets for emission reduction calculation and grid emission Factor corresponding to /02.1/ dated 25/06/2013</li> <li>BSPL: Spread sheets for emission reduction calculation and grid emission Factor corresponding to /03/ dated 02/08/2013</li> </ul>
/3/	<ul style="list-style-type: none"> <li>BSPL: Spread sheets for Investment analysis (equity IRR) and sensitivity analysis corresponding to /01/ version 01 dated 26/12/2012</li> <li>BSPL: Spread sheets for Investment analysis (equity IRR) and sensitivity analysis corresponding to /01/ version 02 dated 19/03/2013</li> <li>BSPL: Spread sheets for Investment analysis (equity IRR) and sensitivity analysis corresponding to /01/ version 02.1 dated 25/06/2013</li> <li>BSPL: Spread sheets for Investment analysis (equity IRR) and sensitivity analysis corresponding to /01/ version 03 dated 02/08/2013</li> <li>BSPL: Spread sheets for Investment analysis (equity IRR) and sensitivity analysis corresponding to /01/ version 04 dated 03/02/2014</li> </ul>
/4/	<ul style="list-style-type: none"> <li>BSPL: Spread sheet for Investment analysis (Project IRR) and sensitivity analysis corresponding to /01/ version 01 dated 02/08/2013</li> <li>BSPL: Spread sheet for Investment analysis (Project IRR) and sensitivity analysis corresponding to /01/ version 02 dated 03/02/2014</li> </ul>
/5/	Ministry of Environment & Forests, Government of India, DNA; Host country approval letter no 04/12/2012-CCC dated 11/10/2012
/6/	Suzlon Energy Limited: Technical Specification provided by the Suzlon (S -82) for 1500 kW
/7/	<ul style="list-style-type: none"> <li>BSPL: Minutes of Meeting on Board resolution for 1500 kW WTG at Maliya Miyana dated 28/04/2009</li> <li>BSPL: Minutes of Meeting on Board resolution for 1500 kW WTG at Adodar dated 29/09/2010</li> </ul>
/8/	URS: Validation contract in between URS and Bhagwati Spherocast Pvt. Ltd. for the project "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" dated 17/12/2012
/9/	<ul style="list-style-type: none"> <li>BSPL: Intimation to UNFCCC for WTG-1 (VM-02) for serious CDM consideration on 29/09/2009</li> <li>BSPL: Revised intimation to UNFCCC for WTG-1 (VM-02) for serious CDM consideration on 06/02/2010</li> <li>BSPL: Intimation to UNFCCC for WTG-2 (ADO-30) for serious CDM consideration on 25/08/2010</li> <li>BSPL: Revised intimation to UNFCCC for WTG-2 (ADO-30) for serious CDM consideration on 02/11/2010</li> <li>BSPL: Intimation to NCDMA for WTG-1 (VM-02) for serious CDM consideration on 29/09/2009</li> <li>BSPL: Intimation to NCDMA for WTG-2 (ADO-30) for serious CDM consideration on 25/08/2010</li> <li>BSPL: Revised intimation to NCDMA for WTG-2 (ADO-30) for serious CDM consideration on 02/11/2010.</li> </ul>
/10/	<ul style="list-style-type: none"> <li>UNFCCC: Acknowledgement from UNFCCC for Prior consideration of CDM for WTG-1 dated 29/10/2009</li> <li>UNFCCC: Acknowledgement from UNFCCC for Prior consideration of CDM for WTG-2 dated 08/09/2010</li> <li>UNFCCC: Acknowledgement from UNFCCC for Prior consideration of CDM for WTG-2 dated 25/11/2010</li> </ul>
/11/	<ul style="list-style-type: none"> <li>Gujarat Energy Development Agency: Permission for WTG-1 by GEDA (Gujarat Energy Development Agency) GEDA dated 04/09/2009 with reference Number GEDA/PWF/SGWPL-BSPL/Maliya/09-10/2773</li> <li>Gujarat Energy Development Agency: Permission for setting dated 02/12/2010 reference Number GEDA/PWF/SGWPL-BSPL/Adhodar/10-11/3453</li> </ul>
/12/	GETCO: GETCO execution of an agreement dated 05/12/2009 with reference Number





SI No	Name of the Document
	<p>ACE(RC)/EE-C/3722</p> <ul style="list-style-type: none"> <li>GETCO: GETCO execution of an agreement with reference Number CE(RC)/EE-C/DE-1 dated 27/12/2010.</li> </ul>
/13/	<ul style="list-style-type: none"> <li>Suzlon Energy Ltd: Offer letter to BSPL for supply of 1 no. of S-82 Suzlon 1500 kW WTG dated 15/04/2009</li> <li>Suzlon Energy Ltd: Offer letter to BSPL for supply of 1 no. of S-82 Suzlon 1500 kW WTG dated 26/07/2010</li> </ul>
/14/	<ul style="list-style-type: none"> <li>Bank of Baroda: Letter from Bank of Baroda for Plant Load Factor for WTG-1 dated 13/08/2013</li> <li>Bank of Baroda: Letter from Bank of Baroda for Plant Load Factor for WTG-2 dated 13/08/2013</li> </ul>
/15/	<p><u>WTG-1</u></p> <ul style="list-style-type: none"> <li>BSPL: Purchase Order for supply of S-82 Suzlon 1500kW WTG issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Purchase Order for supply of tubular tower issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Purchase Order for supply of transformer issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Work order for civil work issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Work order for electrical work issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Work order for Erection &amp; Commissioning issued to Suzlon dated 16/07/2009.</li> <li>BSPL: Purchase order for acquiring freehold Land dated 16/07/2009</li> <li>BSPL: Land lease deed signed dated 20/08/2009 at Morvi between Sri Hirpara Nitesh Vasantbhai authorized signatory Sarjan Realities Limited and Mr. Jitendra mankad authorized signatory from Bhagwati Spherocast Private Limited</li> </ul> <p><u>WTG-2</u></p> <ul style="list-style-type: none"> <li>BSPL: Purchase Order for supply of S-82 Suzlon 1500kW WTG issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Purchase Order for supply of tubular tower issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Purchase Order for supply of transformer issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Work order for civil work issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Work order for electrical work issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Work order for Erection &amp; Commissioning issued to Suzlon dated 12/08/2010.</li> <li>BSPL: Amendment in Purchase Order dated 12/10/2010 issued to Suzlon</li> <li>BSPL: Amendment in Civil Work dated 12/10/2010 issued to Suzlon</li> <li>BSPL: Amendment in Erection &amp; commissioning dated 12/10/2010 issued to Suzlon</li> <li>BSPL: Land lease deed made at Porbandar dated 24/11/2010 signed between Suzlon Gujarat Wind Park Limited and Bhagwati Spherocast Private Limited.</li> <li>Purchase freehold with reference No 2010-11/1.5MW WTG dated 12/08/2010</li> </ul>
/16/	<ul style="list-style-type: none"> <li>GEDA: Certificate of commissioning for WTG-1 dated 12/10/2009 for 1.5 MW WTG with the reference No GEDA/PWF/SGWPL-BSPL/Maliya/09-10/4050, WTG ID NO-SEL/1500/09-10/1566 dated 01/10/2009.</li> <li>GEDA: Certificate of commissioning for WTG-2 for reference Number (GEDA/PWF/SGWPL-BSPL/Adodhar/10-11/3249) dated 22/02/2011 for Adodar site Suzlon for WEG ID Number SEL/1500/09-10/1913 dated 17/02/2011</li> </ul>
/17/	<ul style="list-style-type: none"> <li>United India Insurance Company Limited: Insurance of WTG-1 with policy Number 060700/46/10/39/00000124 for the period from 30/09/2010 to 29/09/2011 by United India Insurance Company Limited.</li> <li>United India Insurance Company Limited: Insurance for WTG-1 with policy number 060700/11/11/11/00000096 from 01/05/2011 to 30/04/2012 by United India insurance Company Limited.</li> <li>United India Insurance Company Limited: Insurance of WTG-1 with Policy Number 060700/11/12/11/00000075 from 01/05/2012 to 30/04/2013 from united insurance Company Limited.</li> <li>United India Insurance Company Limited: Insurance of WTG-2 with policy Number 060700/11/11/11/00000093 from 01/05/2011 to 30/04/2012 by United India Insurance Company Limited.</li> <li>United India Insurance Company Limited: Insurance of WTG-2 with Policy No</li> </ul>



SI No	Name of the Document
	060700/11/12/11/00000074 from 01/05/2012 to 30/04/2013 by United India Insurance Company Limited
/18/	<ul style="list-style-type: none"> <li>BSPL: Minutes of local stakeholder meeting at Vershamedi (Rajkot) and Adodar (Porbandar) site dated 07/10/2010 for the Project activity</li> <li>BSPL: List of attendees for Local Stakeholder Consultation meeting for Vershamedi and Adodar site dated 07/10/2010</li> <li>BSPL: Invitation pamphlet distributed by PP to local stakeholders' to attend the stakeholder meeting dated 20/09/2010.</li> </ul>
/19/	<ul style="list-style-type: none"> <li>Bank of Baroda: Loan Sanction Letter dated 07/09/2009 from Bank of Baroda with reference No (ASH/ADV/2009/073) for WTG-1</li> <li>Bank of Baroda: Loan Sanction Letter dated 30/10/2010 with reference number (GO:ACR:SME:JM:04) for WTG-2</li> </ul>
/20/	<ul style="list-style-type: none"> <li>BSPL: Agreement dated 30/12/2009 signed between Torrent Power Limited and Bhagwati Spherocast Private Limited</li> <li>BSPL: Agreement signed dated 12/02/2011 signed between Torrent Power Limited and Bhagwati Spherocast Private Limited.</li> </ul>
/21/	<ul style="list-style-type: none"> <li>BSPL: Modality of Communication (MoC) by the PP dated 26/07/2013</li> <li>The written confirmation that all entity related and personal details including specimen signature of officials signing the MoC are valid and accurate and they are duly authorized to sign MoC dated 26/07/2013</li> </ul>
/22/	<ul style="list-style-type: none"> <li>Suzlon infrastructure Services Limited: Maintenance (with parts and/ consumables) Agreement dated 26/02/2010 between Bhagwati Spherocast Private Limited and Suzlon Infrastructure Services Limited.</li> <li>Suzlon infrastructure Services Limited: Operation &amp; Maintenance (service only) Agreement dated 26/02/2010 between Bhagwati Spherocast Private Limited and Suzlon Infrastructure Services Limited.</li> <li>Suzlon infrastructure Services Limited: O&amp;M agreement dated 02/03/2011 signed between Bhagwati Spherocast Private Limited and Suzlon infrastructure Services Limited</li> <li>Suzlon infrastructure Services Limited: Maintenance (with parts and/ consumables) Agreement dated 02/03/2011 between Bhagwati Spherocast Private Limited and Suzlon Infrastructure Services Limited</li> </ul>
/23/	<ul style="list-style-type: none"> <li>Ministry of Environment &amp; Forests, Govt. of India.- Environmental Impact Assessment notification dated 14/09/2006 <a href="http://envfor.nic.in/legis/eia/so1533.pdf">http://envfor.nic.in/legis/eia/so1533.pdf</a></li> <li>Ministry of Environment &amp; Forests, Govt. of India.- Environmental Impact Assessment Amendment notification dated <a href="http://moef.nic.in/downloads/rules-and-regulations/3067.pdf">http://moef.nic.in/downloads/rules-and-regulations/3067.pdf</a> dated 01/12/2009</li> </ul>
/24/	BSPL: Certificate of incorporation No 2926 for the year 1976-1977 "Bhagwati Spherocast Private Limited"
/25/	<ul style="list-style-type: none"> <li>BSPL: 34th Annual report of Bhagwati Spherocast for the year 2009 -2010</li> <li>BSPL: 35th Annual report of Bhagwati Spherocast for the year 2010-2011</li> <li>BSPL: 36th Annual report of Bhagwati spherocast for the year 2011-2012</li> </ul>
/26/	<ul style="list-style-type: none"> <li>GERC Tariff order dated 11/08/2006 (<a href="http://www.gercin.org/renewablepdf/en_1303213122.pdf">http://www.gercin.org/renewablepdf/en_1303213122.pdf</a>) used as a reference for Debt Equity ratio, Loan tenure, moratorium period, repayment period and life time of WTG-1</li> <li>GERC Tariff order dated 30/01/2010 (<a href="http://www.gercin.org/renewablepdf/en_1303211765.pdf">http://www.gercin.org/renewablepdf/en_1303211765.pdf</a>) used as a reference Debt Equity ratio, Loan tenure, moratorium period, repayment period and life time of WTG-2</li> </ul>
/27/	Meheta Sheth & Associates: Undertaking provided by chartered accountant for No public Funding dated 25/05/2013
/28/	Suzlon Energy Limited: Technical lifetime of the project activity dated 05/03/2013
/29/	UNFCCC CDM Website: PDD of the project activity titled "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd.in Gujarat" published for global stakeholders consultation ( <a href="http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html">http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html</a> ) Webhosting period 03/01/2013 to 01/02/2013



SI No	Name of the Document
/30/	UNFCCC CDM Website: PDD of the project activity titled "Captive Wind Bundle Project" published for global stakeholders consultation ( <a href="https://cdm.unfccc.int/filestorage/U/O/P/UOPHA14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=SmZ8bjExYmx3fDBwYY4tlbTabvZsmW8gA26">https://cdm.unfccc.int/filestorage/U/O/P/UOPHA14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=SmZ8bjExYmx3fDBwYY4tlbTabvZsmW8gA26</a> ) Webhosting period 28/04/2011 to 27/05/2011
/31/	BSPL: Consultancy contract with Sunshakti Energy Solutions Private Limited and PP for CDM PDD development dated 11/02/2012
/32/	<ul style="list-style-type: none"> <li>Govt. Of Gujarat: Wind Power Policy 2007 <a href="http://geda.gujarat.gov.in/policy_files/Windpower%20Policy%202009_GEDA.pdf">http://geda.gujarat.gov.in/policy_files/Windpower%20Policy%202009_GEDA.pdf</a> used as reference for Transmission and Wheeling losses in Financial IRR calculations for WTG-1</li> <li>Gujarat Electricity Regulatory Commission: GERC Tariff Order dated 30/01/2010 <a href="http://www.gercin.org/renewablepdf/en_1303211765.pdf">http://www.gercin.org/renewablepdf/en_1303211765.pdf</a> used as a reference for Transmission and wheeling losses in Financial IRR calculation for WTG -2</li> </ul>
/33/	BSPL: Agreement dated 26/11/2009 signed between Agrinergy Pvt. Ltd and Bhagwati Spherocast Private Limited for development of CDM PDD.
/34/	BSPL: Email copy send from Bhagwati Spherocast Private Limited for the Termination of contract signed with Agrinergy dated 26/12/2011.
/35/	National CDM Authority of India: <a href="http://www.cdmindia.gov.in/project_details_view.php?id=1568&amp;oid=1&amp;page=11&amp;reporttype=1">http://www.cdmindia.gov.in/project_details_view.php?id=1568&amp;oid=1&amp;page=11&amp;reporttype=1</a> used as a reference to assess the host country approval issued by DNA
/36/	Govt. of India: <a href="http://law.incometaxindia.gov.in/DIT/File_opener.aspx?page=ITRU&amp;schT=rul&amp;csId=4a23cee1-1818-45d6-ab19-f155e08ed789&amp;rNo=&amp;sch=depreciation&amp;title=Taxmann%20-%20Direct%20Tax%20Laws">http://law.incometaxindia.gov.in/DIT/File_opener.aspx?page=ITRU&amp;schT=rul&amp;csId=4a23cee1-1818-45d6-ab19-f155e08ed789&amp;rNo=&amp;sch=depreciation&amp;title=Taxmann%20-%20Direct%20Tax%20Laws</a> used as a reference for IT Depreciation in Financial IRR Calculation
/37/	Ministry of Corporate Affairs: Explanatory memorandum review of schedule XIV to the companies act, 1956 <a href="http://asa-india.com/Depreciation%20Rates%20Companies%20Act.pdf">http://asa-india.com/Depreciation%20Rates%20Companies%20Act.pdf</a> used as a reference for book depreciation in Financial IRR calculation for both the WTG
/38/	Ministry of Finance, Govt. of India: <ul style="list-style-type: none"> <li><a href="http://law.incometaxindia.gov.in/Directtaxlaws/act2005/gr.htm">http://law.incometaxindia.gov.in/Directtaxlaws/act2005/gr.htm</a> used as a reference for income tax rate for WTG-1 in financial calculation for the financial year 2009-10</li> <li><a href="http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm">http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm</a> used as a reference for income tax rate for WTG-2 in Financial calculation for the financial year 2010-11</li> </ul>
/39/	Ministry of Finance, Govt. of India: <ul style="list-style-type: none"> <li><a href="http://indiabudget.nic.in/ub2009-10/bs/speecha.htm">http://indiabudget.nic.in/ub2009-10/bs/speecha.htm</a> used as a reference for MAT value for WTG-1 in financial calculation for the financial year 2009-10</li> <li><a href="http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm">http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm</a> used as a reference for MAT value for WTG-2 in financial calculation for the financial year 2010-11</li> </ul>
/40/	Ministry of Finance, Govt. of India: <ul style="list-style-type: none"> <li><a href="http://www.servicetax.gov.in/st-proc-home.htm">http://www.servicetax.gov.in/st-proc-home.htm</a> used as a reference for service tax for WTG-1 in financial calculation for the financial year 2009-10</li> <li><a href="http://www.servicetax.gov.in/ovw/ovw3_existing-scheme.htm">http://www.servicetax.gov.in/ovw/ovw3_existing-scheme.htm</a> used as a reference for service tax value for WTG-2 in financial calculation for the financial year 2010-11</li> </ul>
/41/	Ministry of Finance, Govt. of India: <ul style="list-style-type: none"> <li><a href="http://law.incometaxindia.gov.in/Directtaxlaws/act2005/gr.htm">http://law.incometaxindia.gov.in/Directtaxlaws/act2005/gr.htm</a> used as a reference for surcharge value for WTG-1 in financial calculation for the financial year 2009-10</li> <li><a href="http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm">http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm</a> used as a reference for surcharge value for WTG-2 in financial calculation for the financial year 2010-11</li> </ul>
/42/	Ministry of Finance, Govt. of India: <ul style="list-style-type: none"> <li><a href="http://indiabudget.nic.in/ub2009-10/fb/bill2.pdf">http://indiabudget.nic.in/ub2009-10/fb/bill2.pdf</a> used as a reference for education cess value for 600 kW project in financial IRR calculation for the financial year 2009-10</li> <li><a href="http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm">http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphlets/COMPANIES_2012_13.htm</a> used as a reference for education cess value for WTG-2 in financial calculation for the financial year 2010-11</li> </ul>
/43/	Reserve Bank of India:



SI No	Name of the Document
	<ul style="list-style-type: none"> <li>Survey of Professional Forecasters: Results of the Sixth Round (Q3:2008-09) <a href="http://www.rbi.org.in/scripts/PublicationsView.aspx?id=11306">http://www.rbi.org.in/scripts/PublicationsView.aspx?id=11306</a> used as a source for inflation forecast in benchmark for WTG-1</li> <li>Survey of Professional Forecasters: Results of Eleventh Round (Q4:2009-10) <a href="http://www.rbi.org.in/scripts/PublicationsView.aspx?id=12291">http://www.rbi.org.in/scripts/PublicationsView.aspx?id=12291</a> used as a source for inflation forecast in benchmark for WTG-2</li> </ul>
/44/	Aswath Damodaran: Corporate Finance, Theory and Practice (2nd Edition, 2009), chapter 11, page 320.
/45/	CDM Executive Board; Non-binding best practice examples to demonstrate additionality for SSC project activities" EB35 Annex 34
/46/	Actual generation for all WTGs for period October 2012 to November, 2013 for actual PLF
/47/	BVC: ISO Certificates (ISO9001:2008) provided by Bureau Veritas Private Limited to Bhagwati Spherocast Private Limited dated 24/11/2012
/48/	<ul style="list-style-type: none"> <li>CERC: Tariff Order by Central Electricity Regulatory Authority dated 01/02/2009 (<a href="http://cercind.gov.in/Regulations/Terms-and-Conditions-of-Tariff-Regulations_2009-2014.pdf">http://cercind.gov.in/Regulations/Terms-and-Conditions-of-Tariff-Regulations_2009-2014.pdf</a>) used for book depreciation and salvage value for WTG-1</li> <li>CERC: Tariff Order by Central Electricity Regulatory Authority dated 26/04/2010 (<a href="http://cercind.gov.in/2010/ORDER/February2010/53-2010_Suo-Motu_RE_Tariff_Order_FY2010-11.pdf">http://cercind.gov.in/2010/ORDER/February2010/53-2010_Suo-Motu_RE_Tariff_Order_FY2010-11.pdf</a>) used for book depreciation and salvage value for WTG-2</li> </ul>
/49/	BSPL: Mail to UNFCCC seeking clarification on prior consideration dated 03/12/2013.
/50/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 05.0 of 04/10/2013
/51/	CDM Executive Board: Clean Development Mechanism Project Standard, version 05.0, dated 04/10/2013
/52/	CDM Executive Board: Clean Development Mechanism Project Cycle Procedure, version 05.0 dated 04/10/2013
/53/	CDM Executive Board: Baseline and monitoring methodology "AMS I.D.", "Grid-connected renewable electricity generation", version 17 of 03/06/2011
/54/	CDM Executive Board: Guidelines on the demonstration of additionality of small-scale project activities, version 09.0 of Annex 27 EB 68 dated 20/07/2012
/55/	CDM Executive Board: Project Design Document Form for Small-Scale CDM Project Activities (F-CDM-SSC-PDD) version 4.1 dated 11/04/2012
/56/	CDM Executive Board: Guidelines on assessment of de-bundling for SSC project activities, version 03, Annex 13, EB 54 dated 28/05/2010 and version 3.1, dated 17/11/2011
/57/	CDM Executive Board: Glossary of CDM terms, version 07.0, Annex 7, EB 70 of 23.85/11/2012
/58/	CDM Executive Board: Guidelines on Assessment of Investment Analysis, version 05, Annex 5, EB 62, dated 15/07/2011.
/59/	CDM Executive Board; The F-CDM-MOC form for Modalities of Communications Statement version 02.1, dated 16/03/2012
/60/	CDM Executive Board: Guidelines for the reporting and validation of Plant Load Factors, version 01, Annex 11, EB 48 of 17/07/2009
/60/	CDM Executive Board: General Guidelines for SSC CDM methodologies, version 19.0 Annex 27 , EB 69 of 13/09/2012
/61/	CDM Executive Board; Guidelines for completing the simplified Project Design Document (CDM-SSC-PDD) and the form for proposed new small scale methodologies (CDM_SSC-NM), version 01.0, Annex 09 of EB 66
/62/	CDM Executive Board; CDM Executive Board; "Tool to calculate the emission factor for an electricity system" version 4.0.
/63/	CDM Executive Board; Prior consideration of the CDM form (F-CDM-PC), Version 02.0, Annex 6 of EB 66
/64/	UNFCCC Secretariat; Mail from UNFCCC to PP regarding clarification in prior consideration dated 16/01/2014.
/65/	BSPL: Declaration regarding latitude and longitude of the project activity dated 17/05/2012
/66/	Central Electricity Authority; CO2 Baseline data base for the Indian Power Sector User Guide Version 7 of Central Electricity Authority dated January 2012





SI No	Name of the Document
	( <a href="http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm">http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm</a> ) used as a reference in emission factor calculation (English Language) retrieved on 12/12/2012
/67/	<ul style="list-style-type: none"> <li>The Ahmadabad Electricity Company Limited: Electricity bill for the month of April-2004</li> <li>Torrent Power Limited: Electricity bill for the month of March-2009</li> </ul>
/68/	<ul style="list-style-type: none"> <li>Torrent Power Limited: Electricity bill for the month of June-2005</li> <li>Torrent Power Limited: Electricity bill for the month of June-2010</li> </ul>
/69/	BPLR of following nationalized banks used for benchmark calculation for WTG-1: <ul style="list-style-type: none"> <li>State Bank of India: BPLR of State Bank of India applicable from 01/01/2009 (<a href="http://www.moneycontrol.com/stocks/stock_market/corp_notices.php?autono=214647">http://www.moneycontrol.com/stocks/stock_market/corp_notices.php?autono=214647</a>)</li> <li>Punjab National Bank: BPLR of Punjab National Bank applicable from 13/04/2009 (<a href="http://articles.economictimes.indiatimes.com/keyword/plr/featured/3">http://articles.economictimes.indiatimes.com/keyword/plr/featured/3</a>)</li> <li>Bank of Baroda: BPLR of Bank of Baroda applicable from 06/03/2009 (<a href="http://www.business-standard.com/article/finance/bob-union-bank-cut-lending-rates-109030600094_1.html">http://www.business-standard.com/article/finance/bob-union-bank-cut-lending-rates-109030600094_1.html</a>)</li> <li>Union Bank of India: BPLR of Union Bank of India applicable form 07/03/2009 (<a href="http://www.business-standard.com/article/finance/bob-union-bank-cut-lending-rates-109030600094_1.html">http://www.business-standard.com/article/finance/bob-union-bank-cut-lending-rates-109030600094_1.html</a>)</li> <li>Allahabad Bank: BPLR of Allahabad Bank applicable from 05/01/2009 (<a href="http://www.moneycontrol.com/news/business/allahabad-bank-cuts-bplr-by-75bps_373838.html">http://www.moneycontrol.com/news/business/allahabad-bank-cuts-bplr-by-75bps_373838.html</a>)</li> </ul>
/70/	BPLR of following nationalized banks used for benchmark calculation for WTG-2: <ul style="list-style-type: none"> <li>State Bank of India: BPLR of State Bank of India applicable from 26/06/2009 (<a href="http://in.reuters.com/article/2012/08/13/india-plr-idINL4E8JD2BZ20120813">http://in.reuters.com/article/2012/08/13/india-plr-idINL4E8JD2BZ20120813</a>)</li> <li>Bank of Baroda: BPLR of Bank of Baroda applicable from 01/07/2010 (<a href="http://thebankingbible.com/historical-base-ratesbplrs-of-bank-of-baroda-4866">http://thebankingbible.com/historical-base-ratesbplrs-of-bank-of-baroda-4866</a>)</li> <li>Union Bank of India: BPLR of Union Bank of India applicable form 01/07/2010 (<a href="http://www.theteamwork.com/articles/2016-1717-current-home-loan-interest-rates-union-bank-india.html">http://www.theteamwork.com/articles/2016-1717-current-home-loan-interest-rates-union-bank-india.html</a>)</li> <li>Allahabad Bank: BPLR of Allahabad Bank applicable from 01/07/2010 (<a href="http://thebankingbible.com/historical-base-ratesbplrs-of-allahabad-bank-4797">http://thebankingbible.com/historical-base-ratesbplrs-of-allahabad-bank-4797</a>)</li> </ul>
/71/	India Wind Energy Outlook, 2012 used to cross check the PLF for the state of Maharashtra ( <a href="http://www.gwec.net/wp-content/uploads/2012/11/India-Wind-Energy-Outlook-2012.pdf">http://www.gwec.net/wp-content/uploads/2012/11/India-Wind-Energy-Outlook-2012.pdf</a> )
/72/	BSPL: Declaration for employment generation for the project activity
/73/	BSPL: Declaration for bebundling nature of the project activity.

## 2.2 Follow-up Actions

On 13/02/2013 & 14/02/2013 Shilpy Gupta (Team Leader and Technical Expert) visited the project site "Vershamedi & Adodara" to resolve question and issues identified during offsite review of documents and performed interviews with relevant stakeholders in the host country "India".

The personnel met during visit are summarized in the table below:

	Date	Name and Role	Organization	Topic
/a/	13/02/2013 (Maliya Miyana Site)	Mitesh Dhania	Assistant manager, SEL	Project Implementation, Investment decision, Prior CDM Consideration, Local Stakeholder Consultation Process, Monitoring Plan and Monitoring System, Quality Assurance/Quality Control and Environmental Impacts
/b/		Dharmesh Parmar	Junior Engineer, SEL	
/c/		Lakhman Bambhava	Engineer, SEL	
/d/		Shyam Dabhi	Engineer, SEL	
/e/		Vinod Rajparh	Executive, SEL	
/f/		Kurdik Saradva	Technician, Motabela	Sustainable development issues, Environmental Impacts
/g/		Dhirav Bhuvu	Local Villager	Sustainable development issues, Environmental Impacts



	Date	Name and Role	Organization	Topic
/a/	14/02/2013 (Adhodar Site)	Dipak K	Engineer, SEL	Project Implementation, Baseline Scenario, Additionality, Environmental Impacts, Local Stakeholder Consultation Process, Monitoring Plan and Monitoring System, Quality Assurance/Quality Control, Environmental Impacts and Emission reductions calculations
/b/		Raja Parmar	SEL	
/c/		Pankaj Kapadia	Senior Technician, SEL	
/d/		Chetan Shrigaditu	Engineer, SEL	
/e/		Deepak K Kumar	Local Villager	Sustainable development issues, Environmental Impacts
/f/		Arun Kumar	Local Villager	
/g/		Jayesh Kunduriya	Local Villager	
/h/		Isesta Ram	Local Villager	

## 2.3 Resolution of Outstanding Issues

The objective of this phase of validation is to resolve any outstanding issues which needed to be corrected and clarified to URS for URS's positive conclusion on project design. As an outcome of the validation process, the team can raise different types of findings as indicated below:

Corrective Action Request (CAR) is raised if one of following occurs:

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

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether applicable CDM requirement has been met.

A Forward Action Request (FAR) raised to highlight issues related to project implementation that requires review during first verification of the project activity. FAR shall not relate to CDM requirement for registration. CAR/CL/FAR identified are included in the validation protocol as Appendix-1 to this report.

This validation protocol consists of tables; the different columns in these tables are described as in below tables:

### Description of Validation Protocol tables:

**Table 1 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (CDM VVS -, and relevant paragraphs of CDM PCP):**

Requirements	Ref.	Validation Assessment	Conclusion
The Requirement checklist in table 1 are based on section E to J of CDM VVS and relevant paragraph of	Refers to the documents where the answer to the Requirements	The discussion on how the conclusion was arrived at and conclusion on compliance with Requirements	This is either acceptable based on evidence provided (ok), or Corrective Action Request (CAR) if requirement is not met. A clarification request is used



Requirements	Ref.	Validation Assessment	Conclusion
CDM PCP and is linked to the requirements the CDM project is expected to meet.	checklist is found		when the validation team has identified need for further clarification.

**Table 2 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (CDM VVS and relevant paragraphs of CDM PS):**

Checklist Questions	Ref.	MoV	Validation Assessment	Conclusion Draft Final
The Requirement checklist in table 2 are based on section K to N including section VIII of CDM VVS and relevant paragraph of CDM PS and is linked to the requirements the CDM project is expected to meet.	Refers to the documents where the answer to the Requirements checklist is found	Explain how conformance with Requirement is investigated. Examples are document review (DR), interview or follow up actions, cross checking with publicly available or other authentic document.	The discussion on how the conclusion was arrived at and conclusion on compliance with Requirements	For CAR, CL, FAR see definitions above. In the event of adequate information/evidence Ok is used to demonstrate compliance with CDM Requirements.

**Table 3 - Resolution of Corrective Action Requests and Clarification:**

Summary of Findings		CAR	CL	FAR	
		Total Number of CARs	Total Number of CLs	Total Number of FARs	
<b>Date:</b>	DD/MM/YYYY	<b>Raised by:</b>		Name of the assessment team member	
<b>Type of Finding</b>	CAR/ CL or FAR	<b>S. No. of Finding</b>	----	<b>Reference</b>	Reference of finding for example- page no of PDD.
<b>Details of the Finding:</b>		DD/MM/YYYY			
Findings for not meeting the Requirements/Checklist questions as per table 1 or 2 as applicable.					
<b>Project Participant Response</b>			DD/MM/YYYY		
(Response provided by the PP Please mention changes made to PDD)					
<b>Documents/ information provided by the Project Participant:</b>					
(Evidences/ documents provided by Project participant)					
<b>Reasoning for acceptance or non-acceptance:</b>			DD/MM/YYYY		
(Reasoning provided by Lead Assessor/ Assessor for acceptance or non-acceptance of the response provided by the project participant. Lead Assessor/Assessor shall validate the changes made by project participant with justification to PDD or other documents such as IRR, benchmark, emission reduction spreadsheet (as applicable) and CAR/CL shall be closed only if changes made with justification is accepted by Lead Assessor /Assessor and only if they meet CDM requirements)					
<b>Close out by Lead Assessor</b>			DD/MM/YYYY		



**Table 4 - Forward Action Requests (if no FAR the table 4 is deleted):**

Forward Action Request	Reference to table 2	Response by project participants and validation opinion
The FAR is raised in table 2 is repeated here	Reference to checklist question	Response by project participant on how FAR will be addressed and opinion of validation team.

## 2.4 Internal Quality Control

The validation report and its respective versions are underwent an Internal Quality Control through an Independent Technical Review (ITR).

ITR is an independent process performed to examine that the process of validation has been carried out in conformance with the requirements of validation scheme as well as URS validation procedures and the conclusion is justified. The technical review is performed by designated competent person, Independent Technical Reviewer, in accordance with URS qualification scheme for CDM validation and verification.

### Technical Review Team

Name	Role
Naresh Badhwar	Technical Reviewer and Technical Area Expert TA 1.2

## 3. VALIDATION CONCLUSIONS

The findings of validations are listed in following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in details in validation protocol in appendix-I.

The final validation findings relate to the project design as documented and described in the revised and resubmitted project design document "version 04 dated 03/02/2014/01/.

### 3.1 Approval and Participation

The PP has submitted, to the Validation team, the letter of approval issued by the Indian DNA, 'The Ministry of Environment & Forests' bearing Letter No. (4/13/2012-CCC) dated 11/10/2012. The title of the project activity and project participant in the HCA/05/ was verified against that in section A.4 of the PDD/01/ respectively and was found to be consistent and hence accepted.

The letter of approval confirms that:

- The Government of India has ratified the Kyoto Protocol on 26/08/2002 (<http://maindb.unfccc.int/public/country.pl?country=IN>) and hence is a Party to the Kyoto Protocol
- The HCA/05/ is an approval of voluntary participation in the proposed CDM project activity
- The project contributes to Sustainable Development in India
- The HCA/05/ refers to the precise proposed CDM project activity – "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat" – mentioned in the PDD/01/ being submitted for registration.

The letters of approval issued by Indian DNA is unconditional with respect to above and para 39 (a to d) of VVS/50/, ver 5.0. The host country for this project is India and has ratified the Kyoto Protocol on 26<sup>th</sup> August 2002 and established Ministry of Environment and Forests, Government of India as DNA. This was checked from the UNFCCC website <http://maindb.unfccc.int/public/country.pl?country=IN>. The project participant listed in section A.4 of the PDD/01/ is Bhagwati Spherocast Pvt. Ltd. and same is a private entity. The letter of approval was received from project participant. The HCA/05/ from the Indian DNA approves the participation of the project participant mentioned above; therefore the project participant is "Bhagwati Spherocast Pvt. Ltd." approved by the Party to Kyoto Protocol. Also, the project participant listed in tabular form in section A.4 of the PDD/01/ is consistent with the contact details provided in Appendix 1 of



the PDD/01/. The validation team also confirms that no entities other than those approved as project participant is included in section A.4 and Appendix 1 of the PDD/01/. No Annex I Party is involved in the project as a project participant.

In line with para 49 of VVS/50/ ver 5.0, participation of Bhagwati Spherocast Pvt. Ltd. is approved by DNA of India as evident from DNA approval letter. The DNA of India issued a Letter of Approval dated 11/10/2012 approving participation Bhagwati Spherocast Pvt. Ltd as project participant. As per paragraphs 45 to 48 of the VVS/50/ Version 05.0, the validation team is of the opinion that, the proposed CDM project activity meets all the relevant participation requirements. PP had provided the HCA/05/ issued by Ministry of Environment & Forests, Government of India to validation team. The Authenticity of the letter of approval has been confirmed by checking the original HCA/05/ letter and the project approval was also checked on the official website of National CDM Authority of India ([http://www.cdmindia.gov.in/project\\_details\\_view.php?id=1568&oid=1&page=11&reporttype=1](http://www.cdmindia.gov.in/project_details_view.php?id=1568&oid=1&page=11&reporttype=1)), and validation team have not found any reason to doubt its authenticity. By checking the submitted LoA/05/ validation team considers the LoA/05/ in accordance with paragraphs 39-42 of the VVS/50/ version 5.0. 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 project participant has also given a written declaration confirming that there is no usage of public funding/27/ in the project activity.

Project participant	Bhagwati Spherocast Pvt. Ltd
Parties involved	India
APPROVAL	
LoA received	Yes/05/
Date of LoA	11/10/2012
LoA received from	Bhagwati Spherocast Pvt. Ltd.
Validation of authenticity	Verified with original LoA/05/
Validity of LoA	Yes
PARTICIPATION	
Party is party to Kyoto Protocol	Yes
Voluntary participation	Yes
Project contribution to SD	Yes

### 3.2 Modalities of Communication

The MOC dated 26/07/2013 was provided by Bhagwati Spherocast Pvt. Ltd with whom URS has a contractual relationship which was verified against the project title and information mentioned in Appendix 1 of the PDD/01/ and found to be consistent and hence accepted.. The MoC statement has been furnished in the latest applicable MOC form F-CDM-MOC version 2.1.

The corporate identity of the PP (Bhagwati Spherocast Pvt. Ltd) and focal point included in the MoC statement, as well the personal identities, the signatures and the related authorized signatures, and the employment status have been cross-checked through the confirmation letter provided by the Bhagwati Spherocast Pvt. Ltd . The confirmation letter was submitted by official who was authorized to do so on behalf of Bhagwati Spherocast Pvt. Ltd. It is clearly mentioned in the confirmation letter that all corporate and personal details including specimen signature of official who signed as primary authorized signatory in MOC are valid and accurate. Hence the same was accepted by the validation team. Thus, the validation



team has checked the completed Modalities of the Communication form provided by the PP In line with para 53, 54 (c), and para 56 of VVS/50/ ver.05.0.

Thus, it is confirmed here in line with the requirement of para 58 of VVS/50/ version 5.0 that URS has performed due diligence on the MoC statement in accordance with the requirements established in the validation and verification standard version 5.0.

In conclusion, URS confirms that the MoC statement provided by the PP is in accordance with the requirements in para 53-55 as well it is in accordance with the requirements in para 60 of the CDM-VVS/50/. In line with para 60 of VVS/50/ ver.05.0, validation team confirms that MoC statement has been furnished in the latest applicable MOC form F-CDM-MOC version 2.1. The information required as per the F-CDM-MOC, including its annex 1, is correctly completed. The project participant's authorized signatories signing the F-CDM-MOC correspond to the project participant's authorized signatories included in F-CDM-MOC, annex 1.

URS has performed due diligence on the MoC statement in accordance with the requirements established in para 58 of VVS/50/ ver. 5.0 and the MoC statement complies with all relevant forms and requirements as per para 61 of VVS ver 5.0.

### 3.3 Project Design Document

The PDD/01/ for the project activity "3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat", in India, version 01 dated 26/12/2012, version 02 dated 19/03/2013, version 2.1 dated 25/06/2013, version 03 dated 02/08/2013 and version 04 dated 03/02/2014 /01/ submitted by Bhagwati Spherocast Private Limited have been the basis for the validation process.

URS is able to confirm that the above PDD/01/ is based on the currently valid is based on the currently valid PDD template "Clean Development Mechanism Project Design Document form (F-CDM-SSC-PDD)", version 04.1 dated 11/04/2012 and is completed in accordance with the applicable guidance document of "Guidelines for completing the project design document form for small-scale CDM project activities, version 1.1, dated 01/04/2013".

The main changes between the PDD/01/ version 01 dated 26/12/2012 published for GSC and the PDD/01/ version 04 dated 03/02/2014 submitted for registration are the following:

Subject and section in the PDD	Main changes in the revised PDD
Section A: Description of project activity	<ol style="list-style-type: none"> <li>1) Detailed technical specifications of the WTG is included in section A.3 which is found to be correct</li> <li>2) Electricity generation has been mentioned and the purpose of the project activity has been described more transparently and pre project scenario has been mentioned which is found to be correct in section A.1.</li> <li>3) Emission reductions have been revised as the grid emission factor has revised according to CEA database version 7 and it is found to be in line with tool to calculate emission factor for an electricity system.</li> <li>4) PP has incorporated the lifetime of the project activity in section A.3 of the PDD which is correct and it is as per GERC tariff order dated 30/01/2010.</li> </ol>
Section B: Application of selected approved baseline and monitoring	<ol style="list-style-type: none"> <li>1) Complete justification of applicability criteria of AMS I.D</li> </ol>



Subject and section in the PDD	Main changes in the revised PDD
methodology	<p>ver.17 have been included in section B.2 of PDD/01/ which is in line with the methodology.</p> <ol style="list-style-type: none"> <li>2) Complete justification of applicability of tool to calculate the emission factor of the electricity system /62/ has been incorporated which is found to be correct.</li> <li>3) Project Boundary has been revised in the section B.3 and description of the emission sources has been included which is found to be correct.</li> <li>4) Chronology on prior consideration and sources has been revised considering the clarification of prior consideration for WTG-1 which is found to be correct. Input parameters in investment analysis have been corrected. PP has now considered the input cost of all instruments and removed the insurance cost as same is not available during decision making and also not in line with prevailing GERC tariff order. Book depreciation, rate of income tax and rate of MAT are revised which have been checked and found to be correct. Further, IRR calculations have been corrected considering the revised documents and IRR value has been revised. In the Sensitivity has been further detailed and details that there is no likelihood of variations in key parameters for equity IRR to cross benchmark is mentioned.</li> <li>5) Emissions reduction calculation have been revised as emission factor has been corrected in line with CEA database ver 7 and the latest tool "Tool to calculate the emission factor for an electricity system", version 04 in section B.6 and PLF has been corrected as per letter from Bank of Baroda.</li> <li>6) Monitoring parameters have been revised in section B 7.1 and B.7.3 of the revised PDD/01/ as per the applied methodology AMS I.D version 17.0. Monitored parameters used to calculate net electricity supplied have been included.</li> </ol>
Section C: Duration and crediting period	<ol style="list-style-type: none"> <li>1) Start date of crediting period in section C.2.2 has been updated.</li> <li>2) Lifetime has been corrected in section C.1.2 and lifetime is mentioned as 25 years which is correct as per GERC order dated 30/01/2010.</li> </ol>
Section E: Local Stakeholder Consultation	<ol style="list-style-type: none"> <li>1) Local stakeholder process is elaborated in section E.1</li> <li>2) Summary of the comments received is also included.</li> </ol>

The two WTGs in this project were part of a bundled project in earlier webhosted PDD 'Captive Wind Bundle Project'. This project is listed under the category 'validation contract has been terminated' on UNFCCC website. The main changes between the PDD/30/ version 01 titled "Captive Wind Bundle



Project "dated 26/04/2011 published for GSC and the PDD/01/ version 04 dated 03/02/2014 submitted for registration are the following:

Subject and section in the PDD	Main changes in the revised PDD
Section A: Description of project activity	<ol style="list-style-type: none"> <li>1) In the old webhosted PDD, project was webhosted as a bundled project with other project developer. However, the bundled has been disintegrated and in this final submission, PP has independently gone for project registration.</li> <li>2) Emission Factor has been revised according to CEA database version 7 and it is found to be in line with tool to calculate emission factor for an electricity system.</li> <li>3) The lifetime has been revised as per GERC tariff order dated 30/01/2010 which is found to be correct.</li> </ol>
Section B: Application of selected approved baseline and monitoring methodology	<ol style="list-style-type: none"> <li>1) Complete justification of applicability criteria of AMS I.D ver.17 have been included in section B.2 of PDD which is in line with the methodology.</li> <li>2) Complete justification of applicability of tool to calculate the emission factor of the electricity system /62/ has been incorporated which is found to be correct.</li> <li>3) Project Boundary has been revised in the section B.3 and description of the emission sources has been included which is found to be correct.</li> <li>4) In the earlier webhosted PDD, WACC has been considered as the benchmark and project IRR as the financial indicator. However, in the revised PDD, PP has considered Return on Equity as the benchmark in line with default value mentioned in Annex 5 of EB62 and Equity IRR as the financial indicator. The validation team has also checked additionality considering WACC and project IRR as detailed in CAR 15 and even the project IRR is less than the WACC. Thus project is additional even if WACC is considered as benchmark and project IRR are considered as financial indicator. The changes in other parameters are detailed in CAR 15.</li> <li>5) Sensitivity has been further detailed and details that there is no likelihood of variations in key parameters for equity IRR to cross benchmark is mentioned.</li> <li>4) Emission Factor has been revised according to CEA database version 7 and it is found to be in line with tool to calculate emission factor for an electricity system. PLF has been corrected as per letter from Bank of Baroda.</li> <li>6) Monitoring parameters have been revised in section B 7.1 and B.7.3 of the revised PDD/01/ as per the applied methodology AMS I.D version 17.0. Monitored parameters used to calculate net electricity supplied</li> </ol>





Subject and section in the PDD	Main changes in the revised PDD
	have been included.
Section C: Duration and crediting period	1) Start date of crediting period in section C.2.2 has been updated.

### 3.4 Description of Project Activity

The proposed 3 MW wind power CDM project activity is a Green field wind power project activity comprising of 2\*1.5 MW WTGs. The WTGs are located at Vershamedi village, Taluka: Maliya Miyana in Rajkot district and Adodar village in Porbandar district in the state of Gujarat. The project will generate 6,268 MWh of electricity per year and the annual estimated emission reduction will be 5,972 tCO<sub>2</sub>e. The main purpose of the project activity is to generate electricity using wind energy, a renewable energy source, and supply the same to the PP's own plant via NEWNE grid for captive consumption to reduce the usage of grid electricity. The PP i.e. Bhagwati Spherocast Pvt. Ltd, is operating an industrial unit in Ahmadabad region, Gujarat and using grid electricity to meet the energy demand. The electricity generated by the WTGs would be wheeled to this industrial unit via NEWNE grid. This has been verified with the wheeling agreements signed by PP with Torrent Power Limited and GETCO. The project was implemented in two phases. In the first phase, WTG 1 of capacity 1.5 MW was installed in Vershamedi village, Taluka: Maliya Miyana in Rajkot district and in second phase WTG 2 of capacity 1.5 MW was installed in Adodar village in Porbandar district, Gujarat.

This technology is used to convert the energy contained in masses of moving air into rotating shaft power. The conversion process utilizes aerodynamic forces (lift and/or drag) to produce a net positive turning moment on a shaft, resulting in the production of mechanical power that can be converted to electrical power. The electricity generation from this technology depends on many factors i.e. the wind velocity and the grid availability. The plant load factor (PLF) considered for the WTGs is 23.85% in line with the letter from loan issuing bank. The commissioning certificate/16/ & wheeling agreement for the WTGs have been checked and found to be in order. The detailed locations of the WTGs under this project activity are mentioned below:

S.No	WTG I.D. number	Capacity (MW)	Date of Commissioning	LOCATION	Latitude	Longitude
1.	SEL/1500/09-10/1566	1.5	01/10/2009	Maliya Miyana, Vershamedi	N 22° 58' 07.8"	E 70° 34' 06.5"
2.	SEL/1500/10-11/1913	1.5	17/02/2011	Adodar	N 21° 34' 51.6"	E 69° 39' 50.3"

The date of commissioning mentioned in above table were verified with commissioning certificate/16/ and found to be correct. Technical specifications of WTG mentioned in PDD/01/ were verified with the technical specification/06/ provided by the WTG supplier and found to be correct. The latitude and longitude have been checked using website <http://itouchmap.com/latlong.html> and declaration from PP. The description of the project mentioned by the PP in the PDD was found to be accurate and complete.

The project will achieve emission reductions by importing electricity from the NEWNE grid of India, which is dominated by thermal power plants. The annual emission reductions are expected to be 5972 tCO<sub>2</sub>e and 41,804 tCO<sub>2</sub>e during the entire crediting period of 7 years.

The project falls under Type (i): Renewable Energy Projects, as the project activity involves generation of electricity using wind energy which is a renewable energy, and Category D, Grid connected Renewable Electricity Generation as the generated electricity by the project will be exported to the grid. Hence according to simplified modalities and procedures for small-scale CDM project activities the type and category of the project activity has been correctly identified in the PDD.

The project activity does not involve any modification or retrofitting an existing system and the WTG installed as part of the project activity are new as confirmed from purchase orders.



URS confirms that the technology implemented reflects the current good practice in the host country. Implementation of the project activity doesn't involve any technology transfer from Annex-1 countries to host country. The technology given in the PDD is consistent with the actual planning and implementation of the project activity. The validation team confirmed the installation, the manufacturer, and capacity through inspection of the WTG during the site visit and cross verifying with the purchase order, commissioning certificate/16/, wheeling agreement with the state utility. The annual energy generation of the project is estimated to be 6,268 MWh/year based on PLF of 23.85%. PP has considered PLF from the letter from the loan issuing bank which states that PLF of 23.85% was considered by the bank for both WTGs. Hence the validation team agrees with the PLF as it is in line with Annex 11 of EB 48.

PP has issued the purchase orders to the WTG supplier on 16/07/2009 for the first WTG and PP has considered the purchase order date as the start date of the project activity. It has been verified by validation team that the start date represents the earliest date on which the project participant has taken real actions towards the project activity as per the Glossary of CDM Terms version 07.0, Annex 7, EB 70. The WTGs included in project activity are under operation and commissioned on 01/10/2009 and 17/02/2011 respectively. The expected operational life time of the project activity is 25 years and the same has been verified from the GERC tariff order dated 30/01/2010. The wheeling agreement is also signed for 25 years with Torrent Power Limited for second WTG. Thus the lifetime of 25 years is acceptable to the validation team. A renewable crediting period of 7 years has been chosen for the project, starting from 15/05/2014 or the date of registration, whichever occurs later.

The contribution towards sustainable development by project activity is described under social well being, economic well being, environment well being, and technological well being in section A.1, of the latest 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 in line with sustainable indicators of the host country (India). Further, the proposed project activity contributes towards sustainable development as confirmed through the HCA.

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

### 3.5 Selected Baseline and Monitoring Methodology

#### 3.5.1 Application of Selected Baseline and Monitoring Methodology

The proposed project activity is a 3 MW grid connected wind power project located in Gujarat in India. The project applies approved small scale baseline and monitoring methodology "Grid connected renewable electricity generation/53/"; Version 17. (<http://cdm.unfccc.int/methodologies/DB/RSCTZ8SKT4F7N1CFDXCSA7BDQ7FU1X>). The following steps have been undertaken for assessing the applicability conditions of the methodology:

Applicability of AMS I.D/53/. Version 17 is illustrated as below:

**Para 1** "This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:

- (a) Supplying electricity to a national or a regional grid; or
- (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling"

The proposed CDM project activity is a Green field 3 MW wind power project comprising of 2x1.5 MW, WTGs. The main purpose of the project activity is to generate electricity using wind energy, a renewable





energy source, and use it for captive purpose which would have been otherwise generated through sources dominated by fossil fuel based power plants. Electricity generated is wheeled to industrial unit of PP In Ahmedabad region through NEWNE grid which displaces grid electricity at the industrial unit. This has been verified with the purchase orders and wheeling agreement. This has also been verified during the site visit and found to be acceptable. Hence, the project activity complies with the applicability criteria 1 of the baseline and monitoring methodology AMS I. D/53/. Version 17.

**Para 2,** *“Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A2) applies is included in Table 2.”*

The proposed CDM project activity is a Greenfield 3MW wind power project. The main purpose of the project activity is to generate electricity using wind energy, a renewable energy source, and usage of same for captive purpose. In absence of the project activity the same amount of the electricity would have been imported from the NEWNE grid dominated by fossil fuel based power plants. The validation team has checked 3 year electricity bills of the industrial unit where electricity is wheeled and source of electricity at the industrial unit was grid in absence of project activity. Thus wheeled electricity displaces grid electricity. Thus, the project activity complies with the requirement of the methodology AMS I. D/53/ as per the illustration provided in the Table 2 of the applied baseline and monitoring methodology AMS I. D. version 17/53/.

**Para 3,** *“This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).”*

The project activity involves the installation of a new wind power plants where there was no renewable energy power plant operating prior to the implementation of the project activity at both the sites. The proposed CDM project activity is a Greenfield project activity which is evident from the purchase orders and the commissioning certificates/16/. This has also been verified during the site visit. Hence, the project activity meets the applicability criteria.

**Para 4 –** *“Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:*

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

The project activity involves the use of wind energy for the generation of electricity. As it is not a hydro power plant, this criteria is not applicable to the project activity under consideration.

**Para – 5,** *“If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.”*

The project activity envisages the uses of renewable energy only i.e. wind energy and there is no non renewable component in the project activity. The total installed capacity of this wind power project is 3 MW which is less than the threshold capacity limit of 15 MW for a small scale project activity. The capacity of project is verified from the purchase orders and the commissioning certificates/16/ found to be correct.



**Para – 6,** *“Combined heat and power (co-generation) systems are not eligible under this category.”*

The project activity is a wind energy project. The project activity is not a cogeneration system and this has been verified during the site visit. Same has been checked with the purchase orders and commissioning certificates of the WTGs. Thus, this applicability criteria is not applicable to this project activity.

**Para – 7,** *“In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.”*

The proposed CDM project activity is a Greenfield project activity which is evident from the purchase orders and does not involve the addition of renewable energy generation units at an existing renewable power generation facility at both sites and it has also been verified during the site visit.

**Para – 8,** *“In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.”*

The Purchase orders/15/ for the windmill indicates that the windmills are new and does not involve retrofit and/or replacement, modifications to the existing equipment. Thus, this applicability criteria is not applicable to this project activity.

Thus, all the applicability criteria of AMS I. D/53/, version 17 have been duly addressed and justified. Hence, from the above discussion, it has been confirmed that the applicability of the selected methodology AMS I.D., version 17 to the proposed project activity was found to be reasonable and acceptable.

According to the “Guidelines on assessment of de-bundling for SSC project activities” the project activity is not a de-bundled component of a large project activity as there is no registered small-scale CDM project activity or an application to register another small-scale CDM project activity with the same project participant in the same project category and technology/measure within the previous two years whose project boundary is within 1 km of the project boundary of the proposed small-scale project activity at the closest point as stated in the revised PDD/01/ version 04 , the same was verified during the site inspection of project and confirmed.

As stated above, the project capacity is 3 MW which is less than limit of 15 MW as specified in General Guidance to SSC CDM methodologies. The small scale methodology AMS-I.D version 17 is applied in conjunction with General Guidance to SSC CDM methodologies.

Based on the document review and on-site visit, validation team hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for registration.

### 3.5.2 Project Boundary

Paragraph 9 of the selected methodology AMS I.D, version 17 states that *“the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to.”*

The PP has appropriately described the project boundary in section B.3 of the PDD. PP has included the WTGs, sub-station, monitoring points, NEWNE grid of India to which the proposed project activity



evacuates power and the industrial unit where generated electricity would be used. This was verified during the site visit and through the commissioning certificate/16/, wheeling agreements. PP has appropriately identified the NEWNE grid of India for calculation of electricity emission factor as the wheeled electricity displaces an equivalent amount of electrical energy from the NEWNE grid. Thus, emission factor for NEWNE has been identified as per the CEA database version 07 available at the time of PDD publishing for the Global stakeholder consultation.

The energy generating equipments i.e. WTGs are new and they are not transferred from another activity. The same was verified during site visit and also verified from review of purchase orders/15/ and commissioning certificates/16/. Hence in line with para 22 of AMS-I.D version 17 there are no leakage emissions. The electricity imported by the project activity is accounted in the net electricity exported by the project activity,  $EG_{BLy}$ . There are no other sources of project emissions. Hence, in line with the methodology, project participant has considered project emissions as zero for renewable wind power project.

The diagrammatic description of the project boundary delineated in section B.3 of the PDD correctly describes the project boundary.

	GHGs involved	Description	Justification
Baseline emissions	CO <sub>2</sub>	Net electricity delivered to the grid by the project activity where GHG emission occur due to fossil fuel based power plants	The wheeled electricity displaces grid electricity. In the baseline scenario, equivalent amount of electricity would have been delivered by mainly fossil fuel power plants connected to NEWNE & grid resulting in CO <sub>2</sub> emissions. Hence the same is accepted by the validation team.
Project emissions	NA	No project emissions are envisaged in the project activity as per the methodology.	In line with methodology, there are no project emissions for wind energy projects; hence the same is accepted by assessment team. Further, the electricity imported by the project activity is accounted in the net electricity exported by the project activity. There are no other sources of project emissions. Hence, in line with the methodology, assessment team confirmed that project participant has appropriately considered project emissions as zero for renewable wind power project.
Leakage	NA	No Leakage, since there is no transfer of equipment	There is no transfer of equipment. WTG is new as verified during site visit and also verified from review of purchase orders/15/ and commissioning certificates/16/. Hence, in line with the methodology, assessment team confirmed that project participant has appropriately not considered leakage for this project activity.

There are no emission sources, which will be affected by the implementation of the proposed project activity and are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction. The project activity is a wind energy project and during site visit no other sources were observed which are not addressed by methodology.



During the site visit, the project boundary was physically verified and found to be correct and in line with methodology. Based on the document review and site visit, validation team confirms that the project boundary and emission sources described in the PDD are accurate and complete, and also that the selected sources and gases are justified for the proposed project activity validation team further confirms that identification of project boundary is in line with paragraph 83-85 of VVS/50/ version 5.0 and validation team confirms that identification of project boundary is in line with selected methodology AMS-I.D version 17.

### 3.5.3 Baseline Scenario Identification

The main purpose of the project activity is to generate electricity using wind energy, a renewable energy source, and usage of same for captive purpose. The validation team has checked 3 year electricity bills of the industrial unit where electricity is wheeled and source of electricity at the industrial unit was grid in absence of project activity. Thus wheeled electricity displaces grid electricity. According to the para 10 of approved baseline and monitoring methodology “AMS-I.D”, “Grid connected renewable electricity generation”, version 17 of 03/06/2011 the baseline scenario is the *“electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”*. Since the approved methodology specifies the baseline scenario, no further analysis is required on the identification of alternative according to paragraph 115 of the VVS/50/ version 05.

Assessment team has checked all the documented evidences such as CO<sub>2</sub> Baseline Database for the Indian Power Sector user guide, version 07, applied methodology AMS-I.D, version 17 of 03/06/2011, revised PDD version 04 /01/ and the emission reduction calculation spreadsheet during the validation process and confirmed that all the assumptions and data used by the project participant which is listed in the PDD version 04 including their references and sources, the approved baseline methodology AMS ID, version 17 dated 03/06/2011 have been correctly applied to identify the most reasonable baseline scenario. The identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

The baseline emission is the electricity produced by the renewable generating unit multiplied by grid emission factor (measured in tCO<sub>2</sub>e/MWh) calculated in transparent and conservative manner. The PP has considered the baseline in line with what is prescribed by the methodology. The emission factor is calculated as a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM). The grid emission factor has been calculated by using the CEA database version 07 and it is based on “Tool to calculate the emission factor for an electricity system” /62/, version 04.

According to the “Tool to calculate the emission factor for an electricity system /62/, the weighting of OM and BM have been taken as 75:25 owing to their intermittent and non dispatchable nature. The combined margin emission factor for the NEWNE grid of India has been calculated to be 0.9528 tCO<sub>2</sub>e/MWh.

Validation team confirmed that the CEA database version 07 used for the calculation of combined margin emission factor for the NEWNE of India was latest data available at the time of the commencement of validation, and is in line with the requirement of “Tool to calculate the emission factor for an electricity system” /62/, version 04 and is an official publication of the Government of India for the purpose of CDM project activities.

According to Para 94 of VVS/50/ 05.0, assessment team has verified all the documented evidence listed above during the validation process and is able to confirm that:

- a) All the assumptions and data used by the project participant is listed in the PDD, including their references and sources



- b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD. Baseline is as prescribed by methodology
- c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and deemed to be reasonable;
- d) The approved methodology AMS-I.D has been correctly applied to identify the most reasonable baseline scenario as the electricity delivered to the grid by the project activity that otherwise would be generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. The methodology prescribes baseline for new grid connected power plants and same is mentioned in PDD hence accepted.

### 3.5.4 Algorithms and/or formulae used to determine emission reductions

As required under para 11 of AMS-I.D, version 17, project participant has calculated the baseline emissions by multiplication of the electricity supplied by the project activity to the regional grid and the grid emission factor calculated in line with “Tool to calculate emission factor for an electricity systems” /62/, ver 4.0. The detailed algorithms are described later under sections B.6.1 of the PDD and calculations are shown in section B.6.3 of PDD/01/.

Validation team assessed the calculations of estimated emission reduction as provided by the project participant in a spread sheet. The formulas and equations used for the estimation of baseline emissions are as follows:

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

:

Where:

- BE<sub>y</sub> = Baseline Emissions in year y (t CO<sub>2</sub>)
- EG<sub>BL,y</sub> = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
- EF<sub>CO<sub>2</sub> grid,y</sub> = CO<sub>2</sub> emission factor of the grid in year y (t CO<sub>2</sub>/MWh)

The emission factor has been calculated as per paragraph 12 (a) of AMS I.D/53/, version 17 as:

“The Emission Factor can be calculated in a transparent and conservative manner as follows:

(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the Tool to calculate the Emission Factor for an electricity system/62/;

OR

(b) The weighted average emissions (in t CO<sub>2</sub>/MWh) of the current generation mix. The data of the year in which project generation occurs must be used

The proposed CDM project activity will generate and wheel the generated electricity to the industrial unit of PP located in Ahmadabad, Gujarat through the NEWNE regional grid of India and the emission reductions achieved because of the project activity will be direct function of the net electricity fed to the grid and grid emission factor for the NEWNE regional grid as a combined margin, consisting of the combination of the operating margin and build margin according to the procedures prescribed in the methodological tool “Tool to calculate the emission factor for an electricity system”/62/ version 4. This is confirmed by interaction with the PP and as seen during the site visit, which is also in line with methodology applied to the project activity.

According to Para.99 of VVS/50/ ver.05.0, URS hereby confirms that:





- (a) All assumptions and data used by the project participant is listed in the PDD, including their references and sources.
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD.
- (c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity.
- (d) The baseline methodology has been applied correctly to calculate baseline emissions and emission reductions
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

### 3.6 Additionality of Project Activity

The additionality of the proposed CDM project activity has been demonstrated by applying the “Guidelines on the demonstration of additionality of small-scale project activities, EB 68, Annex 27”. In line with Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35, Annex 34) benchmark analysis is used under investment barrier. Thus, the selected benchmark analysis approach is appropriate, since the alternative to the project activity is the supply of electricity from the grid. This is inline with the requirement of paragraph 19 of EB 62 Annex 5 and thus acceptable to the assessment team.

The above opinion of validation team to the additionality of the proposed project is further explicitly explained in the following sections.

#### 3.6.1 Prior Consideration of the Clean Development Mechanism

The start date of the proposed CDM project activity has been mentioned in section C.1.1 of the PDD as 16/07/2009. The evidence for the same submitted by the PP is the purchase order/15/ issued to Suzlon Energy Limited by Bhagwati Spherocast Pvt. Ltd dated 16/07/2009 for WTG 1. Subsequently, the purchase order/15/ for the 2<sup>nd</sup> WTG of 1.5 MW was issued on 12/08/2010. Validation team has accepted the start date as 16/07/2009 since this is the earliest date at which PP has taken real action towards implementation of the project activity as per Glossary of CDM terms. The validation team has verified the same by checking with purchase order/15/ and found to be correct. Validation team thus confirms that start date selected is appropriate.

The start date of the project activity (16/07/2009) is prior to 03/01/2013 when the PDD was published for the Global stakeholder consultation. PDD was webhosted for Global stake holder comments from 03/01/2013 to 01/02/2013. Hence as per the para 107 of VVS/50/ version 5.0 for project activity with a start date 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 within 180 days of project start date.

The project was implemented in two phases. In the first phase, WTG 1 of capacity 1.5 MW was installed in Vershamedi village, Taluka: Maliya Miyana in Rajkot district and in second phase WTG 2 of capacity 1.5 MW was installed in Adodar village in Porbandar district, Gujarat. The decision date for Phase I was 28/4/2009 and purchase order was placed on 16/07/2009. Thus start date for phase I was 16/07/2009. The email notification was sent to UNFCCC for prior consideration on 29/09/2009 and reply was received from UNFCCC on 29/10/2009 stating that prior consideration form must be completed with exact precise details of the project in section 1 to 4. Subsequently PP submitted completed prior consideration form on 06/02/2010 and the project was displayed in prior consideration section on UNFCCC website on 06/02/2010. This date was more than 180 days from start date of phase I. Subsequently PP wrote a mail to UNFCCC on 03/12/2013 /49/ seeking clarification that first intimation was made on 29/09/2009 and second intimation was made on 06/02/2010 so whether the project is complying to prior consideration



requirements. UNFCCC secretariat replied on 16/01/2014 through email /64/ stating that they have allowed for the prior consideration without geo coordinates and title has been published in prior consideration view page mentioning date as 29/09/2009. The validation team checked the prior consideration section on UNFCCC website and found that project is listed and date received is shown as 29/09/2009. Thus this intimation was made within 180 days of project start date. The validation team has checked F-CDM-Prior consideration form submitted on 29/09/2009 and on 06/02/2010 and observed that both the prior consideration form are for same project.

The decision date for WTG 2 was 29/07/2010 and purchase order for WTG 2 was placed on 12/08/2010. Thus start date for Phase 2 was 12/08/2010. The intimation for prior consideration was sent on 02/11/2010. The validation team checked the prior consideration section on UNFCCC website and observed that date received is shown as 02/11/2010 on UNFCCC website. Thus prior consideration was sent to UNFCCC website on 02/11/2010 which is within 180 days from start date of Phase 2.

PP also submitted the prior consideration intimation to NCDMA on 29/09/2009 (for WTG 1) and on 02/11/2010 (for WTG 2) to convey the commencement of the project activity and their intention to seek CDM status, using the standardized form F-CDM-Prior Consideration. The project participant provided copy of the e-mail communication dated 29/09/2009, 06/02/2010 sent to UNFCCC and mail seeking clarification from UNFCCC on 03/12/2013 and reply received from UNFCCC on 16/01/2014 to the validation team. PP has also provided mail sent to DNA of India on 29/09/2009 and 02/11/2010 for WTG 1 and WTG 2 respectively.

Thus the project participant had informed UNFCCC and DNA of India on 29/09/2009 for WTG 1 which is within 180 days of project start date of Phase 1 and also informed UNFCCC and DNA of India on 02/11/2010 for WTG 2 which is within 180 days of project start date of Phase 2. The validation team has also cross-checked prior consideration section on UNFCCC website and observed that the project is listed on UNFCCC website under prior CDM consideration and date received is shown as 29/09/2009 and 02/11/2010.

The project title mentioned in the first intimation for WTG 1 made to UNFCCC and DNA of India was '1.5 MW Wind Power CDM Project by Bhagwati Spherocast Pvt Ltd. Odhav, Ahmedabad-Gujarat, India' and project title mentioned in second intimation made to UNFCCC and DNA of India for WTG 2 was '1.5 MW Bundled Wind Power CDM Project by Bhagwati Spherocast Pvt Ltd 2' whereas the project title mentioned in proposed CDM project activity is '3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat' and this was raised in CL 1. PP has clarified that separate intimations were made for both Phases as a result of which title was different. However both the WTGs are combined into a single project and title also is revised accordingly. Validation team checked the capacity, location and latitude and longitude of WTGs mentioned in two intimations made to UNFCCC and DNA of India for WTG1 and WTG 2 with capacity, location and latitude and longitude mentioned in this project and observed that they are same. Hence, validation team confirms that the WTGs mentioned in the F-CDM-Prior Consideration forms submitted for WTG1 and WTG 2 and in the proposed CDM project activity are same. Thus, the response provided by the PP was accepted.

The assessment of the Prior CDM Consideration of the project activity is conducted by reviewing documents submitted by project participant to UNFCCC and DNA of India and consulting the UNFCCC website, whereby the validation team confirms that the UNFCCC secretariat received the intimation sent by PP on 29/09/2009 and 02/11/2010 for phase 1 and phase 2 respectively.

Based on the above assessment, the URS hereby confirms in line with the requirement of para 112 of VVS/50/ ver.05.0 that project activity complies with the applicable requirements related to prior consideration of CDM. In conclusion, in accordance with the requirements of the section 7.12.9 of VVS/50/ version 5.0 URS can confirm that the CDM was considered necessary in the decision to implement the project activity and verified the start date of the project activity identified in the PDD/01/ is appropriate.





### 3.6.2 Identification of Alternatives

The proposed CDM project activity has demonstrated additionality by applying the “Guidelines on the demonstration of additionality of small-scale project activities, EB 68, Annex 27”. Additionality is demonstrated using investment barrier. In line with Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35, Annex 34) benchmark analysis is used under investment barrier.

As per para 11 of the approved baseline and monitoring methodology “AMS I.D/53/”, “Grid connected renewable electricity generation”, version 17 of 03/06/2011, the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would be generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. The baseline emissions are the product of electrical energy baseline  $EG_{BL,y}$  in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor of the NEWNE grid (tCO<sub>2</sub>/ MWh). The Project participant considered the project’s baseline scenario in line with what is prescribed by the applied methodology AMS I.D/53/ version 17. Since the approved methodology, that is applied, prescribes the baseline scenario, no further analysis on alternative identification is required, according to paragraph 115 of the VVS/50/ version 5.0.

### 3.6.3 Investment Analysis

#### (a) Choice of approach

The proposed CDM project activity has demonstrated additionality by applying the “Guidelines on the demonstration of additionality of small-scale project activities, EB 68, Annex 27”. Additionality is demonstrated using investment barrier. In line with Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35, Annex 34) and benchmark analysis has been applied to conduct the investment analysis. The benchmark analysis approach is appropriate, since the alternative to the project activity is the supply of electricity from the grid. This is in line with paragraph 19 of Guidelines on the Assessment of Investment Analysis (EB 62 Annex 5).

The PDD demonstrates that the project activity is not economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs) and thus the financial returns of the proposed CDM project activity would be insufficient to justify the required investment. The financial analysis was assessed by the validation team, including assessment of the spreadsheet and evidences relating to the input values to the financial analysis.

Project participant has selected benchmark analysis to demonstrate the additionality of the proposed CDM project activity and project participant has demonstrated that the project without CDM revenues is financially not viable. The project generates financial benefits other than CDM revenue in the form of sale of electricity; thus project participant cannot apply simple cost analysis. The alternative to the project activity is supply of electricity from the 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, EB 62, Annexure 5. Hence the project developer has chosen to apply the benchmark analysis method. Equity IRR has been chosen as financial indicator for demonstrating the additionality using benchmark analysis.

The PP has chosen to apply the expected Returns on the Equity as the benchmark which is appropriate benchmark for equity IRR as per para 12 of Guidelines on the assessment of investment analysis’ version 05, EB 62, Annex 5.

**(b) Suitability of Benchmark:**

Para 121 (a) of VVS/50/ ver. 5.0 states that benchmark should be suitable to the type of financial indicator selected. In line with above, PP has chosen the cost of equity as the benchmark. PP has chosen the Return on equity as the benchmark. As per EB 62 Annex 5, paragraph 12, in cases where a benchmark approach is used for financial evaluation of the project, the applied benchmark shall be appropriate to the type of IRR calculated. Local commercial lending rates or Weighted Average Costs of Capital (WACC) are appropriate benchmark for a project IRR. Required/expected returns on equity (Cost of Equity) are appropriate benchmarks for equity IRR. PP has considered Cost of equity as the benchmark as equity IRR has been chosen as the financial indicator for the project.

As per EB 62, Annex 5, paragraph 15, if the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by: (a) selecting the values provided in Appendix A; or by (b) calculating the cost of equity using best financial practices, based on data sources which can be clearly validated by the DOE, while properly justifying all underlying factors. Thus in line with para 15 of EB 62 annex 5, PP has selected default return on equity as per Appendix A of EB 62 annex 5.

As per the para 7 of Appendix, of EB 62 Annex 5, in situations where an investment analysis is carried out in nominal terms, project participant can convert the real term values provided in the table below to nominal values by adding the inflation rate. The inflation rate shall be obtained from the inflation forecast of the central bank of the host country for the duration of the crediting period.

The PP has selected the expected return on equity from the Appendix 'Default values for the expected return on equity' of the "Guidance on assessment of Investment Analysis" (EB 62 Annex 5). The "Guidance on assessment of Investment Analysis" provides expected return on equity for various project types and countries. The project activity falls under Host Country India, Group 1 (Sectoral Scope 1. Energy Industries) hence the real term value for expected return on equity is 11.75%.

PP has calculated the equity IRR in nominal term as escalation is considered in O&M cost. PP has converted the default real term value of expected return on equity to nominal value by adding the inflation rate. Accordingly PP converted the default benchmark which is in real terms into nominal terms by using the following equation:

$$\text{Nominal Benchmark} = \{(1 + \text{Real Benchmark}) * (1 + \text{Expected Inflation Rate}) - 1\}$$

The validation team referred the book 'Corporate Finance, Theory and Practice (2nd Edition, 2009) by Aswath Damodaran /44/. In Chapter 11 of the book titled 'Investment Analysis with Inflation and Exchange Rate Risk on page 320, the same equation is mentioned for converting real into nominal values. Hence the validation team considers the above equation as appropriate for converting real benchmark into nominal benchmark.

For both the WTGs, PP has considered inflation rate from Reserve Bank of India which is the central bank of India available during decision making. The RBI is supervisor of financial system, issuer of currency and manages foreign exchange reserves of the country. Thus the inflation forecast by RBI can be considered as reliable and authentic. WPI inflation forecast is Wholesale Price Index inflation forecast. The Indian government has taken WPI as an indicator of the rate of inflation in the economy. Presently price levels for 435 commodities are being tracked through Wholesale Price Index in India. The commodities are grouped under Primary Articles; Fuel and Power and Manufactured Products. Since WPI inflation considers the wholesale price for power which would include power generated from all sources, this inflation forecast rate is most appropriate for the project activity. Thus the validation team considers that WPI inflation forecast as appropriate for the project activity.

**Benchmark calculation for WTG-1 (VM-02):**

The inflation rate for the first WTG (whose investment decision has been taken on 28/04/2009) has been taken from Reserve Bank of India. The inflation rate considered by PP for 1.5 MW WTG is the median of Wholesale Price Index (WPI) Inflation forecast of 4.5% for ten years as given in 'Survey of Professional Forecasters: Results of the Sixth Round (Q3:2008-09) (<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=11306>) dated 03/02/2009. Inflation forecast for 5 years is given as 5% and inflation forecast for 10 years is given as 4.5%. Thus PP has considered inflation forecast of 4.5% which is conservative. The inflation forecast is applicable at the time of decision making of the 1.5 MW WTG. Thus, validation team concludes that PP has appropriately considered the inflation rate in the benchmark estimation for 1.5 MW WTG.

$$\begin{aligned}\text{Thus, Nominal Benchmark} &= \{(1 + \text{Real Benchmark}) * (1 + \text{Expected Inflation Rate}) - 1\} \\ &= \{(1 + 11.75\%) * (1 + 4.50\%) - 1\} \\ &= 16.78\%\end{aligned}$$

**Benchmark for WTG-2 (ADO-30):**

The inflation rate for the second WTG (whose investment decision has been taken on 29/07/2010) has been taken from Reserve Bank of India. The inflation rate considered by PP for 1.5 MW WTG is the median of Wholesale Price Index (WPI) Inflation forecast of 5.0% for next ten years as given in 'Survey of Professional Forecasters: Results of the Eleventh Round (Q3:2009-10) (<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=12291>) dated 03/05/2010. Inflation forecast for 5 years is given as 5.5% and inflation forecast for 10 years is given as 5.0%. Thus PP has considered inflation forecast of 5.0% which is conservative. The inflation forecast is applicable at the time of decision making of the 1.5 MW WTG. Thus, validation team concludes that PP has appropriately considered the inflation rate in the benchmark estimation for 1.5 MW WTG.

$$\begin{aligned}\text{Thus, Nominal Benchmark} &= \{(1 + \text{Real Benchmark}) * (1 + \text{Expected Inflation Rate}) - 1\} \\ &= \{(1 + 11.75\%) * (1 + 5.00\%) - 1\} \\ &= 17.34\%\end{aligned}$$

Thus, the benchmarks works out for both the WTGs using Fisher's equation are summarized below:

WTG No	Default Return on Equity in real terms	Inflation	Benchmark (Return on Equity in nominal term)
WTG-1 (VM-02)	11.75%	4.5%	16.78%
WTG-2 (ADO-30)	11.75%	5.0%	17.34%

The validation team has confirmed that all data used to arrive at the benchmark were derived from the sources available to the project participant at the time of the investment decision and hence the validation team accepted the same. Thus, in line with the requirement of para 123 of VVS/50/ ver 05.0, the applied benchmark has been found to be suitable for the project activity. Thus, the benchmark of the project activity is found to be inline with the requirement of EB 62, Annex 5. Furthermore, the investment decision date of both WTGs is earlier than the release date of EB 62, Annex 5 and the application of the default benchmark to the project activity was found to be accepted as per the para 4 of the clarification on applicability of the "Guidelines on the assessment of investment analysis" Annex 08 of EB73.

**c) Validity and Applicability of the Input Parameters:**

The validation team of URS validated the input values and assumptions used in the investment analysis by checking the source documents as detailed in table below. It is noted that the values of the input parameters stated in the PDD/01/ ver 4 are consistent with that of the financial calculation sheet. PP has considered the lifetime of the WTGs is 25 years and IRR calculations have been carried out for 20 years. According to Para 3 of EB 62 Annex 5, minimum period of 10 years and maximum period of 20 years is appropriate and in cases where assessment period is less than the technical lifetime, a fair value (i.e. salvage value) at the end of assessment period is to be considered. Accordingly the project participant has considered a 10% salvage value at the end of 20 years in line with the prevailing CERC order dated 26/04/2010 in IRRs of WTG 1 and WTG 2 /48/. Hence, same is justified as per the guidelines on assessment of investment analysis and validation team accepted the calculations. .

The investment decision date of the WTG-1 and WTG-2 were on 28/04/2009 and 29/07/2010 respectively as per the 'Extracts from the Minutes of Meeting on Board Resolution'. The input values are applicable at the time of investment decision as detailed in table below.

Also to determine the likelihood of the occurrence of a scenario other than the scenario presented for proposed project activity, a cross-check on the suitability of the assumptions used in the development of the investment analysis has been done. The detailed analysis on the assessment of the input parameters used in the investment analysis has been provided in the following table:

**Assessment of input parameters for WTG-1 (VM-02):**

Parameter	Unit	Value	Source	Validation Assessment
Capacity of WTG	MW	1.5	Extract of Board Meeting/7/	The individual capacity of WTG was verified from the extract of Board Meeting cross verified with the actual Purchase Order/15/. Further it was also confirmed from the commissioning certificates/16/ and the inspection of WTGs during the site visit.
No. of WTG		01	Extract from Minutes of Board Meeting/7/	The number of WTG was verified from the Extract from Minutes of Board Meeting and offer letter and cross verified with the actual Purchase Order/15/. Further it was also confirmed from commissioning certificate/16/ and the inspection of the WTG during the site visit.
Plant Load Factor	%	23.85	Letter from loan issuing bank/14/	PLF considered in IRR calculation is 23.85% which is taken from the letter issued by Bank of Baroda which states that PLF of 23.85% was considered by the bank. The same PLF has been considered for financial assessment and ER calculation. Thus, it is in line with the requirements of Annex 11, EB 48. Thus, assessment team conclude that PLF consideration by the PP is in line with Annex-11 of EB 48 and para 95 and 123 (c) of VVS/50/ ver. 5.0.



Parameter	Unit	Value	Source	Validation Assessment
				<p>Further, assessment team considered GERC tariff/26/ order dated 11/08/2006 to check the appropriateness of the PLF value considered in this project activity In line with para 120 (b) of VVS/50/ ver 5.0. According to the tariff order, GERC has recommended 23% which is less than the PLF considered at the time of decision making.</p> <p>Further, validation team checked “India Wind Energy Outlook, 2012” published by Global Wind Energy Council, World Institute of Sustainable energy and Indian Wind Turbine Manufacturing Association to cross check the appropriateness of the PLF value. In this regard, validation team found that PLF achieved for Gujarat for the year 2009, 2010 and 2011 were 18.02%, 20.78% and 15.63% respectively which are lower than the PLF considered in the investment analysis.</p> <p>The project participant has carried out sensitivity at +10% of the PLF. The IRR at +10% of PLF was 11.67% which is less than the benchmark. Thus, the PLF value of 23.85% is found to be appropriate and hence accepted.</p>
Project Cost (including service tax)	Million INR	99.18	Offer letter from WTG supplier /13/	<p>The project cost, has been taken from the offer letters/13/ dated 15/04/2009 of the project activity issued by the technology supplier Suzlon Energy Limited to the PP. The offer letter/13/ from the WTG supplier were the source of information available to the PP at the time of investment decision and hence in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ version 05.0, validation team cross checked the project cost considered in IRR calculations with actual project cost. The actual project cost as per the purchase orders/15/ is INR 84.21 million, which is 15.09 % lower than the cost considered at the time of decision making. Further, considering the actual project, equity IRR is worked out to be 13.55% which is also less than the benchmark. PP has calculated equity IRR at -10% of the project cost and equity IRR at -10% of project cost is 11.36% which is less than the benchmark.</p>



Parameter	Unit	Value	Source	Validation Assessment
Debt Equity ratio	-	70:30	GERC order No.2 of 2006 Dated. 11-8-2006 /26/	<p>PP has considered the debt equity ratio in the IRR calculations as 70:30, which is widely used for the wind power projects in India. The same has been taken from GERC Tariff Order/26/ dated 11/08/2006 which was applicable at the time of decision making and hence it is in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual debt equity ratio. The validation team checked the loan sanction/19/ letter dated 07/09/2009 issued by The Bank of Baroda, which provided the loan for the WTG-1 of this project activity. The, actual debt equity ratio of this project activity as per loan sanction letter is 59:41. The equity IRR of the project activity at the actual debt-equity ratio comes out to be 7.49%, which is less than the benchmark of the project activity. Thus, the debt-equity ratio considered in the investment analysis of the project activity is found to be appropriate.</p>
Rate of Electricity Tariff	INR/ kWh	4.07	Electricity bill dated March 2009 /67/	<p>The tariff in the IRR calculations is taken as INR 4.07 per kWh which was the electricity unit rate of the Ahmadabad unit where power is wheeled which is applicable at the time of decision making hence it is in line with para 6 of EB 62 Annex 5, which is accepted by the validation team.</p> <p>The project activity is wheeling the generated electricity to the industrial unit of BSPL at Ahmadabad, Gujarat. So, the equivalent amount of the grid electricity displaced is being displaced by the electricity wheeled by the project activity to the industrial unit. Thus, the avoided cost of the displaced grid electricity has been considered as revenue generated by the project activity. Therefore the validation team analyzed the electricity bills for the month of March 2009 of the industrial unit of BSPL prior to the investment decision date of the project activity. The energy charge of the electricity supplied by the grid was INR 3.25/ kWh in March 2009. The electricity bill of 3 years period prior to decision making were reviewed. Torrent Power is also charging fuel adjustment cost to the PP at a rate of INR 0.82/ kWh. Thus, the total tariff of the electricity turns out be INR 4.07/ kWh (INR 3.25/</p>





Parameter	Unit	Value	Source	Validation Assessment
				<p>kWh + INR 0.82/ kWh), which is based on the latest electricity bill of March 2009, which was available at the time of investment decision making of the project activity.</p> <p>Furthermore, the demand charges are continued to be paid by the PP to the grid company supplying electricity to its industrial unit even after the wheeling of the electricity from the WTG and thus there is no change on the applicability of demand charges during the wheeling of the electricity. So, the demand charges have not been included in the investment analysis of the project activity.</p> <p>The considered electricity tariff is INR 4.07 per kWh which is sourced from electricity bill for the month of March 2009. The same bill was applicable at the time of decision making, hence it is in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS, the validation team cross-checked the tariff as per GERC tariff order for Torrent Power Limited dated 31/07/2007 which also mentions energy charges for HT customer as INR 3.25/KWh which is same as mentioned in the electricity bill and hence accepted. Further, the sensitivity analysis at <math>\pm 10\%</math> variation of the tariff has been conducted in the investment analysis. The equity IRR of the project activity at +10% of the tariff rate comes out to be 11.67% which is lower than the benchmark of the project activity. Thus, the tariff rate of INR 4.07/ kWh considered in the investment analysis of the project activity is found to be appropriate.</p>
Escalation on tariff	%	0.60	Electricity bill from April 2004 to March 2009 /67/	<p>The escalation on tariff has been calculated by considering the historical electricity bills of the industrial unit of BSPL in the last five years from i.e. from April 2004 to March 2009. Thus, the electricity charges have increased by 0.60% per annum (Compounded Annual Growth Rate (CAGR). The same has been used in the investment analysis of the project activity.</p> <p>The validation team also reviewed electricity bill for the March 2009 and observed that energy charges as per the bill are INR 3.25/KWh which is same as mentioned in the GERC tariff order for Torrent power Limited dated 31/07/2007. As the escalation is considered using electricity bills and energy charges mentioned in electricity bill</p>





Parameter	Unit	Value	Source	Validation Assessment
				for March 2009 is same as mentioned GERC tariff order for Torrent power Limited dated 31/07/2007 thus, the escalation of 0.60% taken in the investment analysis is appropriate. Furthermore, a sensitivity analysis upto +10% of the tariff has been conducted in the investment analysis and it is found that the equity IRR is less than the benchmark even at 10% increase in the tariff.
Wheeling Charge	%	10	Govt. of Gujarat, Amendment to Wind Power Policy dated 13/06/2007 /32/	<p>PP has considered the wheeling charge of 10% in the IRR calculations from the Govt. of Gujarat Amendment to Wind Power Policy/32/, dated 13/06/2007. According to the policy, the wheeling of electricity generated from the WTGs, to the desired location(s) within the State, PP having more than one WTG shall be charged at the rate of 10% of the energy fed to the grid for transmission and wheeling losses. The same policy was available at the time of decision making. Hence it is in line with para 6 of EB 62 Annex 5.</p> <p>Furthermore, validation team made an independent assessment with the registered project to cross check the wheeling charges loss. Thus, validation team has considered a registered project activity in Gujarat (UN ref no 9750) and found that PP has considered 10% wheeling loss for the project activity.</p> <p>Thus, validation team concluded that PP has appropriately considered the wheeling loss for this project.</p>
O & M cost (including service tax)	INR million	1.76	Offer letters of WTG supplier/13/	<p>The O&amp;M cost has been taken from offer letters from the Suzlon Energy Limited which was available at the time of decision making. As per the offer letters the O &amp; M cost of the WTG is INR 1.60 Million per WTG and after including service tax of 10.3%, the O&amp;M cost works out to be 1.76 Million per WTG with an annual escalation rate of 5%. The offer letter was made available to validation team and the same has been verified and found to be correct hence the O&amp;M cost value is correct and acceptable and in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual O&amp;M agreement of this WTG (O&amp;M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and total O&amp;M cost is</p>



Parameter	Unit	Value	Source	Validation Assessment
				<p>INR 1.50 Million which is 14.7% less than the O&amp;M considered during decision making. Considering this value, equity IRR of the project is 8.14% which is less than the benchmark.</p> <p>Further, Project participant has carried out sensitivity on <math>\pm 10\%</math> of O&amp;M cost. Furthermore validation team has cross-checked that equity IRR crosses the benchmark at -142.4% reduction in O&amp;M cost which is not possible.</p>
Escalation in O & M Charges	% / Annum	5	Offer letters from WTG supplier/13/	<p>The escalation in O&amp;M cost is considered as 5% for financial assessment from offer letters from the Suzlon Energy Limited which were available at the time of decision making and hence it is in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/51/ ver.05.0, the validation team has cross-checked the escalation of O&amp;M cost with escalation mentioned in actual O&amp;M agreement (O&amp;M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and observed that escalation mentioned in actual O&amp;M agreements is also 5%, thus escalation considered at the time of decision making is acceptable.</p>
Interest Rate on term loan	%	11.5	BPLR of 5 Indian nationalized Banks available at the time of decision making /69/	<p>PP had considered minimum BPLR of five nationalized banks available at the time of decision making as the interest rate on term loan. In this regard, PP has considered the prevailing Benchmark Prime Lending Rate (BPLR) of State Bank of India, Punjab National Bank, Bank of Baroda, Union Bank of India and Allahabad Bank as detailed in IRR excel spreadsheet. By conservative approach, the minimum prevailing benchmark prime lending rates of these 5 banks were 11.50%. As the data is publically available, it is considered as reliable and authentic and it is available at the time of decision making and hence it is in line with para 6 of EB 62 annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual interest rate. The validation team checked the loan sanction letter/19/ dated 07/09/2009 issued by Bank of Baroda, which provided the loan for the project activity. As per loan sanction letter the actual interest rate is also 10.5% and equity IRR at</p>



Parameter	Unit	Value	Source	Validation Assessment
				interest rate of 10.5% is 7.93% which is less than the benchmark.
Service Tax	%	10.3	Directorate of service tax /40/	<p>The validation team has verified the service tax with the Directorate of Service Tax, Department of Revenue, Ministry of Finance and found that project participant has computed service tax of 10.3% correctly and the same is acceptable to the validation team.</p> <p>As the rate of service tax is considered from the Directorate of service tax for the FY 2009-10, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Income Tax Depreciation Rate	%	80	As per Indian Income Tax Rules /38/	<p>The project participant has considered the tax depreciation as per the rates prescribed in New Appendix I of Income Tax Rules, 1962. The same has been checked by the validation team and found to be correct, hence accepted.</p> <p>As the rate of income tax depreciation is considered from the Indian Income Tax Rules, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Book depreciation rate (SLM) on all assets	%	4.75	The Company Act 1956 /37/	<p>The project participant has calculated the depreciation as per straight line method as per the Companies Act, 1956. Validation team has cross checked the same and found to be correct and hence accepted.</p> <p>As the rate of book depreciation is considered from the Company Act, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Income Tax Rate	%	33.99	Income tax Act, FY 2009-2010 /38/	<p>The tax rates have been considered as per Income Tax Act for FY 2009- 10 As the tax rates are as per Income Tax Act for FY 2009-10, the same is accepted by the validation team.</p> <p>As the rate of income tax is considered from the Indian Income Tax Act. FY 2009-10, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Minimum Alternative Tax (MAT)	%	17	Income tax Act, FY 2009-10 /39/	<p>The MAT tax rates have been considered as per Income Tax Act for FY 2009- 10 As the MAT tax rates are as per Income Tax Act for F Y 2009-10, the same is accepted by the validation team.</p> <p>As the rate of rate of MAT is considered from the Indian Income Tax Act. FY 2009-10, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Salvage	%	10	GERC order	The salvage value is calculated as per the



Parameter	Unit	Value	Source	Validation Assessment
Value			No.2 of 2006 Dated. 11-8-2006	GERC order No.2 of 2006 Dated. 11-8-2006 which mentions that the salvage value as 10% of initial cost and it is applicable at the time of decision making. Hence the same is accepted by the validation team.

**Assessment of input parameters for WTG-2 (ADO-30):**

Parameter	Unit	Value	Source	Validation Assessment
Capacity of WTG	MW	1.5	Extract of Board Meeting /7/	The individual capacity of WTG was verified from the extract of Board Meeting which was applicable at the time of decision making and cross verified with the actual purchase order/15/. Further it was also confirmed from the commissioning certificates/16/ and the inspection of WTGs during the site visit.
No. of WTG		1	Extract from Minutes of Board Meeting /7/	The number of WTG was verified from the Extract from Minutes of Board Meeting and offer letter and cross verified with the actual Purchase Order/15/. Further it was also confirmed commissioning certificate/16/ and the inspection of the WTG during the site visit.
Plant Load Factor	%	23.85	Letter from loan issuing bank /14/	<p>PLF considered in IRR calculation is 23.85% which is taken from the letter issued by Bank of Baroda dated 23/08/2013. The same PLF has been considered for financial assessment and ER calculation. Thus, it is in line with the requirements of Annex 11, EB 48. Thus, assessment team conclude that PLF consideration by the PP is in line with Annex-11 of EB 48 and para 95 and 123 (c) of VVS/50/ ver. 5.0.</p> <p>Further, assessment team considered GERC tariff/26/ order dated 30/01/2010 to check the appropriateness of the PLF value considered in this project activity In line with para 120 (b) of VVS/50/ ver 5.0. According to the tariff order, GERC/26/ has recommended 23% PLF for the wind project which is less than the PLF considered at the time of decision making.</p> <p>Further, validation team checked "India Wind Energy Outlook, 2012" published by Global Wind Energy Council, World Institute of Sustainable energy and Indian Wind Turbine Manufacturing Association to cross check the appropriateness of the PLF value. In this regard, validation team found that PLF achieved for Gujarat for the year 2009, 2010 and 2011 were 18.02%, 20.78% and</p>



Parameter	Unit	Value	Source	Validation Assessment
				<p>15.63% respectively which are lower than the PLF considered in the investment analysis.</p> <p>The project participant has carried out sensitivity at +10% of the PLF. The IRR at +10% of PLF was 14.42% which is less than the benchmark. Thus, the PLF value of 23.85% is found to be appropriate and hence accepted.</p>
Project Cost (including service tax)	Million INR	98.42	Offer letter from WTG supplier /13/	<p>The project cost, has been taken from the offer letters dated 26/07/2010 of the project activity issued by the technology supplier Suzlon Energy Limited to the PP. The offer letter from the WTG supplier were the source of information available to the PP at the time of investment decision and hence in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ version 5.0, validation team cross checked the project cost considered in IRR calculations with actual project cost. The actual project cost as per the purchase orders/15/ is INR 83.70 million, which is 14.96% lower than the cost considered at the time of decision making. Further, considering the actual project, equity IRR is worked out 16.59% which is also less than the benchmark. PP has calculated equity IRR at -10% of the project cost which covers the actual cost also and equity IRR at -10% of project cost is 14.12% which is less than the benchmark.</p>
Debt Equity ratio	%	70:30	GERC order No.2 of 2010 Dated 30/01/2010. /26/	<p>PP has considered the debt equity ratio in the IRR calculations as 70:30, which is widely used for the wind power projects in India. The same has been taken from GERC Tariff Order/26/ dated 30/01/2010 which was applicable at the time of decision making and hence it is in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual debt equity ratio. The validation team checked the loan sanction letter/19/ dated 30/10/2010 issued by The Bank of Baroda, which provided the loan for the WTG-2 of this project activity. The, actual debt equity ratio of this project activity as per loan sanction letter/19/ is 77.7:22.3. The equity IRR of the project activity at the actual debt-equity ratio comes out to be 9.48%, which is less than the benchmark of the project activity. Thus, the debt-equity ratio considered in the investment analysis of the project activity is</p>





Parameter	Unit	Value	Source	Validation Assessment
				found to be appropriate.
Rate of Electricity Tariff	INR/ kWh	4.23	Electricity bill dated June 2010 /68/	<p>The tariff in the IRR calculations is taken as INR 4.23 per kWh which was the electricity unit rate of the Ahmadabad unit where power is wheeled (at the time of decision making) which is applicable at the time of decision making hence it is in line with para 6 of EB 62 Annex 5, which is accepted by the validation team.</p> <p>The project activity is wheeling the generated electricity to the industrial unit of BSPL at Ahmadabad, Gujarat. So, the equivalent amount of the grid electricity displaced is being displaced by the electricity wheeled by the project activity to the industrial unit. Thus, the avoided cost of the displaced grid electricity has been considered as revenue generated by the project activity. Therefore the validation team analyzed the electricity bills for the month of June 2010 of the industrial unit of BSPL prior to the investment decision date of the project activity. The energy charge of the electricity supplied by the grid was INR 3.45/ kWh in June 2010. The electricity bill of 3 years period prior to decision making were reviewed. Torrent Power is also charging fuel adjustment cost to the PP at a rate of INR 0.78/ kWh. Thus, the total tariff of the electricity turns out be INR 4.23/ kWh (INR 3.45/ kWh + INR 0.78/ kWh), which is based on the latest electricity bill of June 2010, which was available at the time of investment decision making of the project activity.</p> <p>Furthermore, the demand charges are continued to be paid by the PP to the grid company supplying electricity to its industrial unit even after the wheeling of the electricity from the WTG and thus there is no change on the applicability of demand charges during the wheeling of the electricity. So, the demand charges have not been included in the investment analysis of the project activity.</p> <p>The considered electricity tariff is INR 4.23 per kWh which is sourced from electricity bill for the month of June 2010. The same bill was applicable at the time of decision making, hence it is in line with para 6 of EB 62 Annex 5.</p>



Parameter	Unit	Value	Source	Validation Assessment
				In line with para 120 (b) of VVS, the validation team cross-checked the tariff as per GERC tariff order for Torrent Power Limited dated 31/03/2010 which also mentions energy charges for HT customer as INR 3.45/KWh which is same as mentioned in the electricity bill and hence accepted. Further, the sensitivity analysis at $\pm 10\%$ variation of the tariff has been conducted in the investment analysis. The equity IRR of the project activity at +10% of the tariff rate comes out to be 14.42% which is lower than the benchmark of the project activity. Thus, the tariff rate of INR 4.23/ kWh considered in the investment analysis of the project activity is found to be appropriate.
Escalation on tariff	%	0.71	Electricity bill from July 2005 to June 2010 /68/	<p>The escalation on tariff has been calculated by considering the historical electricity bills of the industrial unit of BSPL in the last five years from i.e. from July 2005 to June 2010. Thus, the electricity charges have increased by 0.71% per annum (Compounded Annual Growth Rate (CAGR). The same has been used in the investment analysis of the project activity.</p> <p>The validation team also reviewed electricity bill for the June 2010 and observed that energy charges as per the bill are INR 3.45/KWh which is same as mentioned in the GERC tariff order for Torrent power Limited dated 31/03/2010. As the escalation is considered using electricity bills and energy charges mentioned in electricity bill for June 2010 is same as mentioned GERC tariff order for Torrent power Limited dated 31/03/2010, thus, the escalation of 0.71% taken in the investment analysis is appropriate. Furthermore, a sensitivity analysis upto +10% of the tariff has been conducted in the investment analysis and it is found that the equity IRR is less than the benchmark even at 10% increase in the tariff.</p>
Wheeling Charge	%	10	GERC order No.1 of 2010 Dated 30/01/2010 /32/	PP has considered the wheeling charge of 10% in the IRR calculations from the GERC order/26/ No.1 of 2010 Dated 30/01/2010. According to the order, the wheeling of electricity generated from the WTGs, to the desired location(s) within the State, PP having more than one WTG shall be charged at the rate of 10% of the energy fed to the grid for transmission and wheeling losses. The same order was available at the time of decision making. Hence it is in line with para 6 of



Parameter	Unit	Value	Source	Validation Assessment
				<p>EB 62 Annex 5.</p> <p>Furthermore, assessment team made an independent assessment with the registered project to cross check the transmission loss. Thus, assessment team has considered a registered project activity in Gujarat (UN ref no 9750) and found that PP has considered 10% wheeling loss for the project activity.</p> <p>Thus, assessment team concluded that PP has appropriately considered the wheeling loss for this project.</p>
O & M cost (including service tax)	INR million	1.76	Offer letters of WTG supplier /13/	<p>The O&amp;M cost has been taken from offer letters from the Suzlon Energy Limited which were available at the time of decision making . As per the offer letters the O &amp; M cost of the WTG is INR 1.60 Million per WTG and after including service tax of 10.3%, the O&amp;M cost works out to be 1.76 Million per WTG with an annual escalation rate of 5%. The offer letter was made available to validation team and the same has been verified and found to be correct hence the O&amp;M cost value is correct and acceptable and in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual O&amp;M agreement of this WTG (O&amp;M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and total O&amp;M cost is INR 1.50 Million which is 14.7% less than the O&amp;M considered during decision making. Considering this value, equity IRR of the project is 11.18% which is less than the benchmark.</p> <p>Further, Project participant has carried out sensitivity on <math>\pm 10\%</math> of O&amp;M cost. Furthermore validation team has cross-checked that equity IRR crosses the benchmark at -115% reduction in O&amp;M cost which is not possible.</p>
Escalation in O & M Charges	% / Annum	5	Offer letters from WTG supplier /13/	<p>The escalation in O&amp;M cost is considered as 5% for financial assessment from offer letters from the Suzlon Energy Limited which were available at the time of decision making and hence it is in line with para 6 of EB 62 Annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver.05.0, the validation team has cross-checked the escalation of O&amp;M cost with escalation mentioned in actual O&amp;M agreement (O&amp;M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and</p>



Parameter	Unit	Value	Source	Validation Assessment
				observed that escalation mentioned in actual O&M agreements is also 5%, thus escalation considered at the time of decision making is acceptable.
Interest Rate on term loan	%	11.00	BPLR of 5 Indian nationalized Banks available at the time of decision making /70/	<p>PP had considered minimum BPLR of five nationalized banks available at the time of decision making as the interest rate on term loan. In this regard, PP has considered the prevailing Benchmark Prime Lending Rate (BPLR) of State Bank of India, Punjab National Bank, Bank of Baroda, Union Bank of India and Allahabad Bank as detailed in IRR excel spreadsheet. By conservative approach, the minimum prevailing benchmark prime lending rates of these 5 banks were 11.00%. As the data is publically available, it is considered as reliable and authentic and it is available at the time of decision making and hence it is in line with para 6 of EB 62 annex 5.</p> <p>In line with para 120 (b) of VVS/50/ ver 5.0, the validation team also checked actual interest rate. The validation team checked the loan sanction letter/19/ dated 30/10/2010 issued by Bank of Baroda, which provided the loan for the project activity. As per loan sanction letter/19/, the interest on term loan is 12.00%. Thus, interest rate considered at the time of decision making is conservative.</p>
Service Tax	%	10.3	Directorate of service tax /40/	<p>The validation team has verified the service tax with the Directorate of Service Tax, Department of Revenue, and Ministry of Finance and found that project participant has computed service tax of 10.3% correctly and the same is acceptable to the validation team.</p> <p>As the rate of service tax is considered from the Directorate of service tax for the FY 2010-11, which official source of Govt. of India and it is authentic source and hence accepted.</p>
Income Tax Depreciation Rate	%	80	As per Indian Income Tax Rules /38/	<p>The project participant has considered the tax depreciation as per the rates prescribed in New Appendix I of Income Tax Rules, 1962. The same has been checked by the validation team and found to be correct, hence accepted.</p> <p>As the rate of income tax depreciation is considered from the Indian Income Tax Rules, which official source of Govt. of India and it is</p>



Parameter	Unit	Value	Source	Validation Assessment
				authentic source and hence accepted.
Book depreciation rate (SLM) on all assets	%	4.75	The Company Act 1956 /37/	The project participant has calculated the depreciation as per straight line method as per the Companies Act, 1956. Validation team has cross checked the same and found to be correct and hence accepted.  As the rate of book depreciation is considered from the Company Act, which official source of Govt. of India and it is authentic source and hence accepted.
Income Tax Rate	%	33.22	Income tax Act, FY 2010-11 /38/	The tax rates have been considered as per Income Tax Act for FY 2010- 11 As the tax rates are as per Income Tax Act for FY 2010-11, the same is accepted by the validation team.  As the rate of income tax is considered from the Indian Income Tax Act. FY 2010-11, which official source of Govt. of India and it is authentic source and hence accepted.
Minimum Alternative Tax (MAT)	%	19.93	Income tax Act, FY 2010-11 /39/	The MAT tax rates have been considered as per Income Tax Act for FY 2010- 11 As the MAT tax rates are as per Income Tax Act for FY 2010-11, the same is accepted by the validation team.  As the rate of rate of MAT is considered from the Indian Income Tax Act. FY 2010-11, which official source of Govt. of India and it is authentic source and hence accepted.
Salvage Value	%	10	CERC tariff order dated 26/04/2010 /48/	The salvage value is calculated as per CERC order dated 26/04/2010 which mentions that the salvage value of the asset shall be considered as 10% and also it is applicable at the time of decision making. Hence the same is accepted by the validation team.

PP has considered the loan tenure of 40 quarters for WTG 1 from the GERC tariff order/26/ dated 18/08/2006 and PP has considered loan tenure of 40 quarters for WTG 2 from GERC order dated 30/01/2010 which were available at the time of decision making and hence it is in line with para 6 of EB 62 Annex 5. The CER price was considered as 12.2 Euros and exchange rate was considered as 1 Euro = INR 65.86 as on 27/04/2009 for WTG-1. Further, CER price was considered as 11.40 Euros and exchange rate was considered as 1 Euro = INR 60.70 as on 28/07/2010 for WTG-2. The exchange rate and CER price were applicable at the time of decision making and hence accepted by the validation team.

The lifetime of the WTG is 25 years and IRR calculations have been carried out for 20 years. According to Para 3 of EB 62 Annex 5, minimum period of 10 years and maximum period of 20 years is appropriate and in cases where assessment period is less than the technical lifetime, a fair value (i.e. salvage value) at the end of assessment period is to be considered. Accordingly the project participant has considered a 10% salvage value at the end of 20 years for WTG 1 and WTG 2 as explained in tables above. Hence, same is justified as per the guidelines on assessment of investment analysis and validation team accepted the calculations. The assessment team confirms that all input values considered in the investment analysis are valid and were available at the time of investment decision making. The provided input values are found to be consistent in the IRR calculation sheet/03/ and the PDD/01/. Thus, the project activity conforms to the





requirement of para 6 of EB 62, Annex 5. The PP has submitted spreadsheets used for the investment analysis. The sheets have been checked by the financial expert. All the assumptions, links and formulae used in the sheet are readable and all cells are viewable and unprotected. The analysis has been presented in a transparent manner in the excel spreadsheet and is reproducible. Thus, it satisfies the requirements of paragraph 8 of EB 62 Annex 5.

The depreciation value has been deducted for calculating the gross profit and has been added back to the net profit for the purpose of calculating the Equity IRR. Thus, it satisfies the requirement of paragraph 5 of EB 62. Annex 5.

The validation team further assessed the correctness of computations and documentation carried out by the project participant. The assessment involves checking the data input taken from offer letter/publically available sources, adoption of correct accounting principle and arithmetical accuracy. The validation team has checked the documents and ensured that right input has been taken in the project cost and other parameters as described above and projections. The accounting principles adopted with respect to computation of depreciation and tax computation are found to be in order. The arithmetical accuracy is also found to be correct.

The post tax equity IRR calculations were provided in excel spreadsheet and verified. The assumptions used in the calculations were verified by URS. The calculated equity IRR of the project activity without CDM revenue is 7.07% and 10.25% for WTG-1 and WTG-2 respectively which are less than the benchmark of respective WTG. Thus project activity without CDM revenues is financially not viable.

WTG No	Equity IRR without CDM	Benchmark (Return on Equity)
WTG-1 (VM-02)	7.07%	16.78%
WTG-2 (ADO-30)	10.25%	17.34%

#### (a) Sensitivity analysis

The variables, that constitute more than 20% of either total project costs or total project revenues has been subjected to variation of  $\pm 10\%$  and the results of this variation is presented in the PDD and can be reproduced in the associated IRR spreadsheet. Validation team confirms that this variation  $\pm 10\%$  is reasonable and appropriate in the context of the proposed project activity circumstances.

The PP has appropriately selected the following variables to conduct the sensitivity analysis:

1. Electricity Generation
2. Project Cost
3. Electricity Tariff
4. O & M Cost

The results of the sensitivity analysis have been presented in the PDD. The results have also been presented in the excel spreadsheet/03/ in a reproducible manner. Thus, it satisfies the requirements of paragraph 20 of EB 62 Annex 5.

The outcome of the sensitivity analysis for each of the variable along with the selected benchmark is summarized below:

#### Sensitivity analysis for WTG-1 (VM-02):

Sensitivity Analysis – Post tax- Equity IRR without CDM		
Parameter	-10%	+10%
Project Cost	11.36%	4.82 %
Electricity Tariff	3.94%	11.36%
PLF	3.94%	11.67 %
O & M Cost	7.79%	6.41%

**Sensitivity analysis for WTG-2 (ADO-30):**

Sensitivity Analysis – Post tax- Equity IRR without CDM		
Parameter	-10%	+10%
PLF	5.73%	14.42%
O&M	10.91%	9.58%
Project Cost	14.12%	6.60%
Electricity Tariff	5.73%	14.42%

**a) Project Cost:**

(i) **WTG 1:** The actual project cost for WTG-1 as per the purchase orders/15/ is INR 84.21 million. The actual project cost is -15.09 % lower than the cost considered at the time of decision making. Considering the actual project cost, equity IRR of the project is worked out 13.55% which is less than the benchmark. Further, PP has carried out sensitivity at -10% of project cost and equity IRR at -10% of project cost is less than the benchmark. As the actual project cost has already been incurred, the cost cannot go any further down.

(ii) **WTG 2:** The actual project cost for WTG-2 as per the purchase orders is INR 83.7 million. The actual project cost is -14.96 % lower than the cost considered at the time of decision making. Considering the actual project cost, equity IRR of the project is worked out 16.59% which is less than the benchmark. Further, PP has carried out sensitivity at -10% of project cost and equity IRR at -10% of project cost is less than the benchmark. As the actual project cost has already been incurred, the cost cannot go any further down.

**b) O&M Cost:**

(i) **WTG 1:** The validation team has checked the actual O&M agreement of this WTG (O&M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and total O&M cost is INR 1.50 Million which is 14.7% less than the O&M considered during decision making. Considering this value, equity IRR of the project is 8.14% which is less than the benchmark. Furthermore validation team has cross-checked that equity IRR crosses the benchmark at -142.4% reduction in O&M cost which is not possible.

(ii) **WTG 2:** The validation team has checked the actual O&M agreement of this WTG (O&M agreement (Service only) and maintenance (with parts and/ consumables) agreement) and total O&M cost is INR 1.50 Million which is 14.7% less than the O&M considered during decision making. Considering this value, equity IRR of the project is 11.18% which is less than the benchmark. Furthermore validation team has cross-checked that equity IRR crosses the benchmark at -115% reduction in O&M cost which is not possible.

**c) PLF:**

(i) **WTG 1:** PLF as per GERC tariff/26/ order dated 11/08/2006 is 23% which is less than the PLF considered at the time of decision making. Further, validation team checked "India Wind Energy Outlook, 2012" published by Global Wind Energy Council, World Institute of Sustainable energy and Indian Wind Turbine Manufacturing Association to cross check the appropriateness of the PLF value. In this regard, validation team found that PLF achieved for Gujarat for the year 2009, 2010 and 2011 were 18.02%, 20.78% and 15.63% respectively which are lower than the PLF considered in the investment analysis. The project participant has carried out sensitivity at +10% of the PLF. The IRR at +10% of PLF was 11.67% which is less than the benchmark. Thus, the PLF value of 23.85% is found to be appropriate and hence accepted. Furthermore, the equity IRR will cross the benchmark if the PLF will increase by 22.28% which is not the trend observed in last 3 years and it is not realistic.



(ii) **WTG 2:** PLF as per GERC tariff/26/ order dated 30/01/2010 is 23% which is less than the PLF considered at the time of decision making. Further, validation team checked “India Wind Energy Outlook, 2012” published by Global Wind Energy Council, World Institute of Sustainable energy and Indian Wind Turbine Manufacturing Association to cross check the appropriateness of the PLF value. In this regard, validation team found that PLF achieved for Gujarat for the year 2009, 2010 and 2011 were 18.02%, 20.78% and 15.63% respectively which are lower than the PLF considered in the investment analysis. The project participant has carried out sensitivity at +10% of the PLF. The IRR at +10% of PLF was 14.42% which is less than the benchmark. Thus, the PLF value of 23.85% is found to be appropriate and hence accepted. Furthermore, the equity IRR will cross the benchmark if the PLF will increase by 16.55% which is not the trend observed in last 3 years and it is not realistic.

#### d) Electricity Tariff:

(i) **WTG 1:** The validation team has checked the tariff as per GERC order for Torrent Power Limited dated 31/07/2007 and energy charges for High tension are mentioned as INR 3.25/KWh which is same as energy charges considered at the time of decision making as per electricity bill. The sensitivity at  $\pm 10\%$  of the tariff has been conducted and the equity IRR of the project activity at +10% of the tariff is lower than the benchmark of the project activity. The tariff considered at the time of decision making is based on actual electricity bills and it is same as energy charges mentioned in GERC tariff order for Torrent Power Limited and escalation has also been considered based on electricity bills of last 5 years. Thus tariff is appropriate and equity IRR at +10% of tariff is also less than the benchmark. Since the tariff is based on actual electricity bills, it is considered appropriate and increase of 22.50% in tariff is not realistic.

(ii) **WTG 2:** The validation team has checked the tariff as per GERC order for Torrent Power Limited dated 31/03/2010 and energy charges for High tension are mentioned as INR 3.45/KWh which is same as energy charges considered at the time of decision making as per electricity bill. The sensitivity at  $\pm 10\%$  of the tariff has been conducted and the equity IRR of the project activity at +10% of the tariff is lower than the benchmark of the project activity. The tariff considered at the time of decision making is based on actual electricity bills and it is same as energy charges mentioned in GERC tariff order for Torrent Power Limited and escalation has also been considered based on electricity bills of last 5 years. Thus tariff is appropriate and equity IRR at +10% of tariff is also less than the benchmark. Since the tariff is based on actual electricity bills, it is considered appropriate and increase of 16.55% in tariff is not realistic.

As shown above, the PP has carried out a fairly exhaustive sensitivity analysis to prove that the IRR for WTG 1 and WTG 2 does not exceed the respective benchmarks under any circumstances. The project continues to remain additional even with reduced project costs and increased tariffs.

Considering the above assessment on additionality demonstration, benchmark selection, appropriateness of parameters used and correctness of financial calculations, Assessment team concludes that the project scenario is not economically feasible without benefits from CER sales. Hence, assessment team confirms that CER revenues alleviate the project feasibility.

### 3.6.4 Barrier Analysis

Barrier analysis has not been applied for the demonstration of the additionality of this project activity. Project participant has demonstrated additionality as per “Guidelines on the demonstration of additionality of small-scale project activities, EB 68, Annex 9” as described above

### 3.6.5 Common Practice Analysis

Common practice analysis has not been used to demonstrate additionality. This is small scale project activity, so the common practice analysis is not required to be conducted for this project activity. Project



participant has demonstrated additionality as per “Guidelines on the demonstration of additionality of small-scale project activities, EB 68, Annex 9” as described above.

### 3.6.6 Conclusion

URS is able to confirm that all data, rationales, assumptions, justifications and documentation provided by the project participant to support demonstration of additionality are credible and reliable.

By assessing the evidences presented and cross-checking the information contained in, URS 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. Thus URS confirms that the above discussion and analysis establishes that the project activity without CDM benefits is financially not viable.

## 3.7 Monitoring Plan

The project activity uses the simplified baseline and monitoring methodology AMS I.D version 17/53/. The applicability conditions of the methodology have been discussed above.

The monitoring plan is in accordance with the monitoring methodology. The monitoring plan will give opportunity for real measurement of achieved emission reductions. URS 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.

URS 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.

#### a) Parameters determined ex-ante:

The ex-ante parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology:

Baseline emission factor for regional grid is established *ex-ante* based on the approved methodology AMS-I.D, version 17, paragraph 12 applying combined approach consisting of 75% operating margin and 25% build margin.

	Data/parameter	Unit	Value applied	Assessment
1	EF <sub>grid, OM,y</sub>	tCO <sub>2</sub> /MWh	0.9842	Project participant has used the official published data on operating and build margin emission factors for NEWNE grid. The version of the data used is latest version as available on the date of webhosting of the PDD for Global stakeholder comments (viz. start of validation). This data is published by Central Electricity Authority, CEA (version 7.0) who is the sole authority for the publication of such data in India. CEA has published a database of carbon dioxide emission factors for the power sector in India based on
2	EF <sub>grid, BM,y</sub>	tCO <sub>2</sub> /MWh	0.8588	



3	$EF_{grid, CM, y}$	$tCO_2/MWh$	0.9528	<p>detailed authenticated information obtained from CEA on all operating power stations in the country. Project participant has applied weight factors for the OM and BM [75% &amp; 25% respectively] as specified in the tool to arrive at the emission factor for the combined margin.</p> <p>Validation team has checked the emission factor calculations from CEA database version 7.0 and the values of <math>EF_{grid, CM, y}</math>, <math>EF_{grid, OM, y}</math> and <math>EF_{grid, BM, y}</math> are found to be correct. The validation team agrees to this emission factor since it is based on the official background data published by CEA .</p>
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URS confirms that the database is an official publication of Ministry of Power, Government of India. The calculation and assumptions were verified by the validation team and found to be correct and appropriate.

#### b) Parameters monitored ex-post:

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

	Parameter	Description/Assessment
1	$EG_{BL, y}$	<p>This refers to the 'Net electricity supplied to the NEWNE grid by Project activity'. This value will be used for the emission reduction calculations. This parameter is calculated by subtracting electricity imported from electricity exported to grid. The electricity exported to grid and imported from grid is measured by energy meter located at each WTG. The state utility provides Monthly energy generated statement which mentions net electricity exported to grid. The net electricity supplied will be cross checked with the invoices raised by project participant.</p> <p><math>EG_{BL, y} = EG_{Export, y} - EG_{Import, y}</math></p> <p>The amount of energy supplied by the WTG are continuously monitored, hourly measured and recorded once a month.</p>
2	$EG_{GETCO, Export}$	<p>Total amount of electricity exported to the grid by the WTGs of project activity and WTGs of other owners connected to the same sub-station. The reading of meter at sub-station is taken by state utility along with representative of Suzlon every month and JMR is issued. The JMR shows electricity exported by all WTGs connected to the sub-station which includes WTGs of project activity and WTGs of other owners. <math>EG_{GETCO, Export}</math> is taken from JMR. It is continuously monitored, hourly measured and recorded once a month.</p>
3	$EG_{GETCO, Import}$	<p>Total amount of electricity imported from grid by the WTGs of project activity and WTGs of other owners connected to the same sub-station. The reading of meter at sub-station is taken by state utility along with representative of Suzlon every month and JMR is issued. The JMR shows electricity imported from grid by all WTGs connected to the sub-station which includes WTGs of project activity and WTGs of other owners. <math>EG_{GETCO, Import}</math> is taken from</p>





		JMR. It is continuously monitored, hourly measured and recorded once a month.
4	EG <sub>yard,y</sub>	The electricity generated by wind mill of the Project activity recorded by the Yard meters near the wind mill. The reading of meter at yard is taken by O&M contractor. This data will not be directly used for the calculation of emission reduction, State Utility will use this value for the apportionment calculation and the PP does not have any role in the calculation. The amount of energy supplied by the WTG are continuously monitored, hourly measured and recorded once a month.

WTGs of project activity are connected to yard meter. Meter reading of yard meter is taken by Suzlon every month. The reading of meter at sub-station is taken by state utility along with representative of Suzlon every month and JMR is issued. The JMR shows electricity exported to grid and electricity imported from grid by all WTGs connected to the sub-station which includes WTG of project activity and WTGs of other owners. EG<sub>SS,Export</sub> and EG<sub>SS,Import</sub> are taken from JMR. There is an ABT meter and one main meter and check meter at sub-station.

Based on meter reading at yard meter and meter reading at sub-station, apportioning is carried out by state utility and a certificate of share of electricity is issued by GETCO. This certificate of share of electricity provides net electricity supplied by WTG of project activity and this forms basis of emission reduction calculations. The apportioning is not under the control of PP and nor the data of apportioning is shared with PP. The PP has provided the equations used for apportioning net electricity supplied in PDD. The equations were checked by the validation team and found to be correct. The data of EG<sub>SS,Export</sub>, EG<sub>SS,Import</sub> and EG<sub>yard,y</sub> which are used in apportioning are available with PP and these parameters have been included in the list of monitoring parameters. Data of other parameters used in apportioning is not available with PP and as a result they are not included in list of monitoring parameters. In order to calculate electricity exported by WTG of project activity, EG<sub>SS,Export</sub> is multiplied by a ratio of yard meter readings of WTG of project activity and yard meter readings of all WTGs connected to sub-station. In order to calculate electricity imported by WTG of project activity, EG<sub>SS,Import</sub> is multiplied by a ratio of yard meter readings of WTG of project activity and yard meter readings of all WTGs connected to sub-station. Thus net electricity exported by WTG of project activity is then calculated by subtracting electricity imported by WTG of project activity from electricity exported by WTG of project activity as explained in PDD and same is found to be correct.

Continuous monitoring, hourly measurement and monthly recording will be carried out at yard metering point and meters at sub-station as per the requirement of the applied methodology AMS I.D/14/ version 17.0. Validation team had confirmed the same during site visit.

As per the applied methodology AMS I.D version 17.0, quantity of net electricity supplied to the grid in year EG<sub>y</sub> is required to be monitored, which is then directly used for emission reduction calculation. Furthermore, as cross checked during site visit, in case of the state of Gujarat, India EG<sub>y</sub> is the only parameter used for the emission reduction calculation and it is directly sourced from the GETCO Share certificate. This share certificate is a document provided by GETCO. The net electricity supplied to grid will be cross-checked with the sales invoice. The same approach is in consistence with the monitoring requirements of applied methodology AMS I.D/14/ version 17.0.

### **Management system and quality assurance**

The monitored data will be archived for two years beyond crediting period of last issuance whichever is later. The ABT meter, main and check meters are of accuracy class 0.2s. The yard meters are also of accuracy class 0.2s. The ABT, main and check meter at sub-station and yard meters will be calibrated once in three years. All the meters are under the custody of GETCO and GETCO will be responsible for



the calibration of the energy meters as per the industry standards. PP has proposed calibration of meter once in three year. Further, the national standard available to the project participant i.e. CEA notification 2006 allows the calibration to be done once in a five year for the interface meters ([http://www.cea.nic.in/reports/regulation/meter\\_reg.pdf](http://www.cea.nic.in/reports/regulation/meter_reg.pdf)). Thus applying a conservative approach PP will conduct calibration once in a three year which is acceptable to the assessment team as per the requirement of para 56 (f) of the project standard. The representatives of the O&M team of Suzlon were interviewed to verify the correctness of the procedure mentioned in the PDD. The validation team confirms that the description in the PDD correctly represents the metering system available at the project activity site and that the defined monitoring plan can be implemented in the context of the project activity. The operational and management structure along with detailed responsibilities are mentioned in PDD. The responsibilities and authorities of project management, data handling and recording and measurement methods procedure have been systematically described and the same was verified during the site visit.

URS confirms that the monitoring plan mentioned in the latest PDD is in accordance with the requirements mentioned in the monitoring methodology and the local regulatory requirements of the state utility. The monitoring arrangements described in the monitoring plan are feasible within the project design. URS is of the opinion that the monitoring plan will give opportunity for real measurement of achieved emissions reductions.

Suzlon the O&M service provider has an experience in monitoring and managing the O&M of numerous other wind farm CDM projects. The validation team therefore is of the opinion that the project participant through the O&M agency is capable of implementing the monitoring plan in the context of the project activity.

### 3.8 Estimation of GHG Emissions

The calculation and formulae as addressed in the approved baseline and monitoring methodology AMS-I.D version 17 /39/ have been applied.

$$ER_y = BE_y - PE_y - LE_y$$

The emission reductions  $ER_y$  by the project activity during the crediting period is the difference between the baseline emissions  $BE_y$ , project emissions  $PE_y$  and emissions due to leakage  $LE_y$ , as following:

#### Baseline Emissions:

The baseline emissions for the project activity have been calculated as the product of the net electricity supplied to NEWNE grid by the project activity and combined margin emission factor of the NEWNE grid. The combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM), has calculated to be 0.9528 tCO<sub>2</sub>/MWh for NEWNE which have been sourced from the Central Electricity Authority (CEA) CO<sub>2</sub> Baseline database version 7.0, in line with the "Tool to calculate the emission factor for an electricity system" /62/.

PLF for WTG 1 and WTG 2 is considered as 23.85% as per letters issued by Bank of Baroda who have sanctioned loan for WTG 1 and WTG 2. The letters states that PLF of 23.85% was considered by the bank. Thus, it is in line with the requirements of Annex 11, EB 48.

PLF considered in IRR as per the Bank Loan application /13/. The assessment team agrees with the PLF as it is in line with Annex 11 of EB 48.

#### Consideration about $EF_{grid,OM,y}$ :

The simple OM emission factor have been calculated using the Simple OM method as the low-cost/must run resources constitute less than 50% (for year 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11). The ex-ante vintage data has been used for the OM calculation of the project. The PDD was web-hosted on



and the latest version of CEA database available was version 7.  $EF_{grid,OM,y}$  is calculated as the most recent three years full generation weighted average of the emission factors, consequently the Operating Margin Emission Factor is determined to be 0.9842 tCO<sub>2</sub>/MWh for NEWNE grid. The  $EF_{grid,OM,y}$  is calculated and fixed ex-ante for the entire 1<sup>st</sup> renewable crediting period of 7 years .

### **Consideration about $EF_{grid,BM,y}$**

BM emission factor is calculated ex- ante based on the most recent information available at the time of submission of PP and is fixed for the entire crediting period i.e. year 2010-2011. Consequently the Build Margin emission factor is determined to be 0.8588 tCO<sub>2</sub>/MWh for NEWNE grid.

The baseline emission factor is calculated as the average of the operating margin emission factor and the build margin emission factor where the weights  $W_{OM}$  and  $W_{BM}$ , by default, are 75%  $W_{OM}$  and 25%  $W_{BM}$  . The combined margin emission factor for NEWNE India has been calculated to be 0.9528 tCO<sub>2</sub>/MWh for NEWNE grid which is fixed ex-ante for the entire 1<sup>st</sup> renewable crediting period of 7 years.

The PP has used official data for OM and BM published by Central Electricity Authority (CEA) CO<sub>2</sub> Baseline database version 7. CEA is an official source of Ministry of Power, Government of India). The validation team accepted the same as this is the latest version of the database available to the project participant at the time of submission of PDD for validation.

The ex-ante baseline emissions, which is a product of the net electricity supplied to the grid and the grid emission factor, has been calculated as tCO<sub>2</sub>/year.

The baseline emissions have been calculated as the product of the net electricity exported to NEWNE by the project activity (which is the sum of the individual net electricity exported to NEWNE each of WTGs) and combined margin emission factor of the NEWNE.

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

$$\begin{aligned} EF_{CO_2,grid,y} &= \text{Baseline emission factor} \\ &= 0.9528 \text{ tCO}_2/\text{MWh (for NEWNE grid)} \end{aligned}$$

$$\begin{aligned} EG_{BL,y} &= 3 \text{ MW} \times 365 \text{ days} \times 24 \text{ hrs} \times 23.85\% \\ &= 6268 \text{ MWh} \end{aligned}$$

$$\begin{aligned} BE_y &= (6268 \times 0.9528) \text{ tCO}_2\text{e} \\ &= 5972 \text{ tCO}_2\text{e} \end{aligned}$$

### **Project emissions**

The project is a renewable energy project and hence as per para 20 of the applied methodology AMS I.D/53/ version 17, the project emissions are zero.

### **Leakage**

Leakage has not been considered for the project activity. According to Methodology AMS I.D version 17/53/, if the energy generating equipment is transferred from another activity, leakage is to be considered. The proposed project activity uses new energy generating equipment which has been verified from the purchase orders/15/. Thus, not considering leakage for the project activity is appropriate.

**Emission Reductions:** Based on the values of baseline emissions, project emissions and leakage the ex-ante annual emission reductions have been calculated as 5,972 tCO<sub>2</sub>/year.



ERy = BEy  
= 5,972 tCO<sub>2</sub>e

Based on the above assessment, the validation team hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- (c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- (d) The baseline methodology has been applied correctly to calculate baseline emissions and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD

Validation team confirms that the estimates provided in the revised PDD version 03 are reasonable and the project participant has correctly applied the methodology; the calculations are complete and transparent and the data accuracy has been verified

### 3.9 Sustainable Development

The LoA of the host party i.e. India clearly presents a statement that the proposed CDM project contributes to sustainable development in India. The copy of LoA was made available to validation team and the same was found be correct. The proposed project is considered to contribute to sustainable development in India by utilizing renewable wind resources available in the project region, eliminating the environmental pollution caused by operation of fossil fuel-fired power plants and to achieve various social and economic benefits, such as the employment of the local people. Thus, in line with para 52 of VVS/50/ ver. 5.0, the validation team confirms that DNA of India has confirmed the contribution of the project to the sustainable development in India

### 3.10 Environmental Impacts

The project activity is expected to have positive impacts and no significant adverse environmental impacts are foreseen. Since, the project activity is an electricity generation from renewable source (i.e. wind energy) therefore no negative impact are envisaged. There is no mandatory legal requirement for carrying out an environmental impact assessment. The Ministry of Environment and Forests (MoEF), Government of India (GoI) notification dated September 14, 2006 and its amendment notification S.O.-3067(E) dated 1/12/2009 regarding the requirement of Environment Impact Assessment (EIA) studies states that any project developer in India needs to file an application to the Ministry of Environment and Forests (including a public hearing and an EIA) in case the proposed industry or project is listed in a predefined list. The list includes thirty nine project activities that require EIA studies. The wind power projects are not included in this list and thus an EIA study is not required.

According to this notification wind power projects do not require a prior environmental clearance and hence an EIA need not be carried out for this project activity. URS has verified all statutory clearances, including the commissioning certificate/16/ and URS confirms that all the clearances obtained are in accordance with the procedures required by the host party.



### 3.11 Local Stakeholders Consultation

Prior to the publication of the PDD version 01 on the UNFCCC website from 03/01/2013 to 01/02/2013, the project participant, Bhagwati Spherocast Private Limited, had organized two stakeholder meetings for WTG 1 and WTG 2. PP had sent invitation letters for stakeholder's consultation to the following identified relevant stakeholders: Local community, Local village administration, technology suppliers, local vendors who are also farmers and employees of the company.

Stakeholder meeting was conducted on 7/10/2010 at Maliya, Miyana, Village Vershamedi for WTG 1 and stakeholder meeting was conducted for WTG 2 on 07/10/2010 at Adodar, Porbandar.

A summary of comments has been provided by PP in section E.2 of the PDD and it is found that no adverse comment was received for the project activity. This has also been verified by assessment team during site visit at the WTGs site. Further, the interviewees confirmed that there was no adverse comment about the project and this project will lead to employment generation and better environmental conditions.

The validation team reviewed minutes of meeting/18/, attendance sheet/18/, and invitation letters provided by PP for both stakeholder meeting and details mentioned above were found to be correct. The local stakeholders appreciated the Project activity. The project has given employment to local people and the local villager viewed the project as contributing to local environmental benefits and social-economy. There were no negative comments from the stakeholders regarding the project activity.

It is also confirmed that local stakeholders were invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website. Thus in line with para 140 of VVS/50/ ver.05.0 validation team hereby confirms that the process of local stakeholder consultation is observed to be adequate. URS can confirm that the process is adequate and credible for local stakeholder consultation.

### 3.12 Comments by Parties, Stakeholders and NGOs

The PDD version 01 of 26/12/2012 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/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html>) invited to provide comments during a 30 days period from 03/01/2013 to 01/02/2013. 6 comments were received from Gujarat Forum on CDM and are given below.

1. Please explain location selection criteria
2. Does project owner had any kind of wind based energy business experience?
3. How many skilled/unskilled people from surrounding area were employed at this project during commissioning and operation as mentioned in social well being section?
4. List of stakeholders and minutes of stakeholder meeting is not attached with PDD.
5. What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?
6. What is Complain redress policy of company?

The two WTGs in this project were part of a bundled project in earlier webhosted PDD 'Captive Wind Bundle Project'. This project is listed under the category 'validation contract has been terminated' on UNFCCC website. This project was webhosted from 28/04/2011 to 27/05/2011 by Perry Johnson





Registrars Carbon Emissions Services. During webhosting of previous PDD, the project was received following comments. PP is requested to justify the same.

Comment by Babloo:

1. The PP states that they have considered 80% accelerated depreciation. However the PDD is silent on the tax shielding as a result from accelerated depreciation.
2. PPs cleverly do not consider the accounting tax offsetting in their companies while calculating the IRR. This is evident from the recently registered projects and those requesting registration.
3. The DOE is therefore requested to critically analyze how the accelerated depreciation benefit has been taken into account and confirm the accounting of the cash inflows as a result of the negative tax liability in the initial years. DOE should not be misguided by the financial presented by the PP or consultant which are custom made for CDM purposes and not the actual financial considered at the investment decision. Note that considering cash inflows results in an increase in the IRR making wind projects a profitable venture.
4. Please also check the offer from WTG supplier and Purchase Order while validating the PLF. It may be so that the third party report which is made after investment decision making - indicates a lower PLF. The PLF seems to be very low. Also check the tariff order.
5. Benchmark: No details are provided on the beta estimation. Is the beta levered or unlevered and what is the reason?? How is the beta appropriate for irr chosen?
6. Stakeholder consultation: No details provided on which all stakeholders attended the meeting.
7. Benchmark: The benchmark is too high. Even after considering CDM benefits the IRR will not cross the benchmark. Then WHY did the PP go ahead with this non-profitable venture?? This clearly indicates the benchmark is made high just to prove additionality and is not the real benchmark expected by the PP.
8. Why has the PP considered Reliance Infrastructure Ltd for beta determination when Reliance Infrastructure Ltd. has many other businesses other than pure power generation? How come the risk profile of Reliance Infrastructure Ltd match with the project activity which involves wind electricity generation?
9. What is the vintage considered for beta determination? Is considering only one year appropriate?
10. Why tax computations for beta are only considered for one year?? What is the basis for considering a particular vintage for the market returns, beta estimation and risk free returns?
11. Why the particular index is considered for calculating the market returns? DOE to evaluate whether the PP has made any other investments considering the same index. Only because a particular index results in a higher benchmark??
12. Project cost seems to be very high. Are the quotations real or fabricated?
13. Are REC benefits being claimed? How will the DOE ensure that the PP does not claim REC benefits during project operation?
14. DOE to submit a negative opinion in case the IRR does not cross the benchmark even after considering CDM benefits as it clearly indicates the projects unviability in any case. Why would any one invest in a loss making venture?
15. And if the PP can still go ahead with the project - it indicates that the benchmark is fabricated and is not considered by the PP while making the investment decision!! DOE to validate this critically!! How are the investment decisions really made???



16. DOE to check if the financials correctly apply the 10 year tax holiday - i.e. not liable for taxes for 10 years from the initial 15 years.

Comments by Mahesh Pandya

1. If Suzlon is going to operate WEG on behalf of proponents, any agreement has been done for that?
2. In case of failure of project or any other accident, who would be responsible for it? Suzlon or proponents?
3. What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?
4. Does project owner had any kind of wind based energy business experience?
5. How many skilled/unskilled people from surrounding area were employed at this project during commissioning and operation as mentioned in social well being section?
6. List of stakeholders and minutes of stakeholder meeting is not attached with PDD.
7. Stakeholder consultation section is not clear in PDD.

Comments by zhong zhou li

It is evident from the PDD that the values are consistent and it is definitely forged and cooked up values to show a non CDM project as a CDM project. What is this? 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. After careful study of PDD it is found that DPR/FR is in different versions made and submitted with different purposes to different agencies which is totally unacceptable, illegal and unethical. PP/Consultant may show some undertaking letter from bank manager to DoE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DoE. 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. In this particular project there is clear cut evidence that DPR/FR values are changed/ fabricated mischievously and intentionally. This 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. 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. This project is a fabricated and fake CDM project and must be rejected by the DOE right away. DOE should not support this kind of projects otherwise CDM EB should suspend this DOE for at least one year.

The global stakeholders comments received during web-hosting of project activity have been raised as CAR 10 in table 3 below. PP provided responses to CAR 10 and validation team has reviewed the same. The responses from PP were found to be adequate and CAR 10 was closed. Details on responses provided by PP and assessment of the same are mentioned in CAR 10 and please refer the CAR 10 for further details.



#### 4. VALIDATION OPINION

URS verification private limited (URS) has performed validation of the project activity “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat”, in India, with regard to the relevant requirements for CDM.

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

The host Party is India which fulfils the participation criteria and has approved the project and authorized the project participant BSPL. The DNA from India confirmed that the project contributes towards achieving sustainable development of the host country.

The project correctly applies the approved baseline and monitoring methodology AMS-I.D, “Grid Connected Renewable Electricity Generation”, version 17 of 03/06/2011.

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

The total emission reductions from the “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat” are estimated to be on an average 5,972 tCO<sub>2</sub>e per year over the selected renewable crediting period of 7 years. 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 URS’s opinion that the project participant is able to implement the monitoring plan.

In conclusion, it is URS’s opinion that the project activity “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat”, in India, as described in the PDD, version 04 of 03/02/2014, meets all relevant applicable UNFCCC requirements for the CDM and all relevant host Party criteria and correctly applies the baseline and monitoring methodology AMS-I.D, “Grid Connected Renewable Electricity Generation”, version 17 of 03/06/2011.

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



## **APPENDIX – 1**

### **VALIDATION PROTOCOL**

#### **FOR CDM PROJECT ACTIVITIES (SSC)**

**Project Title:** 3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat



**Table 1 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (CDM VVS and relevant paragraphs of CDM PCP)**

Requirement(s)	Ref	Validation Assessment				Conclusion Draft Final														
Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for a minimum of 30 days (45 days for A/R large scale projects), and PDD and comments have been made publicly available through a dedicated interface on the UNFCCC web site.	Para 13, 20, 21 of PCP	Validation Criteria	Yes/No	MoV	The PDD version 01 dated 26/12/2012 was made publically available on the CDM UNFCCC website and Parties stakeholders and NGOs through the CDM website ( <a href="http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html">http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html</a> ) invited to provide comments during 30 days period from 03/01/2013 to 01/02/2013. 6 (six) comments were received which are provided in Table 3 below.	<del>CAR 10</del> OK														
		PDD has been made publicly available from 03/01/2013 to 01/02/2013, as required for GSP comments	Yes	/DR/																
	Para 34, 35, 36 of VVS (Section E of VVS)	Comments received	Yes	/DR/																
		Comments made publicly available	Yes	/DR/																
		Is there any doubt with regard to authenticity of comments received	No	/DR/																
Whether part or complete project has been webhosted earlier? If yes, whether any Global Stakeholder comments were received during earlier webhosting?	Para 13, 20, 21 of PCP  Para 34, 35, 36 of VVS	Both the WTGs were webhosted earlier in a bundled project activity titled “Captive Wind Bundle Project” ( <a href="http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html">http://cdm.unfccc.int/Projects/Validation/DB/EA42U2JPXGBJQD7MK98Q6RKNWM6QBZ/view.html</a> ) to provide comments during 30 days period from 28/04/2011 to 27/05/2011 and several comments were received which are provided in Table 3 below. PP has been requested to provide replies to the the comments received during earlier webhosting of PDD in CAR 10				<del>CAR 10</del> OK														
Approval 2.1 Has the DNA of each Party involved in the proposed CDM project activity in section A.4 of the PDD provided a written letter of approval, which confirms The Party is a Party to the	Para 38 of VVS  Para 39 of VVS  Para 40 of VVS	<table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The Party is a Party to the Kyoto Protocol</td><td>Yes</td><td>HCA</td></tr><tr><td>Participation is voluntary</td><td>No</td><td>HCA</td></tr><tr><td>In case of host Party, the proposed PA contributes to the sustainable development of country</td><td>No</td><td>HCA</td></tr><tr><td>It refers to the precise proposed CDM project activity title in the PDD being submitted for registration</td><td>No</td><td>HCA</td></tr></table>	Validation Criteria	Yes/No	MoV	The Party is a Party to the Kyoto Protocol	Yes	HCA	Participation is voluntary	No	HCA	In case of host Party, the proposed PA contributes to the sustainable development of country	No	HCA	It refers to the precise proposed CDM project activity title in the PDD being submitted for registration	No	HCA			OK
Validation Criteria	Yes/No	MoV																		
The Party is a Party to the Kyoto Protocol	Yes	HCA																		
Participation is voluntary	No	HCA																		
In case of host Party, the proposed PA contributes to the sustainable development of country	No	HCA																		
It refers to the precise proposed CDM project activity title in the PDD being submitted for registration	No	HCA																		





<p>Kyoto Protocol</p> <p>Participation is Voluntary In case of host Party, confirming that the proposed CDM project activity contributes to sustainable development of the country It refers to the precise proposed CDM project activity title in the PDD being submitted for registration Whether the letter(s) of approval is unconditional with respect to (a)-(d) above? The letter(s) of approval has been issued by respective Party's DNA and is valid for the project PA under validation</p>	<p>Para 41 of VVS (Section F of VVS)</p>	<p>PP has provided the Letter of Approval from host country DNA Assessment team has cross checked it and found that the participation is voluntary. Title of the project activity is in line with the HCA of the host country (number 4/13/2012-CCC dated 11/10/2012) and it confirms that the project activity contribute to sustainable development of the project activity.</p> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The letter(s) of approval has been received directly from respective DNA</td><td>No</td><td>/DR/</td></tr><tr><td>The authenticity of letter(s) of approval verified with DNA</td><td>Yes</td><td>/DR/</td></tr><tr><td>The letter(s) of approval is valid for PA under validation</td><td>Yes</td><td>/DR/</td></tr></table> <p>Assessment team have verified from the DNA website (<a href="http://cdm.unfccc.int/DNA/index.html">http://cdm.unfccc.int/DNA/index.html</a>) as well as from the UNFCCC website (<a href="http://unfccc.int/parties_and_observers/parties/items/23.8552.php">http://unfccc.int/parties_and_observers/parties/items/23.8552.php</a>) that the Party is a Party to the Kyoto Protocol</p>	Validation Criteria	Yes/No	MoV	The letter(s) of approval has been received directly from respective DNA	No	/DR/	The authenticity of letter(s) of approval verified with DNA	Yes	/DR/	The letter(s) of approval is valid for PA under validation	Yes	/DR/	
Validation Criteria	Yes/No	MoV													
The letter(s) of approval has been received directly from respective DNA	No	/DR/													
The authenticity of letter(s) of approval verified with DNA	Yes	/DR/													
The letter(s) of approval is valid for PA under validation	Yes	/DR/													
<p>Whether each project participant has been authorized by at least one Party involved in a letter of approval.</p>	<p>Para 45 of VVS (Section G of VVS)</p>	<table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The PPs are listed in tabular form in the PDD and information is consistent with Appendix 1 of PDD</td><td>Yes</td><td>/DR/</td></tr><tr><td>No entities other than those authorized as PPs are included in A.4 &amp; Appendix 1 of the PDD.</td><td>Yes</td><td>/DR/</td></tr><tr><td>The approval of participation has been issued from the relevant DNA</td><td>Yes</td><td>/DR/</td></tr></table> <p>Assessment Team has cross checked the name of project participant as listed in section A.4 and appendix 1 of the PDD from the Letter of Approval from host country DNA</p>	Validation Criteria	Yes/No	MoV	The PPs are listed in tabular form in the PDD and information is consistent with Appendix 1 of PDD	Yes	/DR/	No entities other than those authorized as PPs are included in A.4 & Appendix 1 of the PDD.	Yes	/DR/	The approval of participation has been issued from the relevant DNA	Yes	/DR/	<p>OK</p>
Validation Criteria	Yes/No	MoV													
The PPs are listed in tabular form in the PDD and information is consistent with Appendix 1 of PDD	Yes	/DR/													
No entities other than those authorized as PPs are included in A.4 & Appendix 1 of the PDD.	Yes	/DR/													
The approval of participation has been issued from the relevant DNA	Yes	/DR/													
<p>The DNA has considered whether the proposed CDM project activity assists the host Party in achieving sustainable development</p>	<p>Para 50 of VVS (Section H of VVS)</p>	<table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The LoA (host Party) confirms the same</td><td>Yes</td><td>/DR/</td></tr></table> <p>Assessment Team has cross verified from the Letter of Approval from host country DNA that project activity contribute to the sustainable development in host country.</p>	Validation Criteria	Yes/No	MoV	The LoA (host Party) confirms the same	Yes	/DR/	<p>OK</p>						
Validation Criteria	Yes/No	MoV													
The LoA (host Party) confirms the same	Yes	/DR/													



Modalities of communications Validation the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories. Validation that the MoC statement has been correctly completed and duly authorized.	Para 53 of VVS (Section I of VVS)  Para 59 of VVS	<p>PP has submitted Modality of Communication (MoC) dated 26/07/2013. Further, the written confirmation that all entity related and personal details including specimen signature of officials signing the MoC are valid and accurate and they are duly authorized to sign MoC dated 26/07/2013</p> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Directly checked the evidence for corporate, personal identity and other relevant documentation</td><td>Yes</td><td>/DR/</td></tr><tr><td>Notarized documentation; or</td><td>Yes</td><td>/DR/</td></tr><tr><td>Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate</td><td>Yes</td><td>/DR/</td></tr><tr><td>MoC is received from PP/CME (except in the case of Notarized)</td><td>Yes</td><td>/DR/</td></tr><tr><td>The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked</td><td>Yes</td><td>/DR/</td></tr></table> <p>Your Assessment and Comment Here:</p> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Latest version of the form 'F-CDM-MOC' is used</td><td>Yes</td><td>/DR/</td></tr><tr><td>The information required as per F-CDM-MOC, including its Annex 1, is correctly filled</td><td>Yes</td><td>/DR/</td></tr><tr><td>The signatory in F-CDM-MOC and Annex 1 are same/consistent</td><td>Yes</td><td>/DR/</td></tr></table> <p>The MOC shall be crosschecked at the time of submission for request for registration. PP is requested to provide the MoC for the project activity.</p>	Validation Criteria	Yes/No	MoV	Directly checked the evidence for corporate, personal identity and other relevant documentation	Yes	/DR/	Notarized documentation; or	Yes	/DR/	Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate	Yes	/DR/	MoC is received from PP/CME (except in the case of Notarized)	Yes	/DR/	The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked	Yes	/DR/	Validation Criteria	Yes/No	MoV	Latest version of the form 'F-CDM-MOC' is used	Yes	/DR/	The information required as per F-CDM-MOC, including its Annex 1, is correctly filled	Yes	/DR/	The signatory in F-CDM-MOC and Annex 1 are same/consistent	Yes	/DR/	OK
Validation Criteria	Yes/No	MoV																															
Directly checked the evidence for corporate, personal identity and other relevant documentation	Yes	/DR/																															
Notarized documentation; or	Yes	/DR/																															
Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate	Yes	/DR/																															
MoC is received from PP/CME (except in the case of Notarized)	Yes	/DR/																															
The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked	Yes	/DR/																															
Validation Criteria	Yes/No	MoV																															
Latest version of the form 'F-CDM-MOC' is used	Yes	/DR/																															
The information required as per F-CDM-MOC, including its Annex 1, is correctly filled	Yes	/DR/																															
The signatory in F-CDM-MOC and Annex 1 are same/consistent	Yes	/DR/																															
Whether the PDD was completed using the latest version of the PDD form appropriate to the type of project activity.	Para 62 of VVS (Section J of VVS)	Yes. PP has used the F-CDM-SSC-PDD form version 4.1 dated 11/04/2012.	OK																														



State the project participants listed in the PDD and check with which of these project participants does URS have a contract for the projects validation.	Para 15 of PCP	<div>Yes, the URS has a contract with the Bhagwati Spherocast Pvt. Ltd. who has identified in the web hosted PDD.</div> <table><tr><td>Name of the PPs appears in the PDD (GSP) with which URS has validation contract</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Bhagwati Spherocast Pvt. Ltd.</td><td>Yes</td><td>/DR/</td></tr></table>	Name of the PPs appears in the PDD (GSP) with which URS has validation contract	Yes/No	MoV	Bhagwati Spherocast Pvt. Ltd.	Yes	/DR/	OK			
Name of the PPs appears in the PDD (GSP) with which URS has validation contract	Yes/No	MoV										
Bhagwati Spherocast Pvt. Ltd.	Yes	/DR/										
If the project participant(s) listed in the PDD published at international stakeholder consultation are not included in the PDD submitted with request for registration, a letter should be obtained from the withdrawn project participant(s) confirming its voluntary withdrawal from the proposed project activity.	Para 15 of PCP	<div>The PP listed in the PDD published at GSC is having signed contract with URS which is legally binding. PDD which is being submit with request for registration is same. There is no PP listed in PDD with RFR which was not there in web hosted PDD.</div> <table><tr><td>Name of the PPs in the PDD (RFR) with which URS has validation contract is consistent with the one in PDD (GSP)</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Is there any PP removed between PDD (GSP) and PDD (RFR)</td><td>Yes</td><td>/DR/</td></tr><tr><td>If yes, has such voluntary withdrawal is confirmed in writing from the PP.</td><td>Yes</td><td>/DR/</td></tr></table>	Name of the PPs in the PDD (RFR) with which URS has validation contract is consistent with the one in PDD (GSP)	Yes/No	MoV	Is there any PP removed between PDD (GSP) and PDD (RFR)	Yes	/DR/	If yes, has such voluntary withdrawal is confirmed in writing from the PP.	Yes	/DR/	OK
Name of the PPs in the PDD (RFR) with which URS has validation contract is consistent with the one in PDD (GSP)	Yes/No	MoV										
Is there any PP removed between PDD (GSP) and PDD (RFR)	Yes	/DR/										
If yes, has such voluntary withdrawal is confirmed in writing from the PP.	Yes	/DR/										
Confirm while submitting a request for registration – all of the project participants with a contractual relationship are still listed in the PDD.	Para 15 of PCP	It is here by confirmed that URS has contractual agreement with PP listed in the web hosted PDD and the same PP is still listed in the revised final PDD.	OK									
Project participants who are listed in the PDD (submitted for global stakeholder consultation) but who do not have a contractual relationship with URS for the purposes of the validation activity may be removed from the PDD which is submitted for registration	Para 15 of PCP	No PP was removed from the PDD submitted for registration compared to the one submitted for GSC.	OK									
URS may restart the validation activity through the	Para 16 of PCP	Not Applicable for this project activity as there is no change in PP.	OK									



new or revised contract with a different set of project participants by; Indicating that the first validation contract has been terminated and; Republishing the PDD or revised PDD for global stakeholder consultation.			
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**Table 2 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (CDM VVS and relevant paragraphs of CDM PS)**

Checklist Question(s)	Ref	Cross ref/ comment	MoV*	Validation Assessment	Conclusion															
SECTION A. Description of Project Activity					OK															
A.0. Cover page of PDD																				
A.0.1 Is the cover page of the PDD is correctly and completely filled?	PDD Page 5	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Title of the project activity</td><td>Yes</td></tr><tr><td>Version number of the PDD</td><td>Yes</td></tr><tr><td>Completion date of the PDD</td><td>Yes</td></tr><tr><td>Project participant(s)</td><td>Yes</td></tr><tr><td>Host Party(ies)</td><td>Yes</td></tr><tr><td>Sectoral scope and selected methodology(ies)</td><td>Yes</td></tr><tr><td>Estimated amount of annual average GHG emission reductions</td><td>Yes</td></tr></table> <p>As per the cover page of the PDD, The title of the project activity is “3 MW Captive Wind Project by Bhagwati Spherocast Pvt. Ltd. in Gujarat” and the version 01 of dated 26/12/2012. Bhagwati Spherocast Pvt. Ltd is project participant and estimated annual emission reduction is 6062 tCO<sub>2e</sub></p> <p>The project activity belongs to sectoral scope 1 [Energy Industries (renewable/non renewable sources)] and applied AMS I.D. version 17. The validation team confirms that the sectoral scope and methodology used are in line with the nature of project activity. Title of the project activity and name of the PP is corss verified with letter of Approval from host country DNA and it confirms that it is in line with as listed in section A.4 and appendix 1 of the PDD.</p>		Validation Criteria	Yes/No	Title of the project activity	Yes	Version number of the PDD	Yes	Completion date of the PDD	Yes	Project participant(s)	Yes	Host Party(ies)	Yes	Sectoral scope and selected methodology(ies)	Yes	Estimated amount of annual average GHG emission reductions
Validation Criteria	Yes/No																			
Title of the project activity	Yes																			
Version number of the PDD	Yes																			
Completion date of the PDD	Yes																			
Project participant(s)	Yes																			
Host Party(ies)	Yes																			
Sectoral scope and selected methodology(ies)	Yes																			
Estimated amount of annual average GHG emission reductions	Yes																			
A.1. Purpose and general description of the project activity																				
A.1.1 Does the Section A.1 of PDD contains information as required by CDM PS?	Para 31 of PS	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Describe the purpose of the project activity, including a summary of the scope of activities/measures that are to be implemented within the project activity</td><td>No</td></tr><tr><td>Explain how the project activity will reduce GHG emissions</td><td>No</td></tr></table>	Validation Criteria	Yes/No	Describe the purpose of the project activity, including a summary of the scope of activities/measures that are to be implemented within the project activity	No	Explain how the project activity will reduce GHG emissions	No	CL#02  OK									
Validation Criteria	Yes/No																			
Describe the purpose of the project activity, including a summary of the scope of activities/measures that are to be implemented within the project activity	No																			
Explain how the project activity will reduce GHG emissions	No																			





				or increase GHG removals	
				Indicate the sectoral scope(s) and type of the project activity	No
				Explain the contribution of the project activity to sustainable development	No
				<p>The description of project activity provided in section A.1 of the PDD is not as per the requirement specified in para 31 of PS and the guidelines on completing PDD, version 9 of EB 66. The following details are not provided in the PDD:</p> <ol style="list-style-type: none"> <li>1. Purpose of the project activity</li> <li>2. How the project activity will reduce GHG emissions</li> <li>3. Brief details of technology to be employed</li> <li>4. The scenario existing prior to the implementation of the project activity</li> </ol> <p>Whether project activity is a Greenfield, retrofication and modification in existing project activity.</p> <p>CL#02 is raised to explain the following –</p> <ol style="list-style-type: none"> <li>1. PDD refers to 2*1.25 MW capacity WTG in section A.1 &amp; A.3 of the PDD which is contradicting with the capacity mentioned in section A.1 of the PDD as well as the supporting documents provided by PP. PP is requested to clarify for the same.</li> <li>2. The PDD states “Education level in Rajkot and Porbandar districts are 74.16% and 68.62% respectively, which is lower than the state average. In terms of literacy rate, the districts rank 7th and 12th respectively, out of the 26 districts in the state”. PP is requested to provide the supporting evidences for the same.</li> <li>3. The Censas of India used in the PDD is not the latest Censes. PP is requested to clarify.</li> </ol> <p>PP is requested to provide the supporting evidences for all the statistics mentioned under the sustainable development criteria in section A.1 of the PDD</p>	



A.1.2 Does the Section A.1 of PDD contains additional information as required and Guidance for completing the PDD Form?	PDD Page 5	/PDD/	/DR/	Validation Criteria		Yes/No	CL#02  OK							
				Scenario existing prior to the implementation of the project activity		No								
				Baseline scenario as identified in Section B.4 of PDD		Yes								
				Estimate of annual average and total GHG emission reductions for the chosen crediting period		Yes								
				CL#02 has been raised for the following issue:  1) The scenario existing prior to the implementation of the project activity										
A.1.3 Is the description of the proposed project activity in the PDD is accurate, complete, and provides an understanding of the proposed CDM project activity?	Para 64-67 of VVS	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Is the proposed CDM project activity at existing facilities or utilizing existing equipments?</td><td>No</td></tr><tr><td>Is the physical site visit undertaken?</td><td>Yes</td></tr><tr><td>Is the type of project activity correctly indicated, if small scale project activity (else write not applicable)?</td><td>Yes</td></tr></table>		Validation Criteria	Yes/No	Is the proposed CDM project activity at existing facilities or utilizing existing equipments?	No	Is the physical site visit undertaken?	Yes	Is the type of project activity correctly indicated, if small scale project activity (else write not applicable)?	Yes	CL#02  OK
Validation Criteria	Yes/No													
Is the proposed CDM project activity at existing facilities or utilizing existing equipments?	No													
Is the physical site visit undertaken?	Yes													
Is the type of project activity correctly indicated, if small scale project activity (else write not applicable)?	Yes													
A.1.4 If the project activity involves the alternation of an existing installation or process, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	Para 68 of VVS	/PDD/	/DR/	The project activity does not involve alteration of existing installation and it is a greenfield project as also observed during site visit.  <i>It also needs to be cross checked with the supporting documents as discussed in CL#01</i>  PP is requested to provide the following documents-  <b>WTG -1 (1.5 MW for Vershmedi)</b>  1.GEDA; permission for setting 1.50 MW Vershmedi 2. Purchase Order for tabular tower for 1.5 MW 3. Purchase Order of transformer component of renewable energy 4. GETCO: Execution of agreement		CL#01  OK								



				<p>5. Purchase Order of Acquiring freehold/lease  6. Work order for civil work  7. Work order for electrical works  8. Work order for erection, Installation</p> <p>9. Office of the chief electrical inspector  10. O &amp; M with part consumable  11. Amendment in Purchase order  12. Insurance copy of WTG 1 &amp; 2 and supporting document for insurance</p> <p><b>WTG -2 (1.5 MW Porbunder)</b></p> <p>1. Email copy of : termination of contract  2. Link of old PDD bundle  3. Change in chronology  4. Prior Consideration Email copy  5. Lease deed copy  6. Freehold lease document  7. Work order for civil work  8. Work order for electrical works  9. Work order for erection, Installation  10. Purchase Order for tabular tower for 1.5 MW  11. Purchase Order of transformer component of renewable energy  12. GETCO: Execution of agreement  13. Declaration for No ODA  14. Declaration for debundling of WTGs</p> <p>PP to provide the supporting document for the technical lifetime of the project activity</p>	
A.1.5 Is all information provided consistent and in compliance with the actual situation or planning?	Para 69(a) of VVS	/PDD/	/DR/	<p>The proposed project activity is developed by Bhagwati Spherocast Pvt. Ltd, which involves generation of electricity from phase wise installations of two wind Turbine Generators (WTG) in Rajkot and Porbandar District in Gujarat.</p> <p>The PDD is not transparent on the implementation status of the proposed project activity. PP needs to provide the supporting documents for the same.</p>	<p>CL#01 CL#02</p> <p>OK</p>



A.1.6 Is all information with respect to project description deemed accurate and complete?	Para 69(b) of VVS	/PDD/	/DR/	Yes. The validation team has checked the evidences and conducted on site visit of the project and confirmed all information with respect to project description deemed accurate and complete.	OK								
A.1.7 If a physical site visit is not conducted, is it justified appropriately?	Para 69I of VVS	/PDD/	/DR/ /SV/	the site visit for the proposed project activity is done on 13/02/2013 & 14/02/2013	OK								
A.1.8 Are the documents/evidences consistent? Is there is any discrepancy in documents?	Praa 22 of VVS	/PDD/	/DR/	Yes, the documents/evidences are consistent. There is no discrepancy observed/	OK								
A.2. Location of project activity													
A.2.1 Is the host Party(ies) correctly indicated in the PDD?	A.2 of PDD	/PDD/	/DR/	As per section A.4 of the PDD, India is the host party to the proposed project activity. It is also cross verified with the HCA of the host country.	OK								
A.2.2 Is the Region/State/Province etc., correctly indicated in the PDD?	A.2 of PDD	/PDD/	/DR/	Region/State/Province etc., correctly indicated in the PDD . It is cross verified with the HCA of the project activity. The same is confirmed during the site visit and found correct	OK								
A.2.3 Is the City/Town/Community etc., correctly indicated in the PDD?	A.2 of PDD	/PDD/	/DR/	City/Town/Community etc. are correctly indicated in the PDD. It is cross verified with the HCA. However it needs to be cross verified with the supporting documents for the project activity.	OK								
A.2.4 Is the Physical/Geographical location correctly indicated in the PDD?	A.2 of PDD	/PDD/	/DR/	<div>As per the webhosted PDD, The proposed project activity is located in Vershamedi and Adodar village in Rajkot and Porbandar District respectively in Gujarat.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Information allow the unique identification of the proposed project activity i.e., geographical coordinates</td><td>Yes</td></tr><tr><td>Is map included in the PDD?</td><td>Yes</td></tr><tr><td>Is the description of location is limited to one page?</td><td>Yes</td></tr></table> <div>As per the webhosted PDD, the geographical coordinates of project activity are N 22<sup>0</sup> 58' 07.8" and E 70<sup>0</sup> 34' 06.5" for Vershamedi in Rajkot District and N 21<sup>0</sup> 34' 51.6" and E 69<sup>0</sup> 39' 50.3" for Adodar in Porbandar District in Gujarat.</div> <div>It is also cross verified during the site visit</div>	Validation Criteria	Yes/No	Information allow the unique identification of the proposed project activity i.e., geographical coordinates	Yes	Is map included in the PDD?	Yes	Is the description of location is limited to one page?	Yes	OK
Validation Criteria	Yes/No												
Information allow the unique identification of the proposed project activity i.e., geographical coordinates	Yes												
Is map included in the PDD?	Yes												
Is the description of location is limited to one page?	Yes												



A.3. Technologies and/or measures							
A.3.1 Does the PDD defines the technologies and measures to be employed and/or implemented by the project activity including a list of the facilities, systems and equipment that will be installed and/or modified by the project activity?	A.3 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#06  OK
				The age and average lifetime of the equipment defined based on manufacturer's specifications and industry standards		Yes	
				Existing and forecast installed capacities, load factors and efficiencies defined		No	
				Monitoring equipments and locations are defined.		No	
				Energy and mass flows and balances of system and equipments included in the project activity		NA	
				Is description complete with regards to as how the same types and levels of services provided by the project activity would have been provided in the baseline scenario		NA	
				CAR#06 is raised  The technical specifications of the WTGs involved in the project activity are provided as Appendix 7 which is not in line with the PDD template. Further the technical specifications provided in the Appendix 7 of the PDD refers to WTGs of S-66 model of Suzlon make, which is not correct. PP is requested to refer the correct model and make of the WTGs involved in the project activity and provide the technical specifications of the same in the relevant section and also provide the supporting evidences for the same. Further, supportive evidences for technologies to be employed have not submitted.			
A.3.2 Does the PDD contains list of equipments in the scenario existing prior the implementation of PA and/or the baseline scenario?	A.3 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	OK
				Facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity		No	
				Facilities, systems and equipment in the baseline scenario, as established in section B.4 of PDD.		No	
The project activity is green field activity and equipment existing in pre-project scenario is not applicable. The same was verified through purchase order, commissioning certificate and site visit.							





A.3.3 Is the existing scenario prior to the implementation of the project activity same as baseline scenario identified in Section B.4 of PDD?	A.3 of PDD	/PDD/	/DR/	Yes, the existing scenario prior to the implementation of the project activity same as baseline scenario identified in Section B.4 of PDD.  Baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources.	OK												
A.3.4 Is the scale and type of the project activity correctly identified?	Para 31 of PS	/PDD/	/DR/	Yes, the scale and the type of project activity are correctly identified and requirement of para 31 of project standard stands addressed. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Sectoral scope(s) correctly indicated</td><td>Yes</td></tr><tr><td>Type of project activity correctly indicated</td><td>Yes</td></tr><tr><td>Description on environmentally safe and sound technology(ies) included</td><td>Yes</td></tr><tr><td>Description on know-how transferred to the host Party, if applicable, included.</td><td>Yes</td></tr><tr><td>Description on know-how transferred to the host Party, if applicable, included.</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	Sectoral scope(s) correctly indicated	Yes	Type of project activity correctly indicated	Yes	Description on environmentally safe and sound technology(ies) included	Yes	Description on know-how transferred to the host Party, if applicable, included.	Yes	Description on know-how transferred to the host Party, if applicable, included.	Yes	OK
Validation Criteria	Yes/No																
Sectoral scope(s) correctly indicated	Yes																
Type of project activity correctly indicated	Yes																
Description on environmentally safe and sound technology(ies) included	Yes																
Description on know-how transferred to the host Party, if applicable, included.	Yes																
Description on know-how transferred to the host Party, if applicable, included.	Yes																
A.4. Party(ies) and project participant(s)																	
A.4.1.Is the table required for the indication of Party(ies) and project participant(s) correctly applied?	Para 33 of PS  A.4 of PDD	/PDD/	/DR/	Yes. The table required for the indication of Party (ies) and project participant(s) correctly applied in section A.4 of the PDD. India is the host party to the proposed project activity and Bhagwati Spherocast Pvt. Ltd, Gujarat is a project participant which is public entity.	OK												
A.4.2.Is all information provided in consistency with details provided by further chapters of the PDD (in particular Appendix 1)?	A.4 of PDD	/PDD/	/DR/	Yes. The information provided for project participant in section A.4 of the PDD is consistent to the information provided in Appendix 1 of the PDD.	OK												
A.5. Public funding of project activity																	
A.5.1.Does the information on public funding provided conform to the actual situation or planning as presented by	A.5 of PDD	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Does project receives any public funding?</td><td>No</td></tr><tr><td>Is the funding from Parties included in Annex I to Kyoto Protocol?</td><td>No</td></tr></table>	Validation Criteria	Yes/No	Does project receives any public funding?	No	Is the funding from Parties included in Annex I to Kyoto Protocol?	No	CL#01  OK						
Validation Criteria	Yes/No																
Does project receives any public funding?	No																
Is the funding from Parties included in Annex I to Kyoto Protocol?	No																



the project participant(s)?				<div> <div>If yes, information regarding public funding is provided?</div> <div>No</div> </div> <p>PP is requested to explain the project financing detail in the PDD. PP to provide the evidence for the No public Funding</p>	
A.5.2. Is all information provided consistent with details provided by further chapters of the PDD (in particular Appendix 2)?	A.5 of PDD	/PDD/	/DR/	PP to provide the evidence for the No public Funding.	CL#01 OK
A.5.3 In case of public funding from Annex I Parties, is it confirmed that such funding does not result in a diversion of official development assistance?	Para 34 of PS	/PDD/	/DR/	PP to provide the evidence for the No public Funding.	CL#01 OK
<b>A.6. Debundling of project activity (section for SSC PAs)</b>					
A.6.1. Is it confirmed that proposed project activity is not a debundled component of large scale project activities?	A.6 of PDD	/PDD/	/DR/	Validation Criteria	Yes/No
				Is there any registered CDM, including requested for registration, project activity with the same PPs?	N
				Is it in the same project category and technology/measure?	N
				Is it registered, including requested for registration, within previous 2 years	N
				Is the project boundary within 1 km of the project boundary of proposed small scale activity at the closest point?	N
				If the answer to above questions is yes but it is confirmed the combined capacity of previous projects is within the SSC thresholds for that type? (else write not applicable)	NA
				Is the assessment complies with the latest version of "Guidelines on assessment of de-bundling for SSC project activities"	Y
				The PP is requested to provide the details of other CDM projects are being developed by Bhagwati Spherocast Pvt. Ltd and the CDM projects submitted for request for registration.	



A.6.2. Is it confirmed that requirements related to Type I projects have been assessed appropriately?			/PDD/	/DR/	Validation Criteria It has been confirmed how Type I projects are not debundled component of large scale project activity in case two or more projects are taking place within 1 km by the same project participants		Yes/No N	CL#01  OK
					Please refer section A.6.1 above.			
A.6.3. Is it confirmed that requirements related to transport projects have been assessed appropriately?			/PDD/	/DR/	Validation Criteria The assessment is done by excluding the criteria of within 1 km. It is confirmed that project is not a debundled component of large scale project activity.		Yes/No NA NA	OK
					This section is not relevant to project activity since project activity is not transport project.			
A.7. Bundling of project activity (section for SSC PAs)								
A.7.1. Is it confirmed that proposed project activity is a bundled project activity?		Para 9 of PDD	/PDD/	/DR/	Validation Criteria The project activity is a bundled project activity. The F-CDM-SSC-BUN correctly is provided? The project confirms to the General principles of bundling		Yes/No NA NA NA	OK
SECTION B. Application of selected applied/approved baseline and monitoring methodology								
B.1. Reference of methodology								
B.1.1 Is the reference to the selected methodology consistent with the CDM website?		B.1 of PDD  Para 35 of PS	/PDD/	/DR/	Validation Criteria The number of the selected methodology is correct The title of the selected methodology is correct The version of the selected methodology is correct		Yes/No Yes Yes Yes	OK
					Yes. The reference to the selected methodology is consistent with the CDM website. The web link provided in PDD as follows:  <a href="http://cdm.unfccc.int/methodologies/DB/RSCTZ8SKT4F7N1CFDXCSA7BDQ7FU1X">http://cdm.unfccc.int/methodologies/DB/RSCTZ8SKT4F7N1CFDXCSA7BDQ7FU1X</a>			



B.1.2 Is the reference to any tools, standards or guidelines as required by the methodology provided?	Para 36 of PS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#07-  OK
				The title of tools/guidelines/standards is correct		Yes	
				The version of tools/guidelines/standards is correct		No	
				The PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version available. PP is requested to use the latest versions of the same.			
B.1.3 Is the selected methodology and referenced tools/standards/guidances are valid at the time of request for registration?	Para 70-71, 75 VVS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#07  OK
				The selected methodology is valid at request for registration		No	
				The reference tools/guidelines/standards/EB decision are applied correctly		Yes	
				The PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version available. PP is requested to use the latest versions of the same.			
B.2. Applicability of methodology and/or Project activity eligibility							
B.2.1 Does the PDD contains information as why the selected approved methodology applicable to the project activity?	Para 38 of PS  B.2 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#12  OK
				All applicability conditions of selected methodology included		Yes	
				Applicability conditions are consistent with the selected methodology(ies)		Yes	
				Justification for each applicability conditions is provided		No	
				All applicability conditions of referred tools/standards/guidelines included		Yes	
				Applicability conditions are consistent with the referred tools/standards/guidelines		Yes	
				Justification for each applicability conditions is provided		Yes	
				Table 2 for Para 2 “Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A2) applies is included in Table 2” listed in applicability condition Sr. No. 2.of the methodology AMS-I.D. version 17 is not provided in the PDD.			



B.2.2Is the justification provided in the PDD based correctly quoted and interpreted?	Para 76 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	OK	CAR#12-CL#01	
	B.2 of PDD			Justification against each applicability conditions is critically explained/substantiated inB.2 of PDD		No			
				Is explanation of documentation used consistent with Appendix 3 of PDD, if used		NA			
				The information in PDD is compared/cross checked with other sources, if available, using local expertise and sectoral expert		No			
				Table 2 for Para 2 “Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A2) applies is included in Table 2” listed in applicability condition Sr. No. 2.of the methodology AMS-I.D. version 17 is not provided in the PDD. PP is requested to provide the supporting evidences related to project activity.					
B.2.3 Is the applicability of the selected methodology satisfied/met?	Para 76 of VVS  Para 78, 81 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	OK	CAR#12-CL#01	
				The selected methodology is applicable to project activity		Yes			
				Is there any deviation from methodology found or applied		No			
				Is there any clarification that has been sought or applied in the project activity		No			
				Please refer above mentioned section B.2.2					
B.2.4Is it confirmed that the project activity meets the SSC eligibility requirements?	Para 81 of PS	/PDD/	/DR/	Validation Criteria		Yes/No	OK		
	B.2 of PDD  Para 150 of VVS			The PDD contains complete and accurate description of project type(s) i.e., Type I, II and/or III		Yes			
				If Type I project activity, the maximum output capacity does not exceed 15 MW(e) and such capacity of generator in case turbine-generator systems are used (more electrical or mechanical systems).		Yes			
				If Type I project activity, the maximum capacity does not exceed 45 MWth for biomass, biofuels and biogas projects (for thermal systems)		NA			
				If case of thermal application of solar energy projects the maximum output does not exceed 64,000 m2 for flat plate or evacuated tubular collector.		NA			
				If Type II project activity, the maximum output capacity does not exceed 60 GWh (e) per year or an appropriate equivalent e.g. 180 GWh (th) per year		NA			





				If Type III project activity, the GHG emission reductions does not exceed 60,000 tCO <sub>2</sub> e per year in any year of the crediting period If project activity uses more than one component, it is confirmed that each component is within the thresholds for each type The project activity confirms to the requirements of latest version of "General guidelines to SSC CDM methodologies"	NA NA Yes		
<b>B.3. Project boundary</b>							
B.3.1 Does the project boundary include the physical delineation of the proposed CDM project activity?	B.3 of PDD	/PDD/	/DR/	Validation Criteria The flow diagram of the project boundary included The flow diagram consistent with the information in section A.3 of PDD The flow diagram indicates the GHG sources included in the project boundary The data and parameters to be monitored are indicated The project boundary information consistent with situation observed during physical site visit, if conducted  Section B.3 of the PDD refers to western (regional) grid in the project boundary diagram. PP is requested to justify the same	Yes/No Yes No NA NA No		CAR#03  OK
B.3.2 Are all emission sources and gases related to the baseline scenario, project scenario clearly identified and described in project boundary in a complete and transparent manner?	Para 40 of PS B.2 of PDD	/PDD/	/DR/	Validation Criteria The table included for GHG sources included The inclusion/exclusion is justified for GHG sources in the PDD  Not applicable as the project activity is a small scale project	Yes/No NA NA		OK



B.3.3 Is the project boundary consistent with the observations made during site visit.	Para 83, 84 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#03  OK
				The project boundary is based on objective evidences		Y	
				The project boundary as defined in the PDD is consistent with the observation made during site visit		N	
				The inclusion/exclusion of the GHG sources is based on objective evidences, wherever possible		NA	
				Please refer CAR#03 raised in section A.3.1 above			
B.3.4. Are there emission sources that will be affected by the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology?	Para 87 of VVS	/PDD/	/DR/	There are no emission sources that will be affected bu the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emission reductions and are not addressed by the selected approved methodology.			OK
B.4. Establishment and description of baseline scenario							
B.4.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology/tool and has the application of the tools as per methodology been consulted, if the Tool(s) are required by the methodology?	Para 89 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	OK
				The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied?		Yes	
				If the selected methodology requires the use of tools to establish the baseline scenario, the specific guidance in the methodology supersedes the corresponding requirements of the tool.		NA	
				The baseline scenario described in the PDD is in accordance with the requirements of the applied methodology AMS-I.D. Version 17.			
B.4.2. Are all potential realistic and credible alternative scenarios listed in the	Para 90 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	OK
				The alternative scenarios considered by the project participants		NA	



methodology considered in identification of the most reasonable baseline scenario? Are all scenarios reasonable in the con-text of the proposed CDM project and no reasonable alternative scenario has been excluded?				<p>and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity.</p> <p>The identified alternative scenarios are appropriate based on financial expertise, local and sectoral knowledge of the assessment team.</p> <p>No alternative scenario has been excluded.</p>	<p>NA</p> <p>NA</p>		
				Since, Methodology prescribes baseline, hence no other baseline scenarios are to be determined.			
B.4.3 Is there a verifiable description of the baseline scenario? Does this include a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	Para 91, 92 of VVS	/PDD/	/DR/	<p>Validation Criteria</p> <p>The information (assumptions, calculations, rationales used in the PDD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.</p> <p>The information (as mentioned above) has been crosschecked from other sources and/or with local expert.</p> <p>The PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed</p>	<p>Yes/No</p> <p>Yes</p> <p>No</p> <p>Yes</p>		CL#01 OK
				Please refer section B.4.1 above. PP also needs to provide the supporting documents for the same.			
B.4.4. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario, including relevant national and/or sectoral policies and circumstances?	Para 93 of VVS	/PDD/	/DR/	<p>Validation Criteria</p> <p>All applicable CDM requirements have been taken into account in the identification of the baseline scenario.</p> <p>The relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector have been considered appropriately</p>	<p>Yes/No</p> <p>Yes</p> <p>NA</p>		CL#01 OK
				Yes. All applicable CDM requirements have been taken into account in the identification of the baseline scenario and in consistent with the relevant national and/or sectoral policies and circumstances. The validation team needs to check all the evidences. PP to provide the supporting evidences.			



B.5. Additionality							
B.5.1.Does the PDD clearly demonstrate the additionality using the approach as specified in the methodology and by following all the required steps?	B.5 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#08  OK
				The discussion on additionality is included in the PDD as per the applied methodology and/or tools referred therein		Yes	
				The compliance and outcome of each required step in the applied methodology and/or tool is indicated in clear and transparent manner in the PDD		Yes	
				The method selected to demonstrate additionality (e.g. investment analysis or barrier analysis) is indicated.		Yes	
				All data used (variables, parameters, data sources, etc.), how the additionality of the project activity is demonstrated, is transparently included in the PDD		Yes	
				If investment analysis is used, list all relevant assumptions and parameters used in the analysis is included.		Yes	
				The benchmark applied, wherever applied, is clearly indicated.		Yes	
				The credible scenarios compared described where cost comparison is used.		NA	
				The barriers are substantiated for key facts, assumptions rationale and credibility in demonstrating additionality.		NA	
				The prior consideration of the CDM in accordance with applicable provisions related to the demonstration of prior consideration of the CDM included.		Yes	
				1. Source document have not been provided for PLF of WTG-1(B17) and WTG-2(B20) in Key Inputs Sheet.			
				2. Cost of WTG-2 with Tower (G28) is not correct in Key Inputs Sheet.			
				3. Cost of row no. 29 to 37 in Key Inputs Sheet is not mentioned in source document.			
				4. To check Loan Details 43 to 46, source document (Loan Sanction Letter) has not been provided.			
				5. Site Link is not correct for Income Tax Rate (65) in Key Inputs Sheet.			



				<div>6. Minimum Alternative Tax Rate (F73) is not correct and Site Link is also not correct for MAT Rate (66) in Key Inputs Sheet.</div> <div>7. CER Price (B78) has not been mentioned in Key Inputs Sheet.</div> <div>EURO Rate (B79) is not correct and site link is also not correct for</div> <div>1. this. in Key Inputs Sheet.</div> <div>2. For O/M Cost of WTG-1, source document has not been provided.</div> <div>3. O/M Cost of WTG-2 is not correct as per source document provided.</div> <div>4. Source documents have not been mentioned for Insurance Cost for WTG-1 and WTG-2.</div> <div>5. Escalation on Admn. Cost (V59) is not correct in Key Inputs Sheet.</div> <div>6. Site Link has not been mentioned for Inflation Prices in Benchmark Sheet.</div> <div>7. Key Inputs data have not been mentioned in the PDD.</div> <div>8. (U37) and (V37) in Profit &amp; Loss Sheet are not correct</div>		
B.5.2. Is the discussion on the prior consideration of CDM consistent with the starting date of the project?	Para 105,106 of VVS	/PDD/	/DR/	Validation Criteria	Yes/No	CAR#04 <del>CL#01</del>  OK
				The start date of the project activity as indicated in the PDD conforms to the glossary of CDM terms	No	
				The date of publication of the PDD is prior to the start date of the project activity	No	
				The start date of the project activity is on or after 2nd August 2008	Yes	
				The start date of the project activity is before 2nd August 2008	No	
				The prior consideration of CDM is demonstrated as per the requirement	Yes	
				PP needs to provide supporting for the start date of the project activity as per para		



				7 of PCP, Version 03.1, Annex 4 of EB 70.			
B.5.3. Is the start date of the project activity before 2nd Aug 2008 (the start date is prior to the date of publication of the PDD for global stakeholder consultation and new methodology is not proposed) How is the prior consideration of CDM demonstrated?	Para 28 of PS Para 108,109,110 of VVS	/PDD/	/DR/	Validation Criteria	Yes/No		OK
				The evidence of awareness of CDM prior to the project start date is provided	NA		
				The evidence of benefits of CDM were decisive factor to proceed with the project provided	NA		
				The provided evidence confirms the requirements as per para 108(a) of VVS or the latest guidance on this matter	NA		
				The continuing and real actions were taken to secure the CDM status for the project activity	NA		
				The provided evidence confirms the requirements as per para108(b) and 109 of VVS or the latest guidance on this matter	NA		
				The gap between documented evidence is less than 2 years	NA		
				The gap between documented evidence is between greater than 2 years but less than 3 years but is justified based on the context of evidence and information assessed	NA		
				The gap between documented evidence is greater than 3 years	NA		
				The timelines based on the investment decision, construction work commencement, key purchase order places, commissioning etc., with regard to implementation are included in the PDD.	NA		
				The prior consideration of CDM is demonstrated as per the requirement	NA		
				Since, proposed project activity having start date after 02/08/2008 hence this section is not applicable to this project.			





B.5.4. For project activity with a start date on or after 2nd August 2008 (for which the start date is prior to the date of publication of the PDD for global stakeholder consultation and new meth is not proposed) How is the prior consideration of CDM demonstrated?	Para 27 of PS Para 107 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#04 CL#01  OK
				The prior consideration of CDM was notified to host Party DNA and UNFCCC as per the applicable form and guidance		Yes	
				The prior consideration notification has been confirmed from the UNFCCC website		No	
				The communication between PP and DNA and/or UNFCCC in this regard were found satisfactory		No	
				The prior consideration of CDM is demonstrated as per the requirement		No	
				The start date of the project activity is not provided in section B.5 of the PDD. PP is requested to provide the same and justify with the supporting evidence. Further the basis for selecting the starting date of the project activity is not provided in the section C.1.1.			
B.5.5. If the baseline scenario is not prescribed in the approved methodology, is it confirmed that the list of identified credible alternatives to the project activity in the PDD selected to determine the most realistic baseline scenario is appropriate?	Para 113, 114 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	OK
				The list of alternatives includes (in PDD) as one of the options that the project activity is undertaken without being registered as a proposed project activity		No	
				The list contains all plausible alternatives based on local and sectoral knowledge of the validation team		No	
				The list contains viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity		No	
				The alternatives comply with all applicable and enforced legislation.		No	
				The methodology AMS I.D has prescribed the baseline scenario hence no further analysis is required.			



B.5.6. If an investment analysis has been used, has it been demonstrated that the proposed project activity is not the most economically or financially attractive alternative, or is not economically or financially feasible, without the revenue from the sale of CERs.	Para 117, 119 of VVS	/PDD/	/DR/	Validation Criteria	Yes/No	CAR#08 CL#01 CAR#07  OK
				The latest version of “Guidelines on the assessment of investment analysis” (EB62 Annex5 Version 5) is applied	No	
				The proposed project activity would produce no financial or economic benefits other than CDM-related income.	No	
				The documented costs associated with the proposed project activity and the alternatives identified demonstrate that there is at least one alternative which is less costly than the proposed project activity (Simple Cost Analysis)	No	
				The proposed project activity is less economically or financially attractive than at least one other credible and realistic alternative (Investment Comparison Analysis)	No	
				The financial returns of the proposed project activity would be insufficient to justify the required investment (Benchmark Analysis)	No	
				The investment analysis approach is appropriate in the context of the project activity.	No	
				CAR#08 is raised to justify		
1. Source document have not been provided for PLF of WTG-1(B17) and WTG-2(B20) in Key Inputs Sheet.						
2. Cost of WTG-2 with Tower (G28) is not correct in Key Inputs Sheet.						
3. Cost of row no. 29 to 37 in Key Inputs Sheet is not mentioned in source document.						
4. To check Loan Details 43 to 46, source document (Loan Sanction Letter) has not been provided.						
5. Site Link is not correct for Income Tax Rate (65) in Key Inputs Sheet.						
6. Minimum Alternative Tax Rate (F73) is not correct and Site Link is also not correct for MAT Rate (66) in Key Inputs Sheet.						



				<p>7. CER Price (B78) has not been mentioned in Key Inputs Sheet.</p> <p>8. EURO Rate (B79) is not correct and site link is also not correct for this. in Key Inputs Sheet.</p> <p>9. For O/M Cost of WTG-1, source document has not been provided.</p> <p>10. O/M Cost of WTG-2 is not correct as per source document provided.</p> <p>11. Source documents have not been mentioned for Insurance Cost for WTG-1 and WTG-2.</p> <p>12. Escalation on Admn. Cost (V59) is not correct in Key Inputs Sheet.</p> <p>13. Site Link has not been mentioned for Inflation Prices in Benchmark Sheet.</p> <p>14. Key Inputs data have not been mentioned in the PDD.</p> <p>(U37) and (V37) in Profit &amp; Loss Sheet are not correct</p> <p>CAR#07 is rased to</p> <ol style="list-style-type: none"><li>1. The PDD refers to "Tool for the demonstration and assessment of additionality"(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system"(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.</li><li>2. The "Glossary of CDM terms" referred in the PDD is of version 05 which is not the latest version available on the UNFCCC website. PP is requested to use the latest version.</li><li>3. PP is requested to provide the supporting evidences for all chronology of events mentioned in the section B.5.1 of the PDD.</li></ol> <p>CL#01 is raised to provide the supporting documents for WTG1 &amp; WTG2.</p>	
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B.5.7. Is the investment analysis complete and accurate?	Para 120 of VVS  B.2 of PDD	/PDD/	/DR/	Validation Criteria	Yes/No	OK	-CL#01 CAR#07 CAR#08
				The project has applied investment analysis	Yes		
				The financial indicator selected by the PP is suitable in the context of the project activity	No		
				Thorough assessment of all parameters and assumptions used in calculating the financial indicator is conducted	No		
				The parameters have been crosschecked against the third party or publicly available sources	No		
				The FSR, public announcement and annual financial report, as appropriate, have been reviewed with regards to the project activity and participants.	No		
				The correctness of the computation carried out and documented by PP is ensured.	No		
				The sensitivity analysis has been conducted to determine under what conditions variations in result would occur and the likelihood of these conditions.	No		
				The financial calculations, parameters, assumptions are as per the relevant and applicable clauses/paragraphs of the latest version of 'Guidelines on the assessment of investment analysis"	No		
				Refer section B.5.6 above.			
B 5.8 Whether the PLF study report is prepared after the decision making? If yes then whether the PLF used at the time of decision making documented?	Para 120 of VVS Section B.5 of PDD	/PDD/	/DR/	PP has considered PLF from the letter from the letter from Bank of Baroda. Further, during decision making, The same PLF is mentioned in Suzlon offer letter which were applicable at the time of decision making.	OK		
B 5.9 Are the input values used in the investment analysis valid and applicable at the time of the investment decision taken by the PP?	EB 62 Annex 5, Section B.5 of PDD	/PDD/	/DR/	CAR#07& CAR 08 1. Income Tax Rate mentioned in Key Assumption Sheet is not correct as per Income Tax Act. 2. Exchange Rate of 1 Euro in INR is not correct. 3. Calculation of Project IRR in IRR Sheet is not correct. 4. Site link mentioned for Default value for expected Return on Equity in Benchmark	CAR#07 CAR#08 OK		



				Sheet is not correct. 5. Inflation Rate mentioned in Benchmark Sheet is not correct. 6. Site link mentioned for % of Equity & % of Debt in Benchmark Sheet is not correct.													
B 5.10 Does the time period of the investment analysis reflect the expected operation of the underlying project activity (technical lifetime)? In case shorter period is chosen, has the fair value of project activity assets included at the end of assessment period?	EB 62, Annex 5, Section B.5 of PDD	/PDD/	/DR/	IRR calculations have been carried out for 20 year and lifetime has been considered as 25 years	OK												
B 5.11 Is depreciation calculated in accordance with normal accounting practice in the Host Country?	Section B 5 of PDD	/PDD/	/DR/	PP has considered 4.75% as the rate of book depreciation rate which is correct.	OK												
B.5.12. If a benchmark is used, is it confirmed that it is suitable in the context of the project activity?	Para 121 of VVS B.5 of PDD EB51 Annex 59 EB40 Para40	/PDD/	/DR/	<table border="1"><thead><tr><th>Validation Criteria</th><th>Yes/No</th></tr></thead><tbody><tr><td>The project has applied benchmark analysis</td><td>No</td></tr><tr><td>The type of benchmark applied is suitable for the type of financial indicator</td><td>No</td></tr><tr><td>The risk premium, as appropriate, applied in determining the benchmark reflects the risk associated with the project type/activity</td><td>No</td></tr><tr><td>It is reasonable to assume that no investment would be made at a rate of return lower than benchmark.</td><td>No</td></tr><tr><td>The applied benchmark is determined as per the relevant and applicable clauses/paragraphs of the latest version of 'Guidelines on the assessment of investment analysis'</td><td>No</td></tr></tbody></table> Refer section B.5.6 above.	Validation Criteria	Yes/No	The project has applied benchmark analysis	No	The type of benchmark applied is suitable for the type of financial indicator	No	The risk premium, as appropriate, applied in determining the benchmark reflects the risk associated with the project type/activity	No	It is reasonable to assume that no investment would be made at a rate of return lower than benchmark.	No	The applied benchmark is determined as per the relevant and applicable clauses/paragraphs of the latest version of 'Guidelines on the assessment of investment analysis'	No	CL#01 CAR#07 CAR#08  OK
Validation Criteria	Yes/No																
The project has applied benchmark analysis	No																
The type of benchmark applied is suitable for the type of financial indicator	No																
The risk premium, as appropriate, applied in determining the benchmark reflects the risk associated with the project type/activity	No																
It is reasonable to assume that no investment would be made at a rate of return lower than benchmark.	No																
The applied benchmark is determined as per the relevant and applicable clauses/paragraphs of the latest version of 'Guidelines on the assessment of investment analysis'	No																



B 5.13 Whether beta selected for calculation of benchmark (if applicable) is conservative and whether justification provided for selection of companies for beta.?	Para 121 of VVS B.5 of PDD	/PDD/	/DR/	PP has used default return on equity as per EB 62 Annex 5 as the benchmark for this project activity. Thus, this clause is not applicable.	OK
B 5.14 Whether benchmark is based on parameters that are standard in the market? If so whether cost of equity is calculated using values provided in Appendix A of latest version of Guidelines on assessment of investment analysis or it is calculated using best financial practices?	EB 62 Annex 5, B.5 of PDD	/PDD/	/DR/	The default benchmark determination on the basis of nominal return on equity and inflation rate as per Appendix A of 'Guidelines on the Assessment of Investment Analysis' is used.	OK
B 5.15 Whether discount rates and benchmark derived in line with requirements in latest version of Tool for the demonstration and assessment of additionality, as applicable?	EB 70, Annex 8, B.5 of PDD	/PDD/	/DR/	The default benchmark determination on the basis of nominal return on equity and inflation rate as per Appendix A of 'Guidelines on the Assessment of Investment Analysis' is used	OK





B.5.16. Does the investment analysis rely on the values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activity?	Para 121 of VVS	/PDD/	/DR/	Validation Criteria	Yes/No		CL#01 CAR#07 CAR#08  OK
				The FSR has been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed	NA		
				The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the appropriateness of the values applied is validated as justified	NA		
				The input values from the FSR are valid and applicable at the time of investment decision	NA		
				The input values have been cross checked, as appropriate, and confirmed by local and sectoral expertise	No		
				Refer section B.5.6 above.			
B.5.17. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	Para 124, 125, 126 of VVS	/PDD/	/DR/	Validation Criteria	Yes/No		OK
				Is it indicated in the PDD that which barrier (as defined in the applicable tool/methodology) is applied	NA		
				Is the barrier analysis allowed by the approved methodology(ies)	NA		
				Is it demonstrated that issues that have direct impact on the financial returns of the project activity are not considered barriers	NA		
				Is it demonstrated that barriers are real and objective as per EB50 Annex13 (as per relevant clauses specific to the type of barrier selected)	NA		
				The available evidences in this regard have been assessed and confirmed to exist, based on the interview with individuals (members of industry, government official and local experts, if necessary)	NA		
				The barriers listed in the PDD confirmed from other independent sources such as relevant national legislation, surveys of local conditions and national or international statistics.	NA		
				Is it confirmed that barriers would prevent the proposed CDM project activity but not at least one of the alternatives, in particular the identified baseline scenario	NA		



				<table><tr><td>Is it confirmed that each selected barrier is credible</td><td>NA</td></tr></table> Barrier analysis is not used for the project activity.	Is it confirmed that each selected barrier is credible	NA																											
Is it confirmed that each selected barrier is credible	NA																																
B.5.18. Is the proposed project type be justified as first-of-its kind?	EB 63 Annex 11	/PDD/	/DR/	The proposed project activity is a small scale project activity and hence same is not applicable.	OK																												
B.5.19. Is the project activity not common practice, unless proposed as first of its kind?	Para 128 of VVS EB 63 Annex 12	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The common practice has been demonstrated as per approved methodology(ies) and applicable tool(s)</td><td>NA</td></tr><tr><td>The latest guidance on demonstration of common practice is applied including all steps</td><td>NA</td></tr><tr><td>The applicable geographical area is defined appropriately taking note of the country specific or not technology</td><td>NA</td></tr><tr><td>The compliance of Step 4a is confirmed</td><td>NA</td></tr><tr><td>The compliance of Step 4b is confirmed</td><td>NA</td></tr><tr><td>It is confirmed that Nall – Ndiff is not greater than 3</td><td>NA</td></tr><tr><td>It is confirmed that F is not greater than 0.2</td><td>NA</td></tr><tr><td>The value of Nall – Nidff is greater than 3 and the value of F is greater than 0.2</td><td>NA</td></tr><tr><td>The identification of Nall is based on objective evidences and does not include CDM registered and undergoing validation projects</td><td>NA</td></tr><tr><td>The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated</td><td>NA</td></tr><tr><td>The list of activities considered under Nall and Ndiff is complete and verifiable</td><td>NA</td></tr><tr><td>The assessment and result of common practice analysis are confirmed by local and sectoral expertise</td><td>NA</td></tr><tr><td>It is confirmed that project activity is not a common practice and therefore additional</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	The common practice has been demonstrated as per approved methodology(ies) and applicable tool(s)	NA	The latest guidance on demonstration of common practice is applied including all steps	NA	The applicable geographical area is defined appropriately taking note of the country specific or not technology	NA	The compliance of Step 4a is confirmed	NA	The compliance of Step 4b is confirmed	NA	It is confirmed that Nall – Ndiff is not greater than 3	NA	It is confirmed that F is not greater than 0.2	NA	The value of Nall – Nidff is greater than 3 and the value of F is greater than 0.2	NA	The identification of Nall is based on objective evidences and does not include CDM registered and undergoing validation projects	NA	The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated	NA	The list of activities considered under Nall and Ndiff is complete and verifiable	NA	The assessment and result of common practice analysis are confirmed by local and sectoral expertise	NA	It is confirmed that project activity is not a common practice and therefore additional	NA	OK
Validation Criteria	Yes/No																																
The common practice has been demonstrated as per approved methodology(ies) and applicable tool(s)	NA																																
The latest guidance on demonstration of common practice is applied including all steps	NA																																
The applicable geographical area is defined appropriately taking note of the country specific or not technology	NA																																
The compliance of Step 4a is confirmed	NA																																
The compliance of Step 4b is confirmed	NA																																
It is confirmed that Nall – Ndiff is not greater than 3	NA																																
It is confirmed that F is not greater than 0.2	NA																																
The value of Nall – Nidff is greater than 3 and the value of F is greater than 0.2	NA																																
The identification of Nall is based on objective evidences and does not include CDM registered and undergoing validation projects	NA																																
The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated	NA																																
The list of activities considered under Nall and Ndiff is complete and verifiable	NA																																
The assessment and result of common practice analysis are confirmed by local and sectoral expertise	NA																																
It is confirmed that project activity is not a common practice and therefore additional	NA																																



				The proposed project activity is a small scale project activity and hence same is not applicable.													
B.5.20. Is it confirmed that the proposed SSC project activity is additional in accordance with CDM requirements?	Para 158 of VVS	/PDD/	/DR/	<table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11</td><td>N</td></tr><tr><td>The type of additionality approach is clearly included in the PDD</td><td>N</td></tr><tr><td>The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities</td><td>N</td></tr><tr><td>In case of microscale project activities, it is confirmed that PDD complies with the requirements of “Guidelines for demonstrating additionality of microscale project activities”</td><td>NA</td></tr><tr><td>The additionality has been demonstrated in case of microscale projects as per para 160 of VVS and referenced guidance</td><td>NA</td></tr></table> <p>The conclusion on the additionality can be arrived at only on closure of the CAR#07 , CAR#08 &amp;CL#01.</p>	Validation Criteria	Yes/No	The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11	N	The type of additionality approach is clearly included in the PDD	N	The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities	N	In case of microscale project activities, it is confirmed that PDD complies with the requirements of “Guidelines for demonstrating additionality of microscale project activities”	NA	The additionality has been demonstrated in case of microscale projects as per para 160 of VVS and referenced guidance	NA	CL#01 CAR#07 CAR#08  OK
Validation Criteria	Yes/No																
The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11	N																
The type of additionality approach is clearly included in the PDD	N																
The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities	N																
In case of microscale project activities, it is confirmed that PDD complies with the requirements of “Guidelines for demonstrating additionality of microscale project activities”	NA																
The additionality has been demonstrated in case of microscale projects as per para 160 of VVS and referenced guidance	NA																
B.6. Emission reductions																	



B.6.1.Are the steps and equations (Explanation of methodological choices) applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 96 of VVS Section B.6.1 of PDD	/PDD/	/DR/	<table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>The methods or methodological steps in the selected methodology(ies), for calculating baseline emissions are explained and justified in the PDD</td><td>No</td></tr><tr><td>The methods or methodological steps in the selected methodology(ies), for calculating project emissions are explained and justified in the PDD</td><td>Yes</td></tr><tr><td>The methods or methodological steps in the selected methodology(ies), for calculating leakages are explained and justified in the PDD</td><td>Yes</td></tr><tr><td>The equations that will be used in calculating emission reductions are included in the PDD</td><td>Yes</td></tr><tr><td>The methodological choices are explained and justified where methodology prescribes the baseline scenarios</td><td>Yes</td></tr><tr><td>The methodological choices are explained and justified where methodology provides different options</td><td>NA</td></tr><tr><td>The methodological choices are explained and justified where methodology allows different default values</td><td>NA</td></tr><tr><td>The referred tools by the methodology are applied, explained and choices justified, as appropriate</td><td>Yes</td></tr></table> <p>CAR#07 is raised as the PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.</p>	Validation Criteria	Yes/No	The methods or methodological steps in the selected methodology(ies), for calculating baseline emissions are explained and justified in the PDD	No	The methods or methodological steps in the selected methodology(ies), for calculating project emissions are explained and justified in the PDD	Yes	The methods or methodological steps in the selected methodology(ies), for calculating leakages are explained and justified in the PDD	Yes	The equations that will be used in calculating emission reductions are included in the PDD	Yes	The methodological choices are explained and justified where methodology prescribes the baseline scenarios	Yes	The methodological choices are explained and justified where methodology provides different options	NA	The methodological choices are explained and justified where methodology allows different default values	NA	The referred tools by the methodology are applied, explained and choices justified, as appropriate	Yes	CAR#07  OK
Validation Criteria	Yes/No																						
The methods or methodological steps in the selected methodology(ies), for calculating baseline emissions are explained and justified in the PDD	No																						
The methods or methodological steps in the selected methodology(ies), for calculating project emissions are explained and justified in the PDD	Yes																						
The methods or methodological steps in the selected methodology(ies), for calculating leakages are explained and justified in the PDD	Yes																						
The equations that will be used in calculating emission reductions are included in the PDD	Yes																						
The methodological choices are explained and justified where methodology prescribes the baseline scenarios	Yes																						
The methodological choices are explained and justified where methodology provides different options	NA																						
The methodological choices are explained and justified where methodology allows different default values	NA																						
The referred tools by the methodology are applied, explained and choices justified, as appropriate	Yes																						



B.6.2. Are the data and parameters fixed ex ante applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 97, 98 of VVS Section B.6.2 of PDD	/PDD/	/DR/	Validation Criteria	Yes/No	CAR#07  OK
				The data and parameters defined ex ante are complete in the context of the project activity	Yes	
				The data that are calculated using equations provided in the methodology are not included in this section of PDD	Yes	
				The table for each data and parameter is correctly filled as required by the guidance to fill PDD	Yes	
				The values applied (single or multiple) of each data is included in a single table, as appropriate	Yes	
				The choice of data applied is clearly indicated and justified with reference to the source	No	
				The applied value of the data and parameters, as required in some cases e.g. PLF, is as per the applicable guidance issued by CDM EB	No	
				If the data is determined based on measurements methods and procedures, if applicable, the reference to standards used, responsible person/entity that took the measurement, date of measurement and measured results are correctly indicated.	Yes	
				The purpose of data is clearly indicated in the table	Yes	
				If sampling is allowed by the methodology, it is confirmed that the application is as per the latest version of "Standard for sampling and surveys for CDM PA and PoA", as appropriate	NA	
				The additional information is included in Appendix 4 of PDD	Yes	
				The assumptions and sources used are appropriate, correct and would result in either accurate or otherwise conservative estimate of emission reductions	Yes	
				CAR#07 is raised as the PDD refers to "Tool for the demonstration and assessment of additionality"(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system"(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.		



B.6.3.Are the steps and equations applied to calculate ex ante calculation of emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 97, 98 of VVS Section B.6.3 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	OK	CAR#07
				The ex ante calculation of emission reductions (BE, PE and LE) is performed transparently in the PDD		No		
				The values applied are consistent with section B.6.2 and B.7.1 for each specific data and/or parameter		No		
				The equations in the applied methodology(ies) and referred tools, as appropriate are correctly applied in reproducible manner in section B.6.3 as sample calculation		No		
				The ex ante calculations are explained in reproducible manner in Appendix 4 and/or electronics spreadsheet		No		
				CAR#07 is raised as the PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.				
B.6.4. Is the table to indicate the emission reductions over the crediting period included and correct?	Section B.6.4 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	OK	
				The table is completely and correctly filled		Yes		
				The emission reductions (BE, PE, LE) are consistent with the other places in the PDD (B.6.3, Appendix 4 etc.)		Yes		
				The information in this section is consistent with other sections (e.g. crediting period etc.)		Yes		
				Yes. The values of emission reductions provided in table under section B.6.4 of the PDD are correct and in line with guidelines for completing the PDD				





B.6.5. Are all the steps taken and equations applied to calculate project emissions, baseline emissions and leakage and emission reductions correct and appropriate?		Para 99 of VVS	/PDD/	/DR/	<table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>All assumptions and data used by the project participants are listed in the PDD, including their references and sources</td><td>No</td></tr><tr><td>All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD</td><td>No</td></tr><tr><td>All values used in the PDD are considered reasonable in the context of the proposed CDM project activity</td><td>No</td></tr><tr><td>The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions</td><td>No</td></tr><tr><td>All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD</td><td>No</td></tr><tr><td>The spreadsheet provided is transparent, unprotected and reproducible</td><td>No</td></tr></table> <p>CL#01 is raised as PP needs to provide all the supporting documents for WTG#01 &amp; WTG#02</p> <p>CAR#07 is raised as the PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.</p>	Validation Criteria	Yes/No	All assumptions and data used by the project participants are listed in the PDD, including their references and sources	No	All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD	No	All values used in the PDD are considered reasonable in the context of the proposed CDM project activity	No	The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions	No	All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD	No	The spreadsheet provided is transparent, unprotected and reproducible	No	GL#01- CAR#07  OK
Validation Criteria	Yes/No																			
All assumptions and data used by the project participants are listed in the PDD, including their references and sources	No																			
All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD	No																			
All values used in the PDD are considered reasonable in the context of the proposed CDM project activity	No																			
The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions	No																			
All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD	No																			
The spreadsheet provided is transparent, unprotected and reproducible	No																			
B.7. Monitoring plan																				
B.7.1.1. Does the monitoring plan of the PDD comply with the approved methodology(ies)and applicable tool(s)?		Para 132(a) of VVS	/PDD/	/DR/	<table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>The list of parameters included in the section B.7.1 of the PDD is complete in the context of the project activity with respect to the applied methodology(ies) and applicable tool(s)</td><td>Y</td></tr><tr><td>The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)</td><td>Y</td></tr><tr><td>The table is filled correctly and completely for each parameter to be monitored specifying source and applied value</td><td>N</td></tr><tr><td>The table specifies the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of</td><td>Y</td></tr></table>	Validation Criteria	Yes/No	The list of parameters included in the section B.7.1 of the PDD is complete in the context of the project activity with respect to the applied methodology(ies) and applicable tool(s)	Y	The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)	Y	The table is filled correctly and completely for each parameter to be monitored specifying source and applied value	N	The table specifies the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of	Y	CAR#09  OK				
Validation Criteria	Yes/No																			
The list of parameters included in the section B.7.1 of the PDD is complete in the context of the project activity with respect to the applied methodology(ies) and applicable tool(s)	Y																			
The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)	Y																			
The table is filled correctly and completely for each parameter to be monitored specifying source and applied value	N																			
The table specifies the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of	Y																			



				<table><tr><td>periodic measurements, the measurement intervals</td><td></td></tr><tr><td>The QA/QC procedures (calibration procedures and frequency) and purpose of data as required by the approved methodology(ies) and applicable tool(s) are correctly indicated</td><td>Y</td></tr><tr><td>The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet</td><td>N</td></tr></table>	periodic measurements, the measurement intervals		The QA/QC procedures (calibration procedures and frequency) and purpose of data as required by the approved methodology(ies) and applicable tool(s) are correctly indicated	Y	The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet	N			
periodic measurements, the measurement intervals													
The QA/QC procedures (calibration procedures and frequency) and purpose of data as required by the approved methodology(ies) and applicable tool(s) are correctly indicated	Y												
The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet	N												
B.7.1.2. Is the description of the monitoring plan (implementation) feasible in the context of the project activity?	Para 132(b) of VVS	/PDD/	/DR/	<p>CAR#09 is raised to clarify –</p> <p>The PDD is not transparent on the apportioning procedures to be adopted in the project activity in arriving at the EG<sub>y</sub> if any and if the billing/JMR cycle is not matching with monitoring period.</p> <p>Accuracy class of the meters mentioned in section B.7.1 of the PDD is 0.5s however during the site visit it was found that the accuracy class of the meters are 0.2s. PP to provide justification for the same.</p> <p>PP needs to elaborate the detail about the data storage and archiving policy in section B.7.1.</p> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The monitoring plan described in the PDD is feasible within the project design</td><td>Yes</td></tr><tr><td>The information in the monitoring plan, in this regard, is confirmed based on the documented procedures, interview, project plan and physical inspection during site visit, as appropriate</td><td>No</td></tr><tr><td>The QA/QC procedures as included in the PDD are sufficient to determine the ex post emission reductions and be verified</td><td>Yes</td></tr></table> <p>Kindly refer to section B.7.1 above</p>	Validation Criteria	Yes/No	The monitoring plan described in the PDD is feasible within the project design	Yes	The information in the monitoring plan, in this regard, is confirmed based on the documented procedures, interview, project plan and physical inspection during site visit, as appropriate	No	The QA/QC procedures as included in the PDD are sufficient to determine the ex post emission reductions and be verified	Yes	<del>CAR-09</del> OK
Validation Criteria	Yes/No												
The monitoring plan described in the PDD is feasible within the project design	Yes												
The information in the monitoring plan, in this regard, is confirmed based on the documented procedures, interview, project plan and physical inspection during site visit, as appropriate	No												
The QA/QC procedures as included in the PDD are sufficient to determine the ex post emission reductions and be verified	Yes												



B.7.2 Is there any sampling approach applied for any parameter to be monitored?	Section B.7.2 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	OK
				The sampling approach is applied for some monitored parameters		NA	
				The sampling approach is allowed by the applied methodology(ies) or applicable tool(s)		NA	
				The sampling is clearly defined in Section B.7.2 of the PDD		NA	
				The sampling approach confirms to “Standard for sampling and surveys for CDM project activities and programme of activities”		NA	
				The sampling is not applicable for monitoring of net electricity exported to the grid from proposed project activity. Hence, no sampling approach is applied in PDD.			
B.7.3. Are the other elements of the monitoring plan completely defined?	Para 56 of PS Section B.7.3 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#09  OK
				The operational and management structure (authority and responsibility for registration, monitoring, measurement and reporting) to be put in place to implement the monitoring plan is included		Yes	
				The provisions included in PDD to ensure that data monitored required for verification and issuance be kept and archived electronically for 2 years after the end of crediting period or the last issuance of CERs, whichever occur later		No	
				The definitions of responsibilities and institutional arrangements for data collection and archiving included in the PDD		Yes	
				QA/QC procedures are defined clearly		Yes	
				The uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables are included.		Yes	
				The information in this regard is consistent with the other sections of the PDD viz., Appendix 5		Yes	
				The project participant will be able to implement the described monitoring plan		Yes	
				Refer Section B.7.1 above.			



B 7.4 Are there any parameters that are monitored which are used to calculate other parameters or parameters required by methodology (such as net electricity supplied)?	Para 55, 56 of PS Section B.7.3 of PDD	/PDD/	/DR/	PP has included net electricity supplied, total electricity exported and total electricity imported from grid in B 7.1 which are as per monitoring being carried out at site.	OK
B 7.5 Is it ensured that all parameters used to calculate emission reductions are either fixed-ante or monitored?	Para 55, 56 of PS Section B.7.3 of PDD	/PDD/	/DR/	The grid emission factor is fixed en-ante. PP has included net electricity supplied, total electricity exported and total electricity imported from grid in B 7.1 which are as per monitoring being carried out at site. Thus all parameters are either fixed ax-ante or monitored.	OK
B 7.6 Is there is any additional information presented in section B 7 of PDD on monitoring?	Section B.7.3 of PDD	/PDD/	/DR/	There is no additional information presented in section B .7 on monitoring plan.	OK
B 7.7 Whether the parameters in the monitoring plan are consistent with line diagrams available in different sections (such as section B 7.3) of the PDD?.	Section B 7.1, B.7.3 of PDD	/PDD/	/DR/	Monitoring parameters are in line with the line diagram presented in section B7.3	OK
B 7.8 Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate? Are the requirements for calibration of measurement equipment described and deemed appropriate?	Section B 7.1, B.7.3 of PDD	/PDD/	/DR/	Yes measurement equipment are described. Electricity exported to grid and imported from grid is measured at meter located at WTG.	OK



B 7.9 Is the monitoring and recording frequency adequate for all monitoring parameters? Is it in line with the monitoring methodology?		Section B 7.1, B.7.3 of PDD	/PDD/	/DR/	Electricity exported to grid will be recorded monthly.			OK		
SECTION C. Duration and crediting period										
C.1.1. Is the start date of the project activity and operational lifetime clearly defined and reasonable?		Para 57, 58 of PS C.1 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#04-OK		
					The start date of project activity is correctly included in the PDD in DD/MM/YYYY format		Yes			
					The evidence to support start date of project activity is included in the PDD		No			
					The start date of project activity is as per the glossary of CDM and confirms the observations made during site visit		No			
					The operational lifetime of the project activity is correctly included in the PDD		No			
					The operational lifetime is in accordance with EB50 Annex15 or from other sources as appropriate.		No			
					PP needs to provide the supporting evidence for the operational lifetime and the start date of the project activity.					
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?		C.2 of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#04-OK		
					The type of crediting period is correctly included in the PDD		Yes			
					The start date of crediting period is correctly included in the PDD in DD/MM/YYYY format based on expected commissioning of the project activity but is not earlier than the expected date of registration		No			
					The length of crediting period is correctly included in PDD as per the type of credit period chosen		Yes			
					The start date of crediting period provided in section C.2.2 of PDD is not in line with the para 60 of PS.					
SECTION D. Environmental impacts										



D.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?		D.1 of PDD Para 63 of PS	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>An analysis of environmental impacts of the project activity carried out by project participant(s)</td><td>Yes</td></tr><tr><td>Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable</td><td>Yes</td></tr><tr><td>The reference is given to the related documentation in PDD</td><td>Yes</td></tr></table> <p>As per para 63 of PS, PP is requested to provide an analysis of the environmental impacts of the proposed CDM project activity.</p>		Validation Criteria	Yes/No	An analysis of environmental impacts of the project activity carried out by project participant(s)	Yes	Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable	Yes	The reference is given to the related documentation in PDD	Yes	CAR#13 OK				
Validation Criteria	Yes/No																		
An analysis of environmental impacts of the project activity carried out by project participant(s)	Yes																		
Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable	Yes																		
The reference is given to the related documentation in PDD	Yes																		
D.1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA)?		D.2 of PDD Para 64 of PS Para 134, 135 of VVS	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The environmental impacts are considered significant</td><td>NA</td></tr><tr><td>If environmental impacts are considered significant by PP or host Party, has an EIA been conducted</td><td>NA</td></tr><tr><td>Is there any host Party requirements for EIA for project activity</td><td>NA</td></tr><tr><td>Is the EIA conducted in accordance with such procedures</td><td>NA</td></tr><tr><td>The reference is given to the related documentation in PDD</td><td>NA</td></tr></table> <p>The host country regulations do not require an Environmental Impact Assessment (EIA) for the small hydro projects having capacity less than 25 MW. The project activity does not fall under the purview of Environmental Impact Assessment (EIA) as per EIA Notification of Ministry of Environment and Forests (MoEF), Government of India (GoI) dated 14/09/2006.</p>		Validation Criteria	Yes/No	The environmental impacts are considered significant	NA	If environmental impacts are considered significant by PP or host Party, has an EIA been conducted	NA	Is there any host Party requirements for EIA for project activity	NA	Is the EIA conducted in accordance with such procedures	NA	The reference is given to the related documentation in PDD	NA	OK
Validation Criteria	Yes/No																		
The environmental impacts are considered significant	NA																		
If environmental impacts are considered significant by PP or host Party, has an EIA been conducted	NA																		
Is there any host Party requirements for EIA for project activity	NA																		
Is the EIA conducted in accordance with such procedures	NA																		
The reference is given to the related documentation in PDD	NA																		
SECTION E. Local stakeholder consultation																			
E.1.1. Have local stakeholders been invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC web		Para 69 of PS	/PDD/	/DR/	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholder consultation process is done prior to webhosting of the PDD for GSP</td><td>No</td></tr></table> <p>Section E.1 of the PDD states “distributing pamphlets and organizing meetings and seeking public inputs relating to the project activity”. However the PDD is not transparent on how many pamphlets have been distributed and how are they distributed. It is also not transparent on how are they distributed. The PDD is also not transparent on when did the stakeholder meeting have been conducted and how many of the stakeholders have attended the meeting. Further the PDD is also not transparent on identification of the relevant stakeholders</p>		Validation Criteria	Yes/No	The local stakeholder consultation process is done prior to webhosting of the PDD for GSP	No	CAR#05 OK								
Validation Criteria	Yes/No																		
The local stakeholder consultation process is done prior to webhosting of the PDD for GSP	No																		





E.1.2. Have appropriate media been used to invite comments by local stakeholders?		Para 65, 66 of PS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#05 OK
					The local stakeholders were identified appropriately		No	
					The local stakeholders were invited in reasonable time		No	
					The local stakeholders were invited using appropriate medium		No	
					Refer section E.1.1 above.			
E.1.3. Is the undertaken stakeholder process described in a complete and transparent manner?		Para 67, 68 of PS 139 of VVS	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#05 OK
					The local stakeholders were informed appropriately about the project activity to comment		No	
					Summary of comments as included in the PDD is complete		No	
					Refer section E.1.1 above.			
E.1.4. Has due account been taken of any stakeholder comments received?		Para 139, 140 of VVS E of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	CAR#05 OK
					The comments received from local stakeholders have been considered for due account		No	
					The due account taken of all comments is adequate		No	
					The information contained in PDD with regard to local stakeholder consultation is adequate.		No	
SECTION F. Approval and authorization								
F.1.1 Has the approval and authorization is indicated correctly?		Para 70, 71 of PS F of PDD	/PDD/	/DR/	Validation Criteria		Yes/No	OK
					The letter of approval at GSP of PDD is available		Yes	
					The information in this regard is included in the PDD		Yes	
					The letter of approval(s) at Request for Registration is available from all identified Parties in the PDD		NA	

**Table 3 - Resolution of Corrective Action Requests and Clarification:**

Summary of Findings	CAR	CL	FAR
	13	02	NA

Date:	21/02/2013	Raised by:	Dr. Shilpy Gupta & Mr. Manoj Srivastava	
Type of Finding	CL	S. No. of Finding	1	Reference VVS
Details of the Finding:		21/02/2013		
PP is requested to provide the following documents-				
<b>WTG -1 (1.5 MW for Vershmedi)</b> <ul style="list-style-type: none"><li>GEDA; permission for setting 1.50 MW Vershmedi</li><li>Purchase Order for tabular tower for 1.5 MW</li><li>Purchase Order of transformer component of renewable energy</li><li>GETCO: Execution of agreement</li><li>Purchase Order of Acquiring freehold/lease</li><li>Work order for civil work</li><li>Work order for electrical works</li><li>Work order for erection, Installation</li><li>Office of the chief electrical inspector</li><li>O&amp; M with part consumable</li><li>Amendment in Purchase order</li><li>Insurance copy of WTG 1 &amp; 2 and supporting document for insurance</li></ul>				
<b>WTG -2 (1.5 MW Porbunder)</b> <ul style="list-style-type: none"><li>Email copy of : termination of contract</li><li>Link of old PDD bundle</li><li>Change in chronology</li><li>Prior Consideration Email copy</li><li>Lease deed copy</li><li>Freehold lease document</li><li>Work order for civil work</li></ul>				



8. Work order for electrical works
9. Work order for erection, Installation
10. Purchase Order for tabular tower for 1.5 MW
11. Purchase Order of transformer component of renewable energy
12. GETCO: Execution of agreement
13. Declaration for No ODA
14. Declaration for debundling of WTGs
15. PP to provide the supporting document for the technical lifetime of the project activity.
16. The PP is requested to provide the details of other CDM projects are being developed by Bhagwati Spherocast Pvt. Ltd and the CDM projects submitted for request for registration

**Project Participant Response**

19/03/2013

Please find the reference document number & its location on the folder WTG-1(sent to you through Drop box)

**WTG-1**

	Document Required	Location with Reference Number
1.	GEDA; permission for setting 1.50 MW Vershamedi	1. GEDA; permission for setting 1.50 MW Vershamedi
2.	Purchase Order for tabular tower for 1.5 MW	2. Purchase order for Tubular Tower
3.	Purchase Order of transformer component of renewable energy	3. Purchase Order of transformer
4.	GETCO: Execution of agreement	4. GETCO: Execution of agreement
5.	Purchase Order of Acquiring freehold/lease	5. B PO for Acquiring Freehold Land
6.	Work order for civil work	6. WO_ civil work
7.	Work order for electrical works	7. WO _electrical works
8.	Work order for erection, Installation	8. WO _erection & Commissioning
9.	Office of the chief electrical inspector	9. Initial Inspection of transformer
10.	O & M with part consumable	13.A .Operation 13 B. O & M with part consumable
11.	Amendment in Purchase order Transformer Civil Work Electrical Work Erection & Commissioning	3.B Set of Transformer in Folder WTG-2 Folder of Drop box account 6.B Civil Work in Folder WTG-2 Folder of Dropbox account 7. B. Electrical Work in Folder WTG-2 Folder of Dropbox account 8.B Erection & Installation in Folder WTG-2 Folder of Dropbox account
12.	Insurance copy of WTG 1 & 2 and supporting document for insurance	10. For WTG – 1 :A 10.B,10.C for years (2010-11,2011-12,.2012-13) For WTG -2: 10. A, & 10.B in Folder WTG-2 in dropbox account



Please find the reference document number & its location (sent to you through Drop box)

	Document Required	Location with Reference Number
1.	Email copy of : termination of contract	Please find the document as Email Copy of Prior Consideration in folder “other documents” in dropbox account
2.	Link of old PDD bundle	<a href="http://cdm.unfccc.int/filestorage/U/O/P/UOPHA14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=b0h8bWphbHRkfDBhcliONTf4PEgsMeEli3eF">http://cdm.unfccc.int/filestorage/U/O/P/UOPHA14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=b0h8bWphbHRkfDBhcliONTf4PEgsMeEli3eF</a>
3.	Change in chronology	The chronology has been mentioned in the section B.5 has been modified and referred as Chronology-Project Implementation on Page number 15
	Prior Consideration Email copy	Please find the document in folder other document E mail copy for Prior Consideration
4.	Lease deed copy	5.A Lease deed copy in WTG 2 Folder
5.	Freehold lease document	5.B Freehold lease document in WTG 2 Folder
6.	Work order for civil work	6.A Work order for civil work
7.	Work order for electrical works	7.A WO_ electrical works
8.	Work order for erection, Installation	8. A WO_ erection, Installation
9.	Purchase Order for tabular tower for 1.5 MW	2. Purchase Order for tabular tower for 1. 5 MW
10.	Purchase Order of transformer component of renewable energy	3.A Purchase Order of transformer
11.	GETCO: Execution of agreement	4. GETCO: Execution of agreement
12.	Declaration for No ODA	Declaration for No ODA in folder “other document”
13.	Declaration for de bundling of WTGs	Declaration of Debundling in folder “other document”
14.	PP to provide the supporting document for the technical lifetime of the project activity.	Please find the document for technical lifetime of project activity in folder “other document” in dropbox
15.	The PP is requested to provide the details of other CDM projects are being developed by Bhagwati Spherocast Pvt. Ltd and the CDM projects submitted for request for registration	No, there is no other CDM project being developed by project proponent. Considering the environment benefit of the company, the project proponent decided to generate electricity through renewable sources and installed the first wind energy generator of 1.5 MW capacity at Maliya Miyana, Rajkot in 2009 and other wind energy generator of 1.5 MW in 2011 capacity at Adodar ,Porbandar in Gujarat



Documents/ information provided by the Project Participant:			
As mentioned above			
Reasoning for acceptance or non-acceptance:			29/03/2013
S. No	Document Required	Location with Reference Number (Provided by PP)	Assessment by the Validation Team (WTG -1)
1.	GEDA; permission for setting 1.50 MW Vershamedi	11. GEDA; permission for setting 1.50 MW Vershamedi	Permission for WTG-1 by GEDA (Gujarat Energy Development Agency) GEDA dated 04/09/2009 with reference Number GEDA/PWF/SGWPL-BSPL/Maliya/09-10/2773 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
2.	Purchase Order for tabular tower for 1.5 MW	12. Purchase order for Tubular Tower	Purchase order for Tubular Tower dated 16/07/2009 with reference Number Bhagwati/WM/09-10/02 is verified by the Assessment team and found acceptable. Thus, this point of the CL is closed.
3.	Purchase Order of transformer component of renewable energy	13. Purchase Order of transformer	Purchase order for sets of transformer with reference Number Bhagwati/WM/09-10/05 dated 16/07/2009 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
4.	GETCO: Execution of agreement	14. GETCO: Execution of agreement	GETCO execution of an agreement dated 05/12/2009 with reference Number ACE(RC)/EE-C/3722 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
5.	Purchase Order of Acquiring freehold/lease	15. B PO for Acquiring Freehold Land	Purchase order for acquiring freehold Land dated 16/07/2009 with reference Number (Bhagwati/WM/09-10/04) is verified by the Assessment Team and found acceptable it is also cross verified with the Land lease deed signed dated 20/08/2009 at Morvi between Sri Hirpara Nitesh Vasantbhai authorized signatory Sarjan Realities Limited and Mr. Jitendra mankad authorized signatory from Bhagwati Spherocast Private Limited. Thus, this point of the CL is closed.
6.	Work order for civil work	16. WO_ civil work	Work order for Civil Works dated 16/07/2009 with reference number Bhagwati/WM/09-10/07 by Suzlon infrastructure Services Limited is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
7.	Work order for electrical works	17. WO _electrical works	Work order for electrical work dated 16/07/2009 reference number Bhagwati/WM/09-10/07 from Suzlon infrastructure Services Limited is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
8.	Work order for erection, Installation	18. WO _erection & Commissioning	Work order erection and commissioning dated 16/07/2009 with reference number Bhagwati/WM/09-10/03 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
9.	Office of the chief electrical inspector	19. Initial Inspection of transformer	Initial Inspection of transformer dated 25/09/2009 with reference CEI/T-1/P-1/WTG/17 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
10.	O & M with part	13.A .Operation	O&M agreement dated 26/02/2010 between Bhagwati Spherocast Private Limited and Suzlon



	consumable	13 B. O & M with part consumable	<p>Infrastructure Services Limited is verified by the Assessment team and found acceptable.</p> <p>Maintenance agreement signed dated 26/02/2010 between Bhagwati Spherocast Private Limited and Suzlon infrastructure Services Limited is verified by the Assessment team and found acceptable. Thus, this point of the CL is closed.</p>
11.	Amendment in Purchase order Transformer Civil Work Electrical Work Erection & Commissioning	<p>3.B Set of Transformer in Folder WTG-2 Folder of Drop box account</p> <p>6.B Civil Work in Folder WTG-2 Folder of Dropbox account 7. B. Electrical Work in Folder WTG-2 Folder of Dropbox account 8.B Erection &amp; Installation in Folder WTG-2 Folder of Dropbox account</p>	<p>There is no amendment in PO for WTG-1.</p> <p>Amendment in Erection dated 12/10/2010 with reference Number BSPL/WF/10-11/06 for WTG -2 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.</p>
12.	Insurance copy of WTG 1 & 2 and supporting document for insurance	<p>20. For WTG – 1 :A 10.B,10.C for years (2010-11,2011-12,2012-13) For WTG -2: 10. A, &amp; 10.B in Folder WTG-2 in dropbox account</p>	<p>Insurance of WTG-1 with policy Number 060700/46/10/39/00000124 for the period from 30/09/2010 to 29/09/2011 by United India Insurance Company Limited is verified by the Assessment Team and found Acceptable.</p> <p>Insurance for WTG-1 with policy number 060700/11/11/11/00000096 from 01/05/2011 to 30/04/2012 by United India insurance Company Limited is verified by the Assessment Team and found Acceptable.</p> <p>Insurance of WTG-1 with Policy Number 060700/11/12/11/00000075 from 01/05/2012 to 30/04/2013 from united insurance Company Limited is verified by the Assessment Team and found Acceptable. Thus, this point of the CL is closed.</p> <p>Insurance of WTG-2 with policy Number 060700/11/11/11/00000093 from 01/05/2011 to 30/04/2012 by United India Insurance Company Limited is verified by the Assessment Team and found Acceptable.</p> <p>Insurance of WTG-2 with Policy No 060700/11/12/11/00000074 from 01/05/2012 to 30/04/2013 by United India Insurance Company Limited is verified by the Assessment Team and found Acceptable. Thus, this point of the CL is closed.</p>





	Document Required	Location with Reference Number	Assessment by the Validation Team
1.	Email copy of : termination of contract	Please find the document as Email Copy of Prior Consideration in folder "other documents" in dropbox account	Email copy send from Bhagwati Spherocast Private Limited for the Termination of contract signed with Agrinergy is verified by the Assessment Team. Thus, this point of the CL is closed.
2.	Link of old PDD bundle	<a href="https://cdm.unfccc.int/filestorage/U/O/P/UOPH A14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=SmZ8bjExYm x3fDBvwYY4tlbTabvZsmW8gA26">https://cdm.unfccc.int/filestorage/U/O/P/UOPH A14CGRD8X7MQFJB09TNYZ6EW2I/PDD_Captive_Agrinergy_27Apr11.pdf?t=SmZ8bjExYm x3fDBvwYY4tlbTabvZsmW8gA26</a>	From the given web link it is clear that the the old project was webhosted only. It was not registered.
3.	Change in chronology	The chronology has been mentioned in the section B.5 has been modified and referred as Chronology-Project Implementation on Page number 15	Chronology of the project activity is mentioned in Section B.5 of the PDD. The chronology has been checked and found to be correct. Thus, this point of the CL is closed.
4	Prior Consideration Email copy	Please find the document in folder other document E mail copy for Prior Consideration	PP has given the intimation to UNFCCC however copy of intimation to NCDMA for WTG1 is not given. PP to justify.
4.	Lease deed copy	5.A Lease deed copy in WTG 2 Folder	Land lease deed signed dated 20/08/2009 at Morvi between Sri Hirpara Nitesh Vasantbhai authorized signatory Sarjan Realities Limited and Mr. Jitendra mankad authorized signatory from Bhagwati Spherocast Private Limited is verified by the Asseessment Team and found acceptable. Thus, this point of the CL is closed.
5.	Freehold lease document	5.B Freehold lease document in WTG 2 Folder	Land Leese deed made at Porbandar dated 24/11/2010 signed between Suzlon Gujarat Wind Park Limited and Bhagwati Spherocast Private Limited is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
6.	Work order for civil work	6.A Work order for civil work	Work order for Civil Works dated 16/07/2009 with reference number Bhagwati/WM/09-10/07 by Suzlon infrastructure Services Limited is verified by the Assessment Team and found acceptable.  Work order for Civil work reference number 2010-11/1.5MW dated 12/08/2010



			is verified by the Assessment Team and found acceptable.  Amendment in Civil Work dated 12/10/2010 with reference number BSPL/WF/10-11/04 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
7.	Work order for electrical works	7.A WO_ electrical works	Work order for electrical work dated 16/07/2009 reference number Bhagwati/WM/09-10/07 from Suzlon infrastructure Services Limited is verified by the Assessment Team and found acceptable.  Work order for electrical work dated 12/08/2010 with reference number BSPL/WF/10-11/05 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
8.	Work order for erection, Installation	8. A WO_ erection, Installation	Work order erection and commissioning dated 16/07/2009 with reference number Bhagwati/WM/09-10/03 is verified by the Assessment Team and found acceptable.  Work order erection with reference number 2010-11/1.5MW WTG dated 12/08/2010 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
9.	Purchase Order for tabular tower for 1.5 MW	2. Purchase Order for tabular tower for 1. 5 MW	Purchase order for Tubular Tower dated 16/07/2009 with reference Number Bhagwati/WM/09-10/02 is verified by the Assessment Team and found acceptable.  Purchase order for tubular tower dated 12/08/2010 with reference Number 2010-11/1.5MW WTG is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
10	Purchase Order of transformer component of renewable energy	3.A Purchase Order of transformer	Purchase order for sets of transformer with reference Number Bhagwati/WM/09-10/05 dated 16/07/2009 is verified by the Assessment Team and found acceptable.  Purchase order for set of transformers with reference No 2010-11/1.5MW WTG dated 12/08/2010 is verified by the Assessment Team and found acceptable.



			Thus, this point of the CL is closed.
11	GETCO: Execution of agreement	4. GETCO: Execution of agreement	GETCO execution of an agreement dated 05/12/2009 with reference Number ACE(RC)/EE-C/3722 is verified by the Assessment Team and found acceptable.  GETCO execution of an agreement with reference Number CE(RC)/EE-C/DE-1 dated 27/12/2010 is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
12	Declaration for No ODA	Declaration for No ODA in folder "other document"	PP has provided declaration for No public Funding /No-ODA. Hence it is closed. Thus, this point of the CL is closed.
13	Declaration for de bundling of WTGs	Declaration of Debundling in folder "other document"	There is no date mentioned in declaration for debundling of the project activity. Thus, this point of the CL is open.
14	PP to provide the supporting document for the technical lifetime of the project activity.	Please find the document for technical lifetime of project activity in folder "other document" in dropbox	Technical lifetime of the project activity dated 05/03/2013 provided by Suzlon Energy Limited is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.
15	The PP is requested to provide the details of other CDM projects are being developed by Bhagwati Spherocast Pvt. Ltd and the CDM projects submitted for request for registration	No, there is no other CDM project being developed by project proponent. Considering the environment benefit of the company, the project proponent decided to generate electricity through renewable sources and installed the first wind energy generator of 1.5 MW capacity at Maliya Miyana, Rajkot in 2009 and other wind energy generator of 1.5 MW in 2011 capacity at Adodar ,Porbandar in Gujarat	Undertaking dated 10/01/2013 for the Claim made only under CDM Scheme and not applied or requested under any other GHG scheme. is verified by the Assessment Team and found acceptable. Thus, this point of the CL is closed.

PP to provide the prior CDM consideration sent for WTG1. . Hence CL cannot be closed.

**Project Participant Response**

02/08/2013

A email copy received from Tatiana Pappe (TPappe@unfccc.int) dated 29/10/2009 has been provided to DoE for the CDM status of the project activity.

Version and date of the PDD is revised.



<b>Documents/ information provided by the Project Participant:</b>	
Revised PDD version 3.0 Email copy received from UNFCCC for the prior CDM consideration.	
<b>Reasoning for acceptance and non-acceptance</b>	14/08/2013
PP has provided the email received from UNFCCC.  Further, this CAR has been reopened due to ITR comments:  <ol style="list-style-type: none"><li>1. Intimation to UNFCCC for WTG1 was made after 180 days and thus it does not meet requirements of prior consideration as per VVS.</li><li>2. Please provide copy of intimation sent to DNA of India for WTG-1.</li><li>3. Please provide copy of F-CDM-Prior consideration form. Moreover on UNFCCC website there are several notifications for prior consideration. Please clarify.</li><li>4. Project title mentioned in prior consideration section of UNFCCC website is different</li><li>5. There are 2 WTGs and there are two decision dates and two purchase orders a detail on prior consideration is not mentioned separately for each WTG.</li><li>6. There is no date on the declaration on debundling.</li></ol> Hence CAR is open	
<b>Project Participant Response</b>	05/02/2014
<p>1) Initially, prior CDM consideration for WTG-1 (1.5 MW) was submitted on 29/09/2009. However, due to incomplete information, UNFCCC has sent a mail for complete submission. Considering all the information, revised submission was submitted the prior consideration after 180 days. However, one clarification was sent to UNFCCC for the acceptance of the initial submission of prior consideration on 03/12/2013. Responding to this mail, UNFCCC has intimated vide email dated 16/01/2014 that initial submission has been accepted and UNFCCC has revised the prior consideration page.</p> <p>2) Prior consideration submission to NCDMA for WTG-1 has now submitted.</p> <p>3) F-CDM-Prior consideration form has now submitted to DOE with this submission. Now UNFCCC website has 4 prior intimations for this project (two for WTG-1 and remaining two for WTG-2). For WTG-1, first submission was made on 29/09/2009 where complete detail was not mentioned. Thus, revised submission was made on</p>	



06/02/2010. Further, prior consideration intimation sent on 25/08/2010 was not correct. The correct prior consideration intimation was sent on 02/11/2010.

4) The project was implemented in phases and separate intimations were made for both phases as a result of which title was different. However both the WTGs are combined into a single project and title also is revised accordingly.

5) Details are now mentioned separately in revised PDD.

6) Declaration dated 03/2/2014 for debundling component of large scale CDM project activity has been provided

**Documents/ information provided by the Project Participant:**

E mail of UNFCCC for approval of delay is sent on 17-1-14

**Reasoning for acceptance or non-acceptance:**

07/02/2014

1) Validation team has checked the acceptance mail from UNFCCC and found that UNFCCC has accepted the submission of prior CDM consideration for WTG-1 dated 29/09/2009 and found correct. Further, validation team also checked the UNFCCC webpage for prior CDM consideration of WTG-1 and found that UNFCCC has revised the same. Thus, validation team has accepted that CDM consideration for WTG-1 was serious and in line with para 112 of VVS ver.05.0. Thus, this point of the CL is closed.

2) Validation team has checked the email communication sent to NCDMA and found correct. The intimation to NCDMA was made within 180 days of start date of phase I. Thus, this point of the CL is closed.

3) Validation team checked all the prior considerations submission by the PP to UNFCCC and found that PP has intimated the UNFCCC within 180 days of the respective project start date. PP has clarified that two intimations were made for WTG 1. First submission was made on 29/09/2009 where complete detail was not mentioned. Thus, revised submission was made on 06/02/2010. Further, PP has clarified that prior consideration intimation sent on 25/08/2010 was not correct and correct prior consideration intimation was sent on 02/11/2010. The validation team checked the above mentioned dates from prior consideration section on UNFCCC website and found that project is listed on these dates. Thus, this point of the CL is closed.

4) PP has clarified that separate intimations were made for both Phases as a result of which title was different. However both the WTGs are combined into a single project and title also is revised accordingly. Validation team checked the capacity, location and latitude and longitude of WTGs mentioned in two intimations made to UNFCCC and DNA of India for WTG1 and WTG 2 with capacity, location and latitude and longitude mentioned in this project and observed that they are same. Hence, validation team confirms that the WTGs mentioned in the F-CDM-Prior Consideration forms submitted for WTG1 and WTG 2 and in the proposed CDM project activity are same. Thus, the response provided by the PP was accepted.

5) PP has mentioned details on prior consideration separately for each WTG. Thus start date for phase I was 16/07/2009 and the email notification was sent to UNFCCC for prior consideration on 29/09/2009 The start date for Phase 2 was 12/08/2010. The intimation for prior consideration was sent on 02/11/2010. The validation team checked the prior consideration section on UNFCCC website and observed that date received is shown as 02/11/2010 on UNFCCC website. Thus prior consideration was sent to UNFCCC website on 02/11/2010 which is within 180 days from start date of Phase 2. Thus, same justification is accepted by the validation team. Thus, this point of the CAR is closed.



6) Validation team has checked the declaration provided by the PP dated 03/02/2014 and found that PP has now mentioned that PP doesn't have any registered CDM project within 1 km of this project activity. Thus, validation team concluded that the project activity is not a debundled component of large scale project activity. Thus, same justification is accepted by the validation team. Thus, this point of the CL is closed.  
Thus, CL is closed.

**Close out by Lead Assessor**

07/02/2014

Date:	21/02/2013	Raised by:	Dr. Shilpy Gupta & Mr. Manoj Srivastava	
Type of Finding	CL	S. No. of Finding	2	Reference
Details of the Finding:			VVS	
			21/02/2013	
<p>1) The description of project activity provided in section A.1 of the PDD is not as per the requirement specified in para 31 of PS and the guidelines on completing PDD, version 9 of EB 66. The following details are not provided in the PDD:</p> <p>a) Purpose of the project activity</p> <p>b) How the project activity will reduce GHG emissions</p> <p>c) Brief details of technology to be employed</p> <p>d) The scenario existing prior to the implementation of the project activity</p> <p>e) Whether project activity is a Greenfield, retrofication and modification in existing project activity</p> <p>2) PDD refers to 2*1.25 MW capacity WTG in section A.1 &amp; A.3 of the PDD which is contradicting with the capacity mentioned in section A.1 of the PDD as well as the supporting documents provided by PP. PP is requested to clarify for the same.</p> <p>3) The PDD states “Education level in Rajkot and Porbandar districts are 74.16% and 68.62% respectively, which is lower than the state average. In terms of literacy rate, the districts rank 7th and 12th respectively, out of the 26 districts in the state”. PP is requested to provide the supporting evidences for the same.</p> <p>4) The Censas of India used in the PDD is not the latest Censuses. PP is requested to clarify.</p> <p>5) PP is requested to provide the supporting evidences for all the statistics mentioned under the sustainable development criteria in section A.1 of the PDD.</p>				





<b>Project Participant Response</b>	19/03/2013
<p>1) The description as per para 31 of PS and Guidelines on completing PDD version 9 of EB 66 has been modified &amp; following sections has been incorporated in Section A.1 :</p> <ul style="list-style-type: none"><li>a) Purpose of the project activity</li><li>b) How the project activity will reduce GHG emissions</li><li>c) Brief details of technology to be employed</li><li>d) The scenario existing prior to the implementation of the project activity</li><li>e) Whether project activity is a Greenfield, retrofication and modification in existing project activity</li></ul> <p>2) The values related to the WTG capacity has been corrected as per the actual capacities of both WTGs in Section A.1 &amp; A.3.</p> <p>3) The values have been corrected as per Census 2011 in A.1 sub Section social well being under Main Section Sustainable Development criteria. The Supporting has been uploaded under Section "Other Documents" in drop box account. Sub Section Economical well being has been modified in PDD.</p> <p>4) The recent census of India i.e. 2011 has been included in the PDD</p> <p>5) The values along with the source &amp; reference document have been included in the PDD in A.1 of PDD and the supporting documents have been uploaded.</p>	
<b>Documents/ information provided by the Project Participant:</b>	
Revised PDD version 2.1	
<b>Reasoning for acceptance or non-acceptance:</b>	29/03/2013
<p>1) Validation team has checked the revised PDD and found that the description of project activity provided in section A.1 of the revised PDD, version 2.1 is as per the requirement specified in para 31 of PS and the guidelines on completing PDD version 9 of EB 66.</p> <ul style="list-style-type: none"><li>a) Validation team has checked the revised PDD and found that PP has appropriately incorporated the purpose of the project activity in the revised PDD, version 2.1. PP has clearly mentioned that they are wheeling electricity to the industrial unit at Ahmedabad. Same is acceptable to the validation team. Thus, this point of the CL is closed.</li><li>b) Validation team has checked the revised PDD and found that PP has appropriately incorporated that the project activity will wheeled the electricity to Ahmedabad unit</li></ul>	



and replace the usage of grid electricity which was produced from fossil fuel based power plant. Thus, the project will reduce the GHG emissions. Same is acceptable to the validation team. Thus, this point of the CL is closed.

c) Validation team has checked the revised PDD and found that PP has appropriately incorporated that PP is using WTG S-82 which were supplied & installed by Suzlon Energy Limited with rating of 1500 kW each has been installed at both sites, the first WTG at Village: Vershamedi, Ta: Maliya Miyana, District: Rajkot and the second at Village: Adodar, District: Porbandar sites respectively in the state of Gujarat, India. It is also verified by the Assessment Team during the site visit as well as cross verified with the commissioning certificates of both the WTGs. It is also verified by the Assessment Team during the site visit as well as cross verified with the commissioning certificates of both the WTGs i.e Certificate of Commissioning dated 12/10/2009 with reference number GEDA/PWF/SGWPL-BSPL/Maliya/09-10/4050 by GEDA for WTG-1 at Maliya Miyana and Certificate of commissioning by GEDA with reference Number GEDA/PWF/SGWPL-BSPL/Adhodar/10-11/3249 dated 23.85/02/2011 for WTG-2 at Adhodar in Gujarat. Same is acceptable to the validation team. Thus, this point of the CL is closed.

d) Validation team has checked the revised PDD and found that PP has appropriately incorporated that prior to the implementation of the project activity, the project participant was importing electricity from the fossil fuel dominant interactive Northern Eastern Western North-Eastern (NEWNE) grid to meet the energy need in Ahmedabad plant. Same is acceptable to the validation team. Thus, this point of the CL is close

e) Validation team has checked the revised PDD and found that PP has appropriately incorporated that The project is Greenfield project.as the project activity involves setting up new 2 x 1.5 MW WTGs at Maliya Miyana and Adhodar in Gujarat. It is also verified by the Assessment Team during site visit. Same is acceptable to the validation team. Thus, this point of the CL is close

2) Validation team has checked the revised PDD and found that the rated capacity of the WTGs has been corrected as 1.5MW both in section A.1 & A.3. It is also verified during the site visit by the Assessment team also cross verified with the commissioning certificates of both the WTGs.

3) The values have been corrected as per Census 2011 in A.1 sub Section social well being under Main Section Sustainable Development criteria. It is verified with the Sencus 2011 for Gujarat and for all India dated December 2011 by Government of Gujarat. PP has updated the Education level in Rajkot and Porbandar districts are 82.20 and 76.63% respectively.

4) The recent census of India i.e. 2011 has been included in the PDD (link for the same is also mentioned in the revised PDD, version 2.1. PP has also provided the Copy of Sencus 2011 for All India and Gujarat state dated December 2011 by Government of Gujarat.

5) The values along with the source & reference document have been included in the PDD in A.1 of PDD and the supporting documents have also been verified by the Assessment Team. Same is acceptable to the validation team. Thus, this point of the CL is close.

During ITR, this CAR has been reopened due to following issue:

3 & 4) The details provided under point no social well being are not clear.



<b>Project Participant Response</b>	05/02/2014
3 & 4) Social well being is removed now.	
<b>Reasoning for acceptance or non-acceptance:</b>	07/02/2014
3 & 4) Validation team has checked the revised PDD and found that PP has now revised the social well being in the section A.1 of the PDD. It is mentioned that employment generation raises the standard of living and social upliftment which is correct. Same is acceptable to the validation team. Thus, this point of the CL is close.	
Thus, CL 2 is closed.	
<b>Close out by Lead Assessor</b>	07/02/2014

Date:	21/02/2013	Raised by:	Dr. Shilpy Gupta & Mr. Manoj Srivastava		
Type of Finding	CAR	S. No. of Finding	3	Reference	VVS
Details of the Finding:			21/02/2013		
Section B.3 of the PDD refers to western (regional) grid in the project boundary diagram. PP is requested to justify the same.					
Project Participant Response			19/03/2013		
In Section B.3, The changes have been made throughout the PDD from Western to NEWNE Grid as NEWNE Grid is applicable as per the project Location.					
Documents/ information provided by the Project Participant:					
Revised PDD					
Reasoning for acceptance or non-acceptance:			29/03/2013		
The project is located in the state of Gujarat and the generated electricity would be consumed in the industrial unit at Ahmadabad. Thus, the generated electricity would be injected to the NEWNE grid. PDD has been revised and NEWNE grid has been mentioned. Thus, validation team accepted the same. Thus, CAR 3 is closed.					
Close out by Lead Assessor			29/03/2013		

<b>Date:</b>	21/02/2013	<b>Raised by:</b>		Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<b>Type of Finding</b>	CAR	<b>S. No. of Finding</b>	4	Reference	VVS
<b>Details of the Finding:</b>					
The start date of the project activity is not provided in section B.5 of the PDD. PP is requested to provide the same and justify with the supporting evidence. Further the basis					



for selecting the starting date of the project activity is not provided in the section C.1.1.

The start date of crediting period provided in section C.2.2 of PDD is not in line with the para 60 of PS.

**Project Participant Response**

19/03/2013

The start date i.e. Date of Board Resolution- 28.04.2009 which is mentioned & referred in section B.5 of PDD under sub section Chronology: Project Activity Implementation. The basis for selection of starting date is updated in PDD section C1.1.

The supporting document i.e. Board resolution is uploaded for your reference in folder WTG-1 16.BR\_28.04.2009 & BR\_ Adodar in folder WTG-2.

As per para 60 of PS, the start date of crediting has been assumed as 01/07/2013 i.e. the expected date of registration under CDM. The same has been included in section C.2.2.

**Documents/ information provided by the Project Participant:**

PP to provide list of documents.

**Reasoning for acceptance or non-acceptance:**

29/03/2013

The start date of the project activity cannot be the date of the board resolution. It is not in line with Glossary of CDM terms. PP to justify.

The start date of the crediting period has been modified in the revised PDD version 2.1 as 01/07/2013. Same is also included in section C.2.2 which is in line with para 60 of project standard.

**Project Participant Response**

02/08/2013

Start date of the project activity is revised in the PDD version 03 as purchase order among both WTGs i.e. 16/07/2009 (The First Purchase Order date among both WTGs). Start date of the crediting period is also revised as 01/09/2013.

**Documents/ information provided by the Project Participant:**

Revised PDD version 3.0 dated 02/08/2013

**Reasoning for acceptance or non-acceptance:**

14/08/2013

PP has issued the purchase orders to the WTG supplier on 16/07/2009 for the first WTG and PP has considered the purchase order date as the start date of the project activity. It has been verified by validation team that the start date represents the earliest date on which the project participant has taken real actions towards the project activity as per the Glossary of CDM Terms version 07.0, Annex 7, EB 70. Start date of the crediting period is acceptable to the validation team.

During ITR, this CAR has been reopened due to following issue:

Start date of the crediting period has been expired.



<b>Project Participant Response</b>		05/02/2014
Start date of the crediting period is now revised with 15/05/2014		
<b>Documents/ information provided by the Project Participant:</b>		
Revised PDD		
<b>Reasoning for acceptance or non-acceptance:</b>		07/02/2014
Validation Team checked the revised PDD and found that PP has now revised the start date. Same is found to be correct and acceptable to the validation team. Thus, CAR 4 is closed.		
<b>Close out by Lead Assessor</b>		07/02/2014

Date:	21/02/2013	Raised by:	Dr. Shilpy Gupta & Mr. Manoj Srivastava		
Type of Finding	CAR	S. No. of Finding	5	Reference	VVS
Details of the Finding:		21/02/2013			
Section E.1 of the PDD states “distributing pamphlets and organizing meetings and seeking public inputs relating to the project activity”. However the PDD is not transparent on how many pamphlets have been distributed and how are they distributed. It is also not transparent on how are they distributed. The PDD is also not transparent on when did the stakeholder meeting have been conducted and how many of the stakeholders have attended the meeting. Further the PDD is also not transparent on identification of the relevant stakeholders.					
Project Participant Response			19/03/2013		
The Section E.1 has been updated including all arrangement of the stakeholder meeting, people who have attended communication to stakeholder for the stakeholder of project activity etc.					
The documents related to stakeholder has been uploaded in “other documents”-Stakeholder Consultation					
Documents/ information provided by the Project Participant:					
1) Stakeholder invitation pamphlet					
2) Minuets of Meeting					
Reasoning for acceptance or non-acceptance:			29/03/2013		
Validation team checked the Minutes of meetings for Local Stake holder Consultation process and found that the stakeholders’ meeting was conducted on 07/10/2010 for both the location Vershamedi (Rajkot) and Adodhar (Porbandar). Further, 26 stakeholders were attended the meeting at Rajkot and 25 stakeholders were attended the meeting at Porbandar site. Same is acceptable to the validation team and found correct.					



PP has incorporated detail of the stake holder meeting in section E.1 & E.2 of the revised PDD.

During ITR, this CAR has been reopened due to following issue:

It is not clear how many and how the pamphlet was distributed to invite the local stakeholders.

**Project Participant Response**

05/02/2014

Pamphlets are single page document which was distributed to the local villages and other identified stakeholders' of the project. 100 copies of pamphlet was distributed to each site. It was distributed manually to the stakeholders.

**Documents/ information provided by the Project Participant:**

Stakeholders' invitation pamphlets

**Reasoning for acceptance or non-acceptance:**

07/02/2014

Validation team checked the stakeholders' invitation pamphlets and found that pamphlets contained details of and purpose of stakeholder meeting. PP has clarified that 100 pamphlets were distributed for stakeholder meeting. The stakeholder minute of meetings and attendance sheets were also checked. Same is found correct and acceptable to the validation team.. Further, validation team accepted the justification provided by the PP. Thus, same is found correct. Thus, CAR 5 is closed.

**Close out by Lead Assessor**

07/02/2014

<b>Date:</b>	<b>21/02/2013</b>	<b>Raised by:</b>	Dr. Shilpy Gupta & Mr. Manoj Srivastava		
<b>Type of Finding</b>	<b>CAR</b>	<b>S. No. of Finding</b>	6	Reference	VVS
<b>Details of the Finding:</b>		21/02/2013			
The technical specifications of the WTGs involved in the project activity are provided as Appendix 7 which is not in line with the PDD template. Further the technical specifications provided in the Appendix 7 of the PDD refer to WTGs of S-66 model of Suzlon make, which is not correct. PP is requested to refer the correct model and make of the WTGs involved in the project activity and provide the technical specifications of the same in the relevant section and also provide the supporting evidences for the same.					
<b>Project Participant Response</b>			19/03/2013		
The values in regard to the Model number has been corrected as per the PO of WTGs & The information related to the technical specifications which are required to measured the GHG Emissions due to the project activity implementation have been included in Section A.3 instead of Appendix 7 and The information related to equipment, systems and measures that are auxiliary do not affect directly or indirectly GHG emissions and/or mass and energy balances of the processes related to the project activity have not been included as per the latest PDD template & Guidelines.					





<b>Documents/ information provided by the Project Participant:</b>	
PO has been uploaded for your reference in WTG Folder-1 & WTG Folder-2 in dropbox account	
<b>Reasoning for acceptance or non-acceptance:</b>	29/03/2013
<p>Technical specification of the WTGs is now included in section A.3 of the PDD which include operational data, specification of rotor, generator and WTG main panel etc. The model number has been corrected to S-82 in the technical description of the PDD which is crosschecked with the technical specification provided by Suzlon for both the WTG which is acceptable to the Assessment Team. Appendix-7 is also deleted in the revised PDD version 1.1 which is now inline with the PDD template.</p> <p>Thus, CAR 6 is closed.</p>	
<b>Close out by Lead Assessor</b>	29/03/2013

<b><u>Date:</u></b>	21/02/2013	<b><u>Raised by:</u></b>		Dr. Shilpy Gupta Mr. Manoj Srivastava	
<b><u>Type of Finding</u></b>	CAR	<b><u>S. No. of Finding</u></b>	7	Reference	VVS
<b><u>Details of the Finding:</u></b>		21/02/2013			
<div>1. The PDD refers to “Tool for the demonstration and assessment of additionality”(Version 06.0.0) and Tool to calculate the Emission Factor for an electricity system”(version 02.2.1) which are not the latest version availavble. PP is requested to use the latest versions of the same.</div> <div>2. The “Glossary of CDM terms” referred in the PDD is of version 05 which is not the latest version available on the UNFCCC website. PP is requested to use the latest version.</div> <div>3. PP is requested to provide the supporting evidences for all chronology of events mentioned in the section B.5.1 of the PDD.</div> <div>4. PP is requested to provide supporting evidence for the expected operational lifetime of project activity.</div> <div>5. PP is requested to use the correct format for the date as well as font size and not to alter the template.</div>					
<b><u>Project Participant Response</u></b>			19/03/2013		
<div>1. The latest version has been updated in PDD for “Tool the demonstration and assessment of additionality ”i.e. Version 07.0.0(from Version 6.0) and version 03.0 (from Version 2.1)Tool to calculate the Emission Factor for an electricity system”.</div> <div>2. The version of “Glossary of CDM terms” referred in the PDD has been updated to Version 7.0(from Version 5.0) which is the latest version available on the UNFCCC website.</div>					



3. The chronology events has been updated and the supporting evidences for the same has been uploaded in the Folder other documents in Dropbox.
4. The evidence has been uploaded in folder "other Document "drop box account. Documents 1.0 Agreement with Agrinergy, 2.0 Terminations, 3.0 Agreement with Sun Shakti Energy Solutions Pvt. Ltd.
5. The documentary evidence i.e. declaration by Suzlon has been uploaded in the folder "Supporting Document"

**Documents/ information provided by the Project Participant:**

Revised PDD

**Reasoning for acceptance or non-acceptance:**

29/03/2013

1. In the revised PDD, PP has revised the versions for the tool the demonstration and assessment of additionality to version 07.0.0 from version 6.0 and and for Tool to calculate the Emission Factor for an electricity system from version 03.0 from version 2.1.
2. Glossary of CDM terms in the revised PDD version 1.1 is now updated to version 7.0 from version 5.0. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.
3. PP has provided the supporting documents for the chronology of events and the same is verified by the assessment team. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.
4. PP has provided the supporting documents for the expected operational lifetime of the project activity.

Further, This CAR has been reopened due to ITR comments:

- 1) Tool the demonstration and assessment of additionality to version 07.0.0 is not appropriate for this project as it is a small scale project.
- 4) Lifetime considered in this project is not correct.
- 5) Response provided to point no 5 above is not adequate. Font size and template are not corrected.

**Project Participant Response**

05/02/2014

- 1) Additionality has been revised with Guidelines on the demonstration of additionality of small-scale project activities (ver. 09 EB 68 Annex 27). Please refer to additionality section of the revised PDD.
- 4) Lifetime is correct now.



5) Font size and font size are now corrected in PDD according to the template.	
<b>Documents/ information provided by the Project Participant:</b>	
Revised PDD	
<b>Reasoning for acceptance or non-acceptance:</b>	07/02/2014
<p>1) Validation team has checked the revised PDD and found that PP has now removed the additionality tool and demonstrated the additionality with Guidelines on the demonstration of additionality of small-scale project activities (ver. 09 EB 68 Annex 27) which is the latest guideline available for small scale project activity. Thus, same is acceptable to the validation team. Thus, CAR is closed.</p> <p>4) The expected operational life time of the project activity is 25 years and the same has been verified from the GERC tariff order dated 30/01/2010. The wheeling agreement is also signed for 25 years with Torrent Power Limited for second WTG. Thus the lifetime of 25 years is acceptable to the validation team. Thus, this point of the CAR is closed.</p> <p>5) Validation team has checked the revised PDD and found that PP has now appropriately revised the PDD with correct format for the date as well as font size. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.</p> <p>Further, following point has been reopened during ITR:</p>	
<b>Close out by Lead Assessor</b>	07/02/2014

<b><u>Date:</u></b>	<b>21/02/2013</b>	<b><u>Raised by:</u></b>		Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<b><u>Type of Finding</u></b>	<b>CAR</b>	<b><u>S. No. of Finding</u></b>	8	Reference	VVS
<b><u>Details of the Finding:</u></b>			21/02/2013		
1) Source document have not been provided for PLF of WTG-1(B17) and WTG-2(B20) in Key Inputs Sheet.					
2) Cost of WTG-2 with Tower (G28) is not correct in Key Inputs Sheet.					
3) Cost of row no. 29 to 37 in Key Inputs Sheet is not mentioned in source document.					
4) To check Loan Details 43 to 46, source document (Loan Sanction Letter) has not been provided.					
5) Site Link is not correct for Income Tax Rate (65) in Key Inputs Sheet.					
6) Minimum Alternative Tax Rate (F73) is not correct and Site Link is also not correct for MAT Rate (66) in Key Inputs Sheet.					



- 7) CER Price (B78) has not been mentioned in Key Inputs Sheet.
- 8) EURO Rate (B79) is not correct and site link is also not correct for this in Key Inputs Sheet.
- 9) For O/M Cost of WTG-1, source document has not been provided.
- 10) O/M Cost of WTG-2 is not correct as per source document provided.
- 11) Source documents have not been mentioned for Insurance Cost for WTG-1 and WTG-2.
- 12) Escalation on Admn. Cost (V59) is not correct in Key Inputs Sheet.
- 13) Site Link has not been mentioned for Inflation Prices in Benchmark Sheet.
- 14) Key Inputs data have not been mentioned in the PDD.
- 15) (U37) and (V37) in Profit & Loss Sheet are not correct

**Project Participant Response****19/03/2013**

- 1) The link of source document have been provided for PLF of WTG-1(B17) and WTG-2(B20) in Key Inputs Sheet
- 2) This has been corrected in cell H 28 from INR 52,497,000 to INR 59,497,000
- 3) The source documents have been updated in the Key Input Sheet of IRR Calculation \_V-3. All the key input paramaters have included in Section the PDD
- 4) Please refer the loan sanctioned letter in folder "other document" to support the values mentioned in B43 to B46 & C43 : C46
- 5) The site link for Income Tax has been included in Cell B 65
- 6) The site link for MAT has been included in Cell B 66 & E73.
- 7) CER Price (B78) has already been mentioned in Key Inputs Sheet but it will be appeared if "Yes" option through drop down menu will be selected in cell B76.
- 8) The old EURO Rate 68.59 was updated to Euro Rate i.e. 65.68 on the date of decision making 28.04.2009 in cell (B79) with the source link.



- 9) The Source document has been uploaded in folder "WTG-1" reference number 13.A & 13.B in dropbox account.
- 10) O/M Cost of WTG-2 is not correct as per source document provided. Source document attached in WTG-2 reference number 13
- 11) The supporting document for Insurance has been uploaded in the dropbox folder WTG 1 & WTG 2 reference number 10
- 12) Escalation on Admn. Cost (V59) has been corrected in Key Inputs Sheet.
- 13) Site Link has been mentioned for Inflation Prices in Benchmark Sheet in column H7 in excel attached. Please find the reference documents in folder other document named 1) Inflation snapshot from IMF and 2) Supporting document for benchmark sheet.
- 14) Key Inputs data have been included in the PDD.
- 15) (U37) and (V37) in Profit & Loss Sheet are revised.

**Documents/ information provided by the Project Participant:**

Revised PDD

**Reasoning for acceptance or non-acceptance:****31/03/2013**

- 1) Reference of source document for PLF have been provided by the PP in the IRR sheets. Same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 2) Cost of WTG has been corrected in the revised financial sheet. Validation team has checked the same from offer letters and found correct. Thus, this point of the CAR is closed.
- 3) Cost of row no. 29 to 37 in Key Inputs Sheet are not mentioned in source document.
- 4) Interest Rate for WTG 1 (B 44) is not correct as per source document in Key Inputs Sheet.
- 5) Site Link is not correct for Income Tax Rate (65) in Key Inputs Sheet
- 6) Minimum Alternative Tax Rate (F73) is not correct and Site Link is also not correct for MAT Rate (66) in Key Inputs Sheet
- 7) Validation team checked the revised financial sheet and found that CER price available during decision making is now included in the financial sheet. Same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 8) Validation team checked the revised financial sheet and found that exchange rate of EURO available during decision making is now included in the financial sheet. Same is acceptable to the validation team. Thus, this point of the CAR is closed.



- 9) O/M Cost for WTG-1 has not been matched with source document.
- 10) O/M Cost for WTG-2 has not been matched with source document.
- 11) Insurance Cost has not been matched with source document
- 12) Clarification submitted by PP is correct in revised financial data
- 13) Provided Site Link is not correct.
- 14) Total Cost of WTG 2 (H 38) has not been matched with PDD
- 15) Validation team checked the revised financial sheet and found that (U37) and (V37) in Profit & Loss Sheet are now revised in the financial sheet. Same is acceptable to the validation team. Thus, this point of the CAR is closed.

Apart from these there are some additional findings as follows-

WTG-1:

- 16) D11 & D12 of Assumptions Sheet have not been linked with Escalation in Tariff Sheet.
- 17) Provide Govt./Income Tax web link for Book Depreciation (D27) of Assumptions Sheet.
- 18) Book Depreciation up to (% of asset value) (D28) of Assumptions Sheet is not correct as per source document.
- 19) Income Tax Rate (D 31) has not been mentioned in source document.
- 20) Provide Govt./Income Tax web link for Service Tax (D33), Surcharge (D34) and Education Cess (D35) of Assumptions Sheet.
- 21) MAT (D38) of Assumptions Sheet is not correct.
- 22) Exchange price (Rs./Euro) (D43) of Assumptions Sheet is not correct.
- 23) (D8 to D11) of Project Cost Sheet have not been mentioned in source document.





- 24) O&M Cost for sub-station (C20) of Project Cost Sheet is not correct. It should be two decimal point.
- 25) Depreciable Cost (D56) of P&L Sheet is not correct. Evacuation Charges (C11) and Govt / Statutory Charges (C12) of Project Cost Sheet should not be deducted from total cost.
- 26) Salvage Value (W9) of Cash Flow sheet is not correct Evacuation Charges (C11) of Project Cost Sheet should not be deducted from total cost.
- 27) Web link is not correct for Punjab National Bank (E6) of Interest Rate Estimation Sheet is not correct.
- 28) Operation & Maintenance Cost (C17) of project cost Sheet is not correct. In this cost tax should be added.

#### WTG-2

- 29) Source document for Saving in Electricity per unit (D11) & Escalation in Tariff (D12) of Assumptions Sheet have not been provided.
- 30) Provide Govt./Income Tax web link for Book Depreciation (D27) of Assumptions Sheet.
- 31) Book Depreciation up to (% of asset value) (D28) & Salvage Value (D29) of Assumptions Sheet have not been mentioned in source document.
- 32) Web link for IT Depreciation (D25) of Assumption Sheet is not correct.
- 33) Web link for (D31 to D35) of Assumption Sheet are not correct. These are for Assessment Year 2012-13 not for Assessment Year 2011-12
- 34) Provide source document "Bank Application Letter" for PLF (D9) of Assumption Sheet
- 35) Exchange price (Rs./Euro) (D43) of Assumptions Sheet is not correct.
- 36) Project cost (C4 to C11) of Project Cost Sheet are not correct as per source document
- 37) (D8 to D11) of Project Cost Sheet have not been mentioned in source document
- 38) O&M Cost for sub-station (C20) of Project Cost Sheet is not correct. It should be two decimal point
- 39) Depreciable Cost (D56) of P&L Sheet is not correct. Evacuation Charges (C11) and Govt / Statutory Charges (C12) of Project Cost Sheet should not be deducted from total cost.



40) Salvage Value (W9) of Cash Flow sheet is not correct Evacuation Charges (C11) of Project Cost Sheet should not be deducted from total cost.

41) Web link is not correct for Punjab National Bank (E6) of Interest Rate Estimation Sheet is not correct.

42) State Bank of India (E5) of Interest Rate Estimation Sheet is not correct.

43) Name of the bank has not been mentioned for (C6) of Interest Rate Estimation Sheet.

Hence CAR is open

**Project Participant Response****02/08/2013**

3) Cost of row no. 29 to 37 in Key Inputs Sheet is mentioned in source document.

4) Interest Rate for WTG 1 (B 44) is now corrected as per source document in Key Inputs Sheet.

5) Site Link is now correct for Income Tax Rate (65) in Key Inputs Sheet.

6) Minimum Alternative Tax Rate (F73) is now corrected and Site Link is also revised for MAT Rate (66) in Key Inputs Sheet

9) and 10) O/M Costs has now been corrected as per the source document.

11) Insurance Cost has now been corrected as per the source document

13) Provided Site Link is now corrected.

14) Total Cost of WTG 2 (H 38) has now been corrected in the revised PDD.

For WTG-1

16) It is deleted now in the revised excel sheet.

17) Web link is provided now in the revised excel sheet.

18) It is now corrected in the revised IRR sheet.

19) It is mentioned in para 42 page 15 of the source document



- 20) It is corrected now in the revised IRR sheet.
- 21) It is corrected now in the revised financial sheet.
- 22) It is corrected now
- 23) It is mentioned at page number 2 of the source document.
- 24) It is corrected now in the revised excel sheet.
- 25) It is corrected now in the revised excel sheet.
- 26) It is corrected now in the revised excel sheet.
- 27) Correct link for PNB was already there in the IRR sheet.
- 28) It has been corrected in the revised sheet

For WTG 2

- 29) It is corrected now in the revised IRR sheet.
- 30) It is corrected now in the revised IRR sheet.
- 31) It is corrected now in the revised IRR sheet.
- 32) It is corrected in the revised IRR sheet.
- 33) It is revised now.
- 34) It is provided now.
- 35) It is revised now
- 36) It is revised now.



37) It is as per the normal practice.

38) It is as per the normal practice.

39) It is revised now.

40) It is revised now

41) PNB is not considered in the benchmark study.

42) It was already correct.

43) It is revised now

**Documents/ information provided by the Project Participant:****07/08/2013**

Revised PDD version 3.0 dated 02/08/2013

Revised IRR sheet dated 02/08/2013

**Reasoning for acceptance or non-acceptance:****07/08/2013**

3) Validation team has checked the revised financial sheet and found that cost of WTG and its associated components are now appropriately incorporated. Validation team has checked the same from offer letters and found correct. Thus, this point of the CAR is closed.

4) Validation team has checked the revised financial sheet and found that PP has considered interest from loan sanction letter which was not available during decision making. Thus, this point of the CAR is open.

5) Validation team has checked the revised financial sheet and found that PP has appropriately considered the prevailing rate of income tax (33.99% for WTG-1 and 33.22% for WTG-2) from the website of Income tax of India, Govt of India. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

6) Validation team has checked the revised financial sheet and found that PP has appropriately considered the prevailing rate of MAT (17% for WTG-1 and 19.93% for WTG-2) from the website of Income tax of India, Govt of India. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

9) Validation team has checked the revised financial sheet for WTG-1 and found that PP has appropriately considered the O&M cost i.e. INR 1.76 million (including service tax) from offer letter dated 15/04/2009. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

10) Validation team has checked the revised financial sheet for WTG-2 and found that PP has appropriately considered the O&M cost i.e. INR 1.76 million (including service



tax) from offer letter dated 26/07/2010. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

11) Consideration of insurance cost is not appropriate as same document was not available during decision making. Thus, this point of the CAR is open.

12) PP has not responded the same findings. Further, as the O&M would be done by the O&M contractor as per the offer letter, thus, usage of admin cost is not correct. Thus, this point of the CAR is open.

13) During decision making inflation rate of India was published by Reserve bank of India. Thus, consideration of inflation from IMF is not appropriate. Thus, this point of the CAR is open.

14) Validation team has checked the revised financial sheet for WTG-1 and WTG-2 and found that PP has appropriately considered the project costs from the offer letters dated 15/04/2009 and 26/07/2010 respectively. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

#### WTG-1

16) (D11 & D12) of Assumptions Sheet have not been linked with Escalation in Tariff Sheet. CAR is open.

17) Validation team has checked the revised IRR sheet and found that Govt. Web link is provided now provided for book depreciation. Same has been checked and found correct. Thus, this point of the CAR is closed.

18) Validation team has checked the revised IRR sheet and found that PP has considered book depreciation up to 90% of the asset value in line with CERC order dated 1/02/2009. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

19) Validation team checked the source document for income tax applicable during decision making. However, same is not the rate of Income Tax on companies. Same is the rate of tax on anonymous donation. Thus, CAR is open.

20) Validation team checked the source document and found that the document for Service Tax (D33) is not applicable on decision date. Thus, CAR is open.

21) Validation team checked the revised IRR sheet and found that PP has appropriately considered the MAT rate (17%) available during decision making. Same has been checked and found correct. Thus, this point of the CAR is closed.

22) Validation team checked the revised IRR sheet and found that PP has appropriately revised the Exchange rate of EURO (INR 65.86/EURO). Same has been checked and found correct. Thus, this point of the CAR is closed.

23) Applied service Tax has not been specifically mentioned in source document. Justification is required. Thus, CAR is open.



24) PP has not revised the O&M Cost for sub-station (C20) in the revised excel sheet. Thus, CAR is open.

25) Validation team checked the revised IRR sheet and found that PP has appropriately revised the depreciation cost in P&L sheet. Now PP has considered total project cost as the depreciable cost in the financial sheet. Same has been checked and found correct. Thus, this point of the CAR is closed.

26) Validation team checked the revised IRR sheet and found that PP has appropriately revised the calculation of salvage value calculation. Same has been checked and found correct. Thus, this point of the CAR is closed.

27) Validation team checked the revised IRR sheet and found that PP has not appropriately revised web link is for Punjab National Bank. Thus, CAR is open.

28) Validation team checked the revised IRR sheet and found that PP has appropriately considered the prevailing service tax on Operation & Maintenance Cost (C17) of project cost sheet. Same has been checked and found correct. Thus, this point of the CAR is closed.

#### WTG-2

29) Calculation of Escalation in Tariff (D12) is not clear. Thus, CAR is open.

30) Validation team has checked the revised IRR sheet and found that Govt. Web link is provided now provided for book depreciation. Same has been checked and found correct. Thus, this point of the CAR is closed.

31) Validation team has checked the revised IRR sheet and found that PP has considered book depreciation up to 90% of the asset value and salvage value (@ 10%) in line with CERC order dated 26/04/2010. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

32) Validation team has checked the revised IRR sheet and found that PP has now revised the web link for IT depreciation as per IT act, Govt of India. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

33) Validation team has checked the revised IRR sheet and found that PP has now appropriately revised the rate of income tax, MAT, surcharge and education cess. However, the Web links for Service Tax (D33) is not correct. Thus, CAR is open.

34) Validation team has checked the letter issued by Bank of Baroda dated 23/08/2013 and found that bank has considered 23.85% PLF for project assessment. Validation team has checked the same letter and also checked the IRR and ER sheets and found that PP has appropriately considered the same value of PLF in IRR and ER sheet. Same has been checked and found correct. Thus, this point of the CAR is closed.

35) Validation team checked the revised IRR sheet and found that PP has appropriately revised the Exchange rate of EURO (INR 60.70/EURO). Same has been checked and found correct. Thus, this point of the CAR is closed.





- 36) Validation team checked the revised IRR sheet and found that PP has appropriately incorporated the components of the project cost in the revised IRR sheet. Same has been checked and found correct. Thus, this point of the CAR is closed.
- 37) It has not been corrected in the revised excel sheet. Thus, CAR is open.
- 38) It is not corrected in the revised excel sheet. Thus, CAR is open.
- 39) Validation team checked the revised IRR sheet and found that PP has appropriately revised the depreciation cost in P&L sheet. Now PP has considered total project cost as the depreciable cost in the financial sheet. Same has been checked and found correct. Thus, this point of the CAR is closed.
- 40) Validation team has checked the revised IRR sheet and found that PP has considered book depreciation up to 90% of the asset value and salvage value (@ 10%) in line with CERC order dated 26/04/2010. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.
- 41) Validation team has checked the revised IRR sheet and found that PP has now removed the BPLR rate for Punjab National Bank. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.
- 42) PLR is as on 29.06.2009 and not on 29.06.2010. Thus, CAR is open.
- 43) Validation team has checked the revised IRR sheet and found that PP has now incorporated the name of the Bank (Bank of Baroda) in the interest rate estimation. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

**Project Participant Response**

08/08/2013

WTG-1

- 16) Escalation now calculated transparently and linked with the assumption sheet.
- 19) Source has been revised.
- 20) Source has been revised.
- 23) it is corrected now
- 24) revised to two decimal point
- 27) Please check in below section of the page.

WTG-2

29) new sheet has been incorporated

33) Source has been revised

37) Tax are not removed.

38) it is revised now

42) Date has been revised.

**Documents/ information provided by the Project Participant:**

08/08/2013

Revised IRR sheets

**Reasoning for acceptance or non-acceptance:**

09/08/2013

WTG-1

16) D11 of Assumptions Sheet has not been linked with Escalation in Tariff Sheet.

19) Validation team checked the source document for income tax applicable during decision making and found that PP has now appropriately considered the rate of Income Tax on companies. Same has been checked and found correct. Thus, this point of the CAR is closed.

20) Source document for Service Tax (D33) is not applicable on decision date. CAR is open.

23) Validation team checked the revised source document for service tax and found that PP has now considered the service tax from Directorate of Service Tax, Department of Revenue, Ministry of Finance, Govt of India. Same has been checked and found correct. Thus, this point of the CAR is closed.

24) Validation team checked the revised calculation of O&M cost for sub-station for WTG-1 and found that PP has now corrected the same to two decimal point and it is as per the offer letter. Same has been checked and found correct. Thus, this point of the CAR is closed.

27) Validation team checked the revised IRR sheet and found that PP has appropriately revised web link is for Punjab National Bank. Same has been checked and found correct. Thus, this point of the CAR is closed.

WTG-2



29) Validation team checked the revised IRR sheet and found that PP has appropriately mentioned the escalation of electricity tariff in the assumption sheet itself for better clarity. Further, validation team has checked the estimation of escalation of electricity tariff sheet and found that PP has calculated Compounded Annual Growth Rate (CAGR) considering energy charge from July-2005 to June 2010. Same has been checked and found correct. Thus, this point of the CAR is closed.

33) Validation team checked the revised IRR sheet and found that PP has now appropriately considered the Income tax, MAT rate, service tax, surcharge and education cess for assessment year 2011-12. Same has been checked and found correct. Thus, this point of the CAR is closed.

37) Validation team checked the revised IRR sheet and found that PP has appropriately considered the service tax in the identified items of the project cost. Further, same is also confirmed from the purchase orders. Same has been checked and found correct. Thus, this point of the CAR is closed.

38) Validation team checked the revised calculation of O&M cost for sub-station for WTG-2 and found that PP has now corrected the same to two decimal point and it is as per the offer letter. Same has been checked and found correct. Thus, this point of the CAR is closed.

42) Validation team checked the revised IRR sheet and found that PP has now appropriately incorporated the BPLR rate (11.75%) for State Bank of India (E5). Same has been checked and found correct and applicable to the decision making. Thus, this point of the CAR is closed.

**Project Participant Response**

12/08/2013

WTG-1

16) It is mentioned now directly

20) Source has been revised.

**Documents/ information provided by the Project Participant:**

12/08/2013

Revised IRR sheet.

**Reasoning for acceptance or non-acceptance**

14/08/2013

**WTG1**

16) Validation team checked the revised IRR sheet and found that PP has appropriately mentioned the escalation of electricity tariff in the assumption sheet itself for better clarity. Further, validation team has checked the estimation of escalation of electricity tariff sheet and found that PP has calculated Compounded Annual Growth Rate (CAGR) considering energy charge from April-2004 to March-2009. Same has been checked and found correct. Thus, this point of the CAR is closed.

20) Validation team checked the revised source document for service tax applicable during decision making and found that PP has now considered the service tax from



Directorate of Service Tax, Department of Revenue, Ministry of Finance, Govt of India. Same has been checked and found correct. Thus, this point of the CAR is closed.

During ITR following comments has been reopened:

PP has not responded following issues which was raised on not 07/08/2013:

- 4) Interest rate is not correct for WTG 2.
- 11) The response has not been provided regarding insurance cost.
- 12) The response has not been provided regarding admin cost.
- 13) The response has not been provided regarding inflation rate of IMF.
- 14) Electricity tariff considered for WTG-1 is not correct.

Further PP is requested to explain following

- a) Many input parameters such as project cost, exchange rate for WTG 1 mentioned in PDD does not match with IRR sheet. Service tax is not correct and source of service tax is not correct.
- b) IRR values mentioned in PDD does not match with the values mentioned in IRR sheet for the two WTGs. Sensitivity values mentioned in PDD does not match with IRR sheet. Justification for sensitivity range is not mentioned in PDD.

<b>Project Participant Response</b>	05/02/2014
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- |  |
|--|
| <ul style="list-style-type: none"><li>4) Minimum Benchmark Prime Lending Rate rates of 5 nationalized banks available during decision making been considered as the interest rate.</li><li>11) Insurance cost has already been deleted from the IRR sheets</li><li>12) Admin cost has already been deleted from the IRR sheets.</li><li>13) Inflation for benchmark determination have been considered from Reserve Bank of India. IMF inflation forecast is not considered</li><li>14) Tariff is now considered form the month of March 2009 which was available at the time of decision making of the Ahmadabad unit where power is wheeled. This value is comprising of energy charge @ INR 3.25/kWh and FPPP charge @ INR 0.82/ kWh.</li></ul> |
|--|



- a) Input parameters are now consistent with the IRR sheet. Further, service tax has now sourced from Directorate of Service Tax, Department of Revenue, Ministry of Finance
- b) IRR values and sensitivity values mentioned in PDD are now made consistent with the IRR sheets.

**Documents/ information provided by the Project Participant:**

Revised IRRs

**Reasoning for acceptance or non-acceptance:**

06/02/2014

4) Validation team has checked the revised financial sheet and found that PP has considered the minimum BPLR for 5 nationalized banks as interest rate for WTG-1. Further, PP has considered the minimum BPLR for 4 nationalized banks as interest rate for WTG-2. The considered rates were available during decision making. Thus, same is found correct and acceptable to the validation team. Thus, this point of the CAR is closed.

11) Validation team has checked the revised financial sheets and found that PP had removed the insurance cost from both the IRR sheets. Thus, same is found correct and acceptable to the validation team. Thus, this point of the CAR is closed.

12) Validation team has checked the revised financial sheets and found that PP had removed the admin cost from both the IRR sheets. Thus, same is found correct and acceptable to the validation team. Thus, this point of the CAR is closed.

13) Validation team has checked the revised financial sheets and found that PP had considered inflation rates from Reserve Bank of India available during decision making. Same is found correct and acceptable to the validation team. Inflation forecast from IMF has not been considered. Thus, this point of the CAR is closed.

14) Validation team assessed the revised IRR sheet for WTG-1 and found that PP has now considered electricity unit rate for the month of March 2009 of the Ahmadabad unit where power is wheeled. From the electricity bill, PP has considered energy charge of INR 3.25/kWh and FPPP charge of INR 0.82/ kWh. Same is found to be correct. Thus, this point of the CAR is closed.

a) Validation team has checked the revised PDD and found that PP has now consistently incorporated the all the input parameters in section B.5 of the PDD and rate of service tax and source document for service tax are now appropriately incorporated in the revised PDD. Same is acceptable to the validation team as it is Directorate of Service Tax, Department of Revenue, Ministry of Finance. Thus, this point of CAR is closed.

b) Validation team has checked the revised PDD and found that Equity IRR of WTG-1 and WTG-2 has been corrected and it is consistent with the IRR sheets. Same is acceptable to the validation team. Thus, this point of CAR is closed.

Thus, CAR 8 is closed.



Close out by Lead Assessor	06/02/2014
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<b>Date:</b>	<b>21/02/2013</b>	<b>Raised by:</b>	Dr. Shilpy Gupta & Mr. Manoj Srivastava
<b>Type of Finding</b>	<b>CAR</b>	<b>S. No. of Finding</b>	9
		Reference	VVS

**Details of the Finding:**

21/02/2013

1. The PDD is not transparent on the apportioning procedures to be adopted in the project activity in arriving at the EG<sub>y</sub> if any and if the billing/JMR cycle is not matching with monitoring period.
2. Accuracy class of the meters mentioned in section B.7.1 of the PDD is 0.5s however during the site visit it was found that the accuracy class of the meters are 0.2s. PP to provide justification for the same.
3. PP needs to elaborate the detail about the data storage and archiving policy in section B.7.1.

**Project Participant Response**

19/03/2013

1. The section B.7.1 has been modified & updated as per the methodology AMS I.D.
2. The accuracy class has been corrected from 0.5 to 0.2 throughout the PDD
3. The section B.7.1 has been updated as per the applicable methodology AMS I.D

**Documents/ information provided by the Project Participant:**

PP needs to provide list of documents

**Reasoning for acceptance or non-acceptance:**

29/03/2013

- 1) Apportioning procedures is not included in the revised PDD.
- 2) In Revised PDD many places accuracy class is mentioned as 0.5 and in many places in the PDD, accuracy class is mentioned as 0.2. PP to clarify.
- 3) PP has not mentioned the detail about data storages and data archiving.

CAR is open

**Project Participant Response**

02/08/2013

Apportioning procedures is now included in the revised PDD ,version 3.0 dated 02/08/2013

Accuracy class of the meters has been revised to 0.2.

Data storage and data archiving is now mentioned in the revised PDD version 3.0 dated 02/08/2013.





<b>Documents/ information provided by the Project Participant:</b>	02/08/2013
Revised PDD version 3.0 dated 02/08/2013	
<b>Reasoning for acceptance or non-acceptance:</b>	14/08/2013
<p>1) Validation team checked the apportioning procedures mentioned in the revised PDD and found that GETCO is apportioning the electricity and issue a share certificate for all the WTGs and same has been used for emission reduction calculation. PP and O&amp;M contractor are not involved in the process. Further, PP has mentioned the procedures for apportioning in the PDD. Same is acceptable to the validation team and this point of the CAR is closed.</p> <p>2) Validation team has checked the revised PDD and found that PP has now consistently incorporated the accuracy class of the meters i.e. 0.2s and same was observed during site visit. Same is acceptable to the validation team and this point of the CAR is closed.</p> <p>3) Validation team has checked the revised PDD and found that PP has now consistently incorporated data storage and data archiving. Data will be archived for a period of two years beyond crediting period or last issuance whichever is later. Same is acceptable to the validation team and this point of the CAR is closed.</p> <p>Thus, CAR 9 is closed.</p>	
<b>Close out by Lead Assessor</b>	14/08/2013

Date:	21/02/2013	Raised by:		Dr. Shilpy Gupta & Mr. Manoj Srivastava	
Type of Finding	CAR	S. No. of Finding	10	Reference	VVS
Details of the Finding:			21/02/2013		
PP needs to provide the response of the Comments received during the Global Stakeholder Consultation Process as follows-					
Compilation of submitted inputs:					
1. Please explain location selection criteria					
2. Does project owner had any kind of wind based energy business experience?					
3. How many skilled/unskilled people from surrounding area were employed at this project during commissioning and operation as mentioned in social well being section?					
4. List of stakeholders and minutes of stakeholder meeting is not attached with PDD.					
5. What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?					
6. What is Complain redress policy of company?					
Submitted by: Gujarat Forum on CDM					
Project Participant Response			19/03/2013		



1. Bhagwati Spherocast consulted Suzlon energy limited for the selection of area for their wind project. Suzlon team has suggested the area in Maliya Miyana for the first phase of the project i.e. 1.5 MW and Jamanawada (changed at a later stage) to Adodar for their second wind project. The Suggestion by Suzlon team for the said capacity was based on the best wind site with the parameters like wind speed, wind park design. The decision was inclusive of the consideration to avoid & minimize the negative impact such as electrocution of birds. Suzlon was aware of the fact that both the project areas are the hotspot of migratory birds, so the grid design & pattern was planned & developed in such a way so there should not be any negative impact on biodiversity & bird species due to the grid of Wind farm
2. Bhagwati Spherocast has planned to install the wind mill as a CDM initiative and the company has passed board resolution to install the wind mill on 28/4/2009. The company doesn't have prior experience.
3. At the time of implementation of the project activity, Suzlon Energy limited have employed 20 skilled people in the first year and acknowledged to the PP that there will be an addition in recruitment of 100 people in the coming years for operation & maintenance and monitoring of wind project
4. The stakeholder meeting along with the attendance sheet has been enclosed with the PDD. Please refer to the folder "other Documents" in dropbox account.
5. The negative impact of the project activity has already mentioned in point 1 of CAR 10 & CAR13
6. Redressal Policy -Bhagwati Spherocast Limited : The company have made a separate Quality cell & redressal policy for filing all complains & grievances. The cell work to solve all the cases and complaints within a month of lodged of complain & consistently take initiatives for customer satisfaction. During the year 2010-2011, 25 complaints were received, which were redressed to the satisfaction of the complainants. There were no pending complaints as at the year-end.
7. For Suzlon Redressal Policy, Please refer page no 19, 50, 56, 59, 60 of [http://www.suzlon.com/images/investor\\_annual\\_result/12\\_13AnnualReport1011.pdf](http://www.suzlon.com/images/investor_annual_result/12_13AnnualReport1011.pdf)

**Documents/ information provided by the Project Participant:****Reasoning for acceptance or non-acceptance:**

29/03/2013

1. PP has explained the justification of the location for both Maliya Miyana as well as for Adhodar. During discussion with PP, validation team confirmed that Suzlon proposes the said locations as Suzlon already established the required infrastructure for the power distribution and proper monitoring. Thus, selection criteria for proposed project is acceptable to the validation team. Thus, this point of the CAR is closed.
2. Bhagwati Spherocast Private Limited has installed this project considering CDM incentive.
3. PP needs to provide the supporting document for the increase of employment from 22 to 100 to the skilled/unskilled people from the surrounding area during commissioning and operation of the WTG.



4. List of stakeholders' attended the meeting and Minutes of meetings of the stakeholder is verified by the Assessment Team and found acceptable. Thus, same has been acceptable to the validation team. Thus, this point of the CAR is closed.
5. Being a renewable energy project, there is no negative impact of the project activity. Same is also evident from the guidelines stipulated by Ministry of Environment and Forest which mentioned that wind project doesn't require any Environment Impact Assessment..
6. PP needs to provide supporting documents for the redressal policy for Bhagwati Spherocast Limited.
7. PP has mentioned the redressal policy of Suzlon. Suzlon is an ISO 9001:2008, ISO 14001:2004 and OHSAS, 18001:2007 certified company and have a structured redressal policy. As per Clause 47(f) of the Listing Agreement with stock exchanges, the Company has designated a separate email id (investors@suzlon.com) exclusively for redressal of investors' complaints. Thus, same has been acceptable to the validation team. Thus, this point of the CAR is closed.

Hence CAR is not closed

**Project Participant Response**

02/08/2013

3. Supporting document for the increase of employment from 22 to 100 to the skilled/unskilled people from the surrounding area during commissioning and operation of the WTG is provided.

6. PP has provided the supporting documents for the redressal policy as well as the proof for no pending complainants for Bhagwati Spherocast Limited is provided.

**Documents/ information provided by the Project Participant:**

02/08/2013

1. Revised PDD version 3.0 dated 02/08/2013

2. Redressal policy as well as the proof for no pending complainants for Bhagwati Spherocast Limited.

3. Supporting document for the increase of employment.

**Reasoning for acceptance or non-acceptance**

11/11/2013

6) PP has revised the PDD and incorporated corrections.

This CAR has been reopened due to ITR comments:

2) PP is requested to clarify whether they have prior experience in WTG

3) It is not clear how 100 people are employed for 2 WTGs and please provide the supporting documents. PP needs to provide the response of the Comments received during the Global Stakeholder Consultation Process.

5) PP is requested to clarify the negative environmental condition of area upon project.



6) Complaint redress policy of company is not clear.

Further, the WTGs were part of other project 'Captive Wind Bundle Project'. which was webhosted on 28/04/2011 by Perry Johnson Registrars Carbon Emissions Services. During webhosting of previous PDD, the project was received following comments. PP is requested to justify the same.

Comment by Babloo:

1. The PP states that they have considered 80% accelerated depreciation. However the PDD is silent on the tax shielding as a result from accelerated depreciation.
2. PPs cleverly do not consider the accounting tax offsetting in their companies while calculating the IRR. This is evident from the recently registered projects and those requesting registration.
3. The DOE is therefore requested to critically analyze how the accelerated depreciation benefit has been taken into account and confirm the accounting of the cash inflows as a result of the negative tax liability in the initial years. DOE should not be misguided by the financial presented by the PP or consultant which are custom made for CDM purposes and not the actual financial considered at the investment decision. Note that considering cash inflows results in an increase in the IRR making wind projects a profitable venture.
4. Please also check the offer from WTG supplier and Purchase Order while validating the PLF. It may be so that the third party report which is made after investment decision making - indicates a lower PLF. The PLF seems to be very low. Also check the tariff order.
5. Benchmark: No details are provided on the beta estimation. Is the beta levered or unlevered and what is the reason?? How is the beta appropriate for irr chosen?
6. Stakeholder consultation: No details provided on which all stakeholders attended the meeting.
7. Benchmark: The benchmark is too high. Even after considering CDM benefits the IRR will not cross the benchmark. Then WHY did the PP go ahead with this non-profitable venture?? This clearly indicates the benchmark is made high just to prove additionality and is not the real benchmark expected by the PP.
8. Why has the PP considered Reliance Infrastructure Ltd for beta determination when Reliance Infrastructure Ltd. has many other businesses other than pure power generation? How come the risk profile of Reliance Infrastructure Ltd match with the project activity which involves wind electricity generation?
9. What is the vintage considered for beta determination? Is considering only one year appropriate?
10. Why tax computations for beta are only considered for one year?? What is the basis for considering a particular vintage for the market returns, beta estimation and risk



free returns?

11. Why the particular index is considered for calculating the market returns? DOE to evaluate whether the PP has made any other investments considering the same index. Only because a particular index results in a higher benchmark??

12. Project cost seems to be very high. Are the quotations real or fabricated?

13. Are REC benefits being claimed? How will the DOE ensure that the PP does not claim REC benefits during project operation?

DOE to submit a negative opinion in case the IRR does not cross the benchmark even after considering CDM benefits as it clearly indicates the projects unviability in any case. Why would any one invest in a loss making venture?

And if the PP can still go ahead with the project - it indicates that the benchmark is fabricated and is not considered by the PP while making the investment decision!! DOE to validate this critically!! How are the investment decisions really made???

DOE to check if the financials correctly apply the 10 year tax holiday - i.e. not liable for taxes for 10 years from the initial 15 years.

#### Comments by Mahesh Pandya

1. If Suzlon is going to operate WEG on behalf of proponents, any agreement has been done for that?
2. In case of failure of project or any other accident, who would be responsible for it? Suzlon or proponents?
3. What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?
4. Does project owner had any kind of wind based energy business experience?
5. How many skilled/unskilled people from surrounding area were employed at this project during commissioning and operation as mentioned in social well being section?
6. List of stakeholders and minutes of stakeholder meeting is not attached with PDD.
7. Stakeholder consultation section is not clear in PDD.

Comments by zhong zhou li

It is evident from the PDD that the values are consistent and it is definitely forged and cooked up values to show a non CDM project as a CDM project. What is this? 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. After careful study of PDD it is found that DPR/FR is in different versions made and submitted with different purposes to different agencies which is totally unacceptable, illegal and unethical. PP/Consultant may show some undertaking letter from bank manager to DoE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DoE. 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. In this particular project there is clear cut evidence that DPR/FR values are changed/ fabricated mischievously and intentionally. This 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. 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. This project is a fabricated and fake CDM project and must be rejected by the DOE right away. DOE should not support this kind of projects otherwise CDM EB should suspend this DOE for at least one year.

**Project Participant Response**

05/02/2014

- 2) There are two WTGs installed long time back and these WTGs are not part of this project activity and nor these were part of any other CDM project.
- 3) No of people employed due to this project activity has erroneously mentioned. Local manpower has been employed during erection and operation of the wind power plant. A declaration is submitted in order to substantiate the no. of skilled/unskilled employed from the surrounding area.
- 5) There is no negative environmental condition of area upon project as the area was barren land prior to development of wind farm.
- 6) Complaints at site can be made to Central Monitoring Station of the O&M contractor which will be forwarded to the PP. Any person can send complaint to the telefax and email mentioned on the website of PP i.e. www.bhagwati.com . All complaints received through O&M contractor will be addressed and appropriate actions, as applicable will be taken.

Response of comment by Babloo:

- 1) Accelerated depreciation has been considered as per the IT act, Govt of India. Same has been now mentioned in final PDD and submitted to DOE for assessment.
- 2) Tax offsetting has been considered as per the IT act, Govt of India available during respective decision making. Same has been now mentioned in final PDD and submitted to DOE for assessment.





- 3) IRR sheet for both the WTGs are submitted to DOE for assessment. Tax saving due to IT depreciation has been added in cash inflow.
- 4) PP has considered the PLF from the letter issued by loan issuing bank. Thus, same is in line with the Annex 11 of EB 48.
- 5) Equity IRR is used as financial indicator and default return on equity (after considering inflation) has been used as benchmark. Since in earlier webhosted PDD project IRR has been used and WACC was used as benchmark so additionality has been demonstrated using project IRR and WACC also in response to CAR 15. In calculation of WACC, default return on equity (after considering inflation) is used and beta is not used.
- 6) Details of the stakeholder attended in the meeting are now submitted to DOE for assessment.
- 7) Default return on equity (after considering inflation) as per EB 62 Annex 5 is used as benchmark which is appropriate for the project activity. CDM revenue will reduce viability gap, however since CER prices are market driven, the extent to which they reduce viability gap also varies.
- 8) Equity IRR is used as financial indicator and default return on equity (after considering inflation) has been used as benchmark. Since in earlier webhosted PDD project IRR has been used and WACC was used as benchmark so additionality has been demonstrated using project IRR and WACC also in response to CAR 15. In calculation of WACC, default return on equity (after considering inflation) is used and beta is not used.
- 9) Equity IRR is used as financial indicator and default return on equity (after considering inflation) has been used as benchmark. Since in earlier webhosted PDD project IRR has been used and WACC was used as benchmark so additionality has been demonstrated using project IRR and WACC also in response to CAR 15. In calculation of WACC, default return on equity (after considering inflation) is used and beta is not used.
- 10) Equity IRR is used as financial indicator and default return on equity (after considering inflation) has been used as benchmark. Since in earlier webhosted PDD project IRR has been used and WACC was used as benchmark so additionality has been demonstrated using project IRR and WACC also in response to CAR 15. In calculation of WACC, default return on equity (after considering inflation) is used and beta is not used.
- 11) Equity IRR is used as financial indicator and default return on equity (after considering inflation) has been used as benchmark. Since in earlier webhosted PDD project IRR has been used and WACC was used as benchmark so additionality has been demonstrated using project IRR and WACC also in response to CAR 15. In calculation of WACC, default return on equity (after considering inflation) is used and market return is not calculated.
- 12) Project costs for both the WTGs were considered from offer letters submitted by Suzlon which was available during decision making. Same has been submitted to DOE for assessment.
- 13) As this is a wheeling project, thus, REC benefit is not applicable to this project activity.

Tax holiday has been considered in line with IT act, Govt of India. Revised IRR sheets are submitted to DOE for assessment. Equity IRR for both WTGs is less than the benchmark and project is additional.

Response of comments by Mahesh Pandya

- 1) Yes. Suzlon will operate the WTGs on behalf of Suzlon. A O&M agreement has been signed with Suzlon for the same. All the agreement are submitted to DOE for assessment.
- 2) Suzlon is having a contractual agreement for this project. They are already having established infrastructure for O&M. Thus, in case of failure of project or any other accident, Suzlon would be responsible.
- 3) There is no negative environmental condition of area upon project as the area was barren land prior to development of wind farm.
- 4) There are two WTGs installed long time back and these WTGs are not part of this project activity and nor these were part of any other CDM project.
- 5) Local manpower has been employed during erection and operation of the wind power plant. A declaration is submitted in order to substantiate the no. of skilled/unskilled employed from the surrounding area.
- 6) List of stakeholders and minutes of stakeholder meeting are submitted to DOE for assessment.
- 7) Stakeholders' consultation section has now elaborated for better clarity.

Response of comments by zhong zhou li:

Detailed Project Report or feasibility report was not prepared for this project. For financial feasibility, offer letters from Suzlon and prevailing date from GREC and CERC were considered. All the data with appropriate source are submitted to DOE for assessment.

**Documents/ information provided by the Project Participant:**

- 1) Revised PDD
- 2) Revised IRR sheets
- 3) Letter from Bank of Baroda
- 4) O&M agreement with Suzlon

**Reasoning for acceptance or non-acceptance:**

07/02/2014

- 2) Validation team has found that PP has installed two WTGs long time back and these WTGs are not part of current project activity and same are not part of any other CDM



project. Validation team has checked the same and found correct. Thus, this point of the CAR is closed.

3) Validation team has checked the declaration letter submitted by the PP mentioning that 2 skilled and 2 unskilled people have been employed in the project site due to commissioning and operation of this project activity from surrounding area. Hence response provided by the PP is accepted by the validation team. Hence, this point of the CAR is closed.

5) PP has clarified that area was a barren land prior to development of wind farm and there are no impacts of any negative environmental condition of area upon project. Thus, same has been acceptable to the validation team. Thus, this point of the CAR is closed.

6) PP has clarified that any complaints at site can be made to Central Monitoring Station of the O&M contractor which will be forwarded to the PP. Any person can send complaint to the telefax and email mentioned on the website of PP i.e. [www.bhagwati.com](http://www.bhagwati.com). All complaints received through O&M contractor will be addressed and appropriate actions, as applicable will be taken. Validation team checked the complaint redresses mechanism adopted by the PP. Same is acceptable to the validation team.

#### Assessment of Comment by Babloo:

1) Validation team has checked the source of accelerated depreciation and found that PP has considered the same from the IT act, Govt of India. Further, same has been mentioned in the revised PDD. Further, validation team has also checked the calculation of tax shielding in IRR calculations and found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

2) Validation team has checked the tax offsetting in line with IT act, Govt of India available during respective decision making of the WTGs. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

3) Validation team has checked the calculation of the accelerated depreciation, tax shield and cash inflows for both the WTGs and found that PP has considered the input data for accelerated depreciation from IT act, Govt of India. Tax savings due to accelerated depreciation has been added to cash inflows which is correct. Further, PP has appropriately calculated the cash inflows for this project for both the WTGs. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

4) In this project, PLF has not considered from offer letter or from the purchase order of the WTGs. PP has checked the PLF from the letter issued by loan issuing bank i.e. Bank of India. Same is acceptable to the validation team as it is in line with Annex 11 of EB 48. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

5) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and beta is not used. Thus, this point of the CAR is closed.



- 6) Validation team has checked the details of the stakeholders' meeting (invitation letters, attendance sheet and Minuets of the Meeting) and found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 7) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark which is appropriate. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and beta is not used. Thus, this point of the CAR is closed
- 8) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and beta is not used. Thus, this point of the CAR is closed
- 9) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and beta is not used. Thus, this point of the CAR is closed.
- 10) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and beta is not used. Thus, this point of the CAR is closed
- 11) PP has used Equity IRR is used as financial indicator and default return on equity (after considering inflation) as benchmark. The two WTGs were earlier part of another bundled project in which project IRR has been used and WACC was used as benchmark. PP has provided project IRR calculations and WACC calculations as a part of response of CAR 15. All the input parameters in equity IRR and project IRR are same. The detailed assessment of project IRR and WACC is provided in CAR 15 and project is additional even if project IRR and WACC are considered. In calculation of WACC, PP has used default return on equity (after considering inflation) and market return is not calculated. Thus, this point of the CAR is closed
- 12) Validation team has checked the offer letters submitted by the WTG supplier which was available during decision making and found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 13) The project activity is a wheeling project. REC benefits are only available for the project which are exporting electricity to grid only. There is no REC involved in this project



activity.

Validation team has checked the benchmark calculation and the IRR sheets. Further, validation team has also checked the sensitivity analysis and the comparisons of input parameters with the actual case for the project and found that project is additional. The equity IRR for both WTGs is less than the benchmark and project is additional. The tax holiday is computed correctly as per Section 80 IA of Income Tax Act.

#### Assessment of comments by Mahesh Pandya

- 1) PP has signed an operation and maintenance agreement for both the WTGs. Validation team has checked the same and found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 2) Validation team has accepted the justification by the PP and found appropriate as PP has signed an operation and maintenance agreement for both the WTGs and Suzlon has already made all the necessary infrastructure for power evacuation. Thus, in case of failure of project or any other accident, Suzlon would be responsible. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 3) As the project has been installed on a barren land and during operation of the project no fossil fuel will be consumed. Thus, validation team accepted that there is no negative environmental condition of area upon project. Thus, same is accepted by the assessment team.
- 4) During site visit and discussion with the PP, validation team found that these is the first wind project by the PP. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 5) Validation team has checked the declaration letter submitted by the PP mentioning that 2 skilled and 2 unskilled people have been employed in the project site due to commissioning of this project activity. Hence response provided by the PP is accepted by the validation team. Hence, this point of the CAR is closed.
- 6) Validation team has checked the list of stakeholders presented the meeting and minutes of stakeholder meeting and found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.
- 7) Validation team has checked the revised PDD and found that Stakeholders' consultation details are mentioned adequately and found to be correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

#### Assessment of comments by zhong zhou li

In this project activity, PP has considered project cost and O&M cost from offer letters by Suzlon, PLF from letter from loan issuing bank and rate of taxes from Income tax of India. All the values are applicable at the time of decision making. PP has not prepared any Detailed Project Report or feasibility report for 2 WTGs. Thus, response by PP is



found correct. Thus, same is acceptable to the validation team. Thus, this point of the CAR is closed.

Thus the CAR 10 is closed

<b>Close out by Lead Assessor</b>	07/02/2014
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<u>Date:</u>	<b>21/02/2013</b>	<u>Raised by:</u>	Dr. Shilpy Gupta & Mr. Manoj Srivastava		
<u>Type of Finding</u>	<b>CAR</b>	<u>S. No. of Finding</u>	11	Reference	VVS
<b>Details of the Finding:</b>		21/02/2013			
The details on baseline scenario prior to project activity has not mentioned in the section A.3 of the PDD as required by the “Guidelines for completing the PDD for SSC CDM project activities”.					
Type, Sectoral Scope, Description on environmentally safe and sound technology(ies) included & Description on know-how transferred to the host Party, is not mentioned in section A.3 of the PDD as required by the “Guidelines for completing the PDD for SSC CDM project activities”.					
<b>Project Participant Response</b>			19/03/2013		
The details on baseline scenario prior to project activity have been included in the section A.3 of the PDD as required by the “Guidelines for completing the PDD for SSC CDM project activities”.					
Type, Sectoral Scope, Description on environmentally safe and sound technology (ies) are also being included along with the know-how transferred to the host Party as per “Guidelines for completing the PDD for SSC CDM project activities”.					
<b>Documents/ information provided by the Project Participant:</b>					
Revised PDD					
<b>Reasoning for acceptance or non-acceptance:</b>			29/03/2013		
PP has not included the detail of the baseline scenario prior to project activity as required by Guidelines for completing the PDD for SSC CDM project activities”.					
PP has not included detail about the environment safe and sound technology along with know-how transferred to the host party as per the “Guidelines for completing the PDD for SSC CDM project activities”.					
CAR is open					
<b>Project Participant Response</b>			02/08/2013		





Details included on the baseline scenario prior to project activity as required by Guidelines for completing the PDD for SSC CDM project activities" in the revised PDD version 3.0 dated 02/08/2013	
Details included on the environment safe and sound technology along with know-how transferred to the host party as per the "Guidelines for completing the PDD for SSC CDM project activities" in the revised PDD version 3.0 dated 02/08/2013	
<b>Documents/ information provided by the Project Participant:</b>	02/08/2013
Revised PDD version 3.0 dated 02/08/2013	
<b>Reasoning for acceptance or non-acceptance:</b>	
Validation team has checked the revised PDD and found that PP has included the detail of the baseline scenario prior to project activity as required by Guidelines for completing the PDD for SSC CDM project activities" in the revised PDD version 3.0 dated 02/08/2013. The wheeled electricity displaces grid electricity and thus project replaces grid based electricity which is produced mostly by fossil fuels. Thus, same is found to be correct and hence accepted by the validation team.	
Validation team has checked the revised PDD and found that PP has included detail about the environment safe and sound technology along with know-how transferred to the host party as per the "Guidelines for completing the PDD for SSC CDM project activities" in the revised PDD version 3.0 dated 02/08/2013, The technology is environmentally safe and sound there is no technology transfer in the project activity, hence accepted.	
CAR 11 is closed.	
<b>Close out by Lead Assessor</b>	08/08/2013

<u>Date:</u>	21/02/2013	<u>Raised by:</u>		Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<u>Type of Finding</u>	CAR	<u>S. No. of Finding</u>	12	Reference	VVS
<u>Details of the Finding:</u>		21/02/2013			
Table 2 for Para 2 “Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A2) applies is included in Table 2” listed in applicability condition Sr. No. 2.of the methodology AMS-I.D. version 17 is not provided in the PDD.					
<u>Project Participant Response</u>			19/03/2013		
The table 2 has been included in Section B.2 in applicability condition no.2.of Applicable Conditions.					
<u>Documents/ information provided by the Project Participant:</u>					
Revised PDD					



<b>Reasoning for acceptance or non-acceptance:</b>	29/03/2013
Validation team checked the revised PDD and found that Table -2 has been included in section B.2 in the applicability condition number -2 of the PDD and found that project activity is satisfying the applicability condition for wheeling project (Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)) as mentioned in AMS.I.D ver 17. The same is checked from wheeling agreement. It is a Greenfield project and it is not a retrofit or upgradation project. Thus, same is acceptable to the validation team. Hence CAR 12 is closed.	
<b>Close out by Lead Assessor</b>	29/03/2013

<u>Date:</u>	21/02/2013	<u>Raised by:</u>	Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<u>Type of Finding</u>	CAR	<u>S. No. of Finding</u>	13	Reference VVS
<b>Details of the Finding:</b>		21/02/2013		
As per para 63 of PS, PP is requested to provide an analysis of the environmental impacts of the proposed CDM project activity.				
<b>Project Participant Response</b>		21/02/2013		
As per Para 63 of PS, the project activity has undergone study of environment impact conducted by Suzlon team during the selection of the project area to avoid any negative impacts caused by project activity. They were aware of the fact that the project area i.e. wind farm is hotspot of migratory birds. Thus specific measures such as grid design & pattern during development has been taken into consideration to avoid electrocution of birds due to the wind farm. This would help & lead to non-disruption for the route of migratory birds. Thus the wind speed and direction should not suffer because of any impact.				
<b>Documents/ information provided by the Project Participant:</b>				
Revised PDD				
<b>Reasoning for acceptance or non-acceptance:</b>		29/03/2013		
Response from PP is acceptable and Suzlon has taken adequate measures. Validation team checked the notification stipulated by Ministry of Environment and Forest, Govt of India regarding EIA and found that as per the notification from MoEF dated September 14, 2006 and its amendment notification S.O.-3067(E) dated 1/12/2009, EIA is not required for wind energy projects. Response by PP accepted by validation team as same is incorporated in PDD in adequate manner. Thus, CAR 13 is closed.				
<b>Close out by Lead Assessor</b>		29/03/2013		

<b>Date:</b>	11/11/2013	<b>Raised by:</b>	Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<b>Type of Finding</b>	CAR	<b>S. No. of Finding</b>	14	<b>Reference</b> VVS
<b>Details of the Finding:</b>	11/11/2013			



During ITR process, following issues have been raised -

1. Complete copy of wheeling agreement for second WTG is not provided. Please provide agreement with Torrent power for second WTG
2. Source of electricity of plant where electricity is wheeled is not mentioned.
3. Justification to applicability criteria number 3 (para 3) is not correct.
4. It is mentioned in section B.5 that baseline is based on hypothetical situation without the provincial and sectoral policies being in place which is not clear.
5. As per host country approval, project activity is implemented in phase I and phase II, however the same is not transparently mentioned in PDD.
6. Complete details of monitoring frequency are not mentioned in section B 7.1 of PDD. Data archiving is not mentioned correctly in section B 7.1 of PDD
7. Version of Tool to calculate the emission factor of the electricity system is not latest.

**Project Participant Response**

05/02/2014

- 1) Complete copy of wheeling agreement for 2<sup>nd</sup> WTG has now submitted.
- 2) The generated electricity from the project WTG would be wheeled to its foundry unit in Ahmadabad for captive consumption. Same is now incorporated in the revised PDD. Electricity bills are provided. The wheeled electricity displaces grid electricity.
- 3) Justification of criteria no 3 has been revised for better clarity.
- 4) Details have been corrected in section B.5. Baseline of the project activity has been identified based on the AMS I.D. Thus, further identification of alternative is not required.
- 5) Step wise implementation of the project activity is now incorporated in the project description in section A.2.
- 6) Complete details of monitoring frequency is now incorporated in section B.7.1 of the PDD. Further, data archiving is also revised now.
- 7) Version of Tool to calculate the emission factor of the electricity system has been revised to version 4.



<b>Documents/ information provided by the Project Participant:</b>	
1) Wheeling agreement for WTG-2 2) Electricity bills	
<b>Reasoning for acceptance or non-acceptance:</b>	07/02/2014
<p>1) Complete copy of wheeling agreement for WTG 2 has been provided. Validation team has checked the wheeling agreement with GETCO dated 27/12/2010 and found correct. Thus, this point of CAR is closed.</p> <p>2) Validation team checked the revised PDD and found that PP has now incorporated that the generated electricity from the project WTG would be wheeled to its industrial unit in Ahmadabad for captive consumption. The wheeled electricity displaces grid electricity which is also seen from electricity bills. Same is found correct. Thus, this point of CAR is closed.</p> <p>3) Validation team has checked the revised PDD and found that PP has mentioned that the project activity comprises of installation of two WTGs at sites where Project Proponent does not own any other renewable energy plant prior to the implementation of the project activity. Hence, the project activity qualifies as a Greenfield project activity. same is acceptable to the validation team. Thus, this point of CAR is closed.</p> <p>4) As per para 11 of the approved baseline and monitoring methodology “AMS I.D”, “Grid connected renewable electricity generation”, version 17 of 03/06/2011, the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would be generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid Since the approved methodology, that is applied, prescribes the baseline scenario, no further analysis on alternative identification is required, according to paragraph 115 of the VVS version 5.0. Same is acceptable to the validation team. Thus, this point of CAR is closed.</p> <p>5) Validation team has checked the section A.1 of the revised PDD and found that PP has now mentioned that the phase-wise implementation of the project activity. Same is acceptable to the validation team. Thus, this point of CAR is closed.</p> <p>6) Validation team has checked the revised PDD and found that parameters will be continuously monitored, hourly measured and monthly recorded. Same is acceptable to the validation team. Data archiving is also corrected. Thus, this point of CAR is closed.</p> <p>7) Validation team has checked the revised PDD and found that PP has revised version of Tool to calculate the emission factor of the electricity system to version 4 in the PDD. Same is found to be correct. Thus, this point of CAR is closed.</p> <p>Thus CAR 14 is closed</p>	
<b>Close out by Lead Assessor</b>	07/02/2014



<b>Date:</b>	11/11/2013	<b>Raised by:</b>	Dr. Shilpy Gupta & Mr. Manoj Srivastava	
<b>Type of Finding</b>	CAR	<b>S. No. of Finding</b>	15	<b>Reference</b> VVS
<b>Details of the Finding:</b>		11/11/2013		
1. Both the WTG were webhosted earlier in a bundled project activity. In that PDD, PP has considered WACC as the benchmark and Project IRR as the financial indicator. However, in this project activity, PP has considered Return on Equity and as the benchmark and Equity IRR as the financial indicator. Thus, PP is requested to justify the same.				
2. Project cost for WTG-2 is not matching with the project cost mentioned in earlier webhosted PDD.				
3. Expected electricity generations from both the WTG are not matching with the earlier webhosted PDD.				

<b>Project Participant Response</b>	05/02/2014
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1) During decision making, both Project IRR and Equity IRR have been calculated to get a fair idea of the project's financial feasibility. In the earlier webhosted PDD, Project IRR and WACC has been opted for the demonstration of the additionality of the project. Earlier PDD was webhosted as a bundled project activity with some other project developers. However, after webhosting, the project bundled has been disintegrated and the project had not move ahead. Thus, a new project has been formed with these two WTGs. In this project activity to demonstration of additionality, post tax equity IRR has been considered as the financial indicator and default value of Return on Equity in line with Annex 5 of EB 62 has been considered as the benchmark. Further, to justify and compare the project additionality, post tax Project IRR and WACC have also been calculated considering the default value of Return on Equity in line with Annex 5 of EB 62 and with the same input parameters and submitted to DOE. The results of the same are mentioned below:

WTG No	Project IRR without CDM	Benchmark (WACC)
WTG-1 (VM-02)	9.08%	11.72%
WTG-2 (ADO-30)	9.29%	11.79%

Results of the sensitivity analysis of the project IRRs are also tabulated below:

Sensitivity Analysis – Post tax- Project IRR without CDM				
Parameter	WTG-1 (VM-02)		WTG-2 (ADO-30)	
	-10%	+10%	-10%	+10%
PLF	7.44%	11.21%	7.00%	11.21%
O&M	9.41%	8.76%	9.61%	8.95%
Project Cost	11.07%	7.91%	11.06%	7.45%
Tariff Rate	7.44%	11.21%	7.00%	11.21%



From the above consideration, it is observed that the calculated post tax Project IRR is still below the benchmark (WACC). Thus, this project is additional in both the case.

2) Project cost has been considered from offer letter and same has been submitted to DOE for assessment. The equity IRR is less than the benchmark even at -10% reduction in project cost. Moreover even if actual project cost of WTG 2 is considered which is INR 83.7 million as per purchase orders then also equity IRR is less than the benchmark.

3) In this project activity, generation has been calculated from the PLF value mentioned in letter from the loan issuing bank. Same is in line with the Annex 11 of EB 48. PLF mentioned for both WTGs in earlier webhosted PDD was less than the PLF considered in this project activity.

**Documents/ information provided by the Project Participant:**

- 1) Project IRR and WACC calculation for WTG-1
- 2) Project IRR and WACC calculation for WTG-2

**Reasoning for acceptance or non-acceptance:**

07/02/2014

As both the WTGs were webhosted in another bundled CDM project activity and the financial indicator was project IRR. Thus, to compare with the present scenario, PP has also calculated Project IRR for both the WTGs again as per the validated input parameters. The project IRR calculations and the benchmark analysis calculations were also checked by the assessment team on excel spread sheet and verified. Calculated Project IRR (9.08% for WTG-1 and 9.29% for WTG-2) of both the WTGs without CDM revenue are also less than WACC benchmark. Thus, validation team has concluded that the project is additional even if project IRR and WACC is considered. Further, all the input parameters such as project cost, O&M expanses, rate of electricity tariff, rate of MAT, rate of depreciation, rate of IT depreciation, wheeling charge, debt:equity ratio are same in calculation of project IRR and equity IRR. Validation team has also checked the sensitivity of project IRR and found that project IRR for WTG-1 and WTG-2 are less than the respective benchmark.

2) Validation team has checked the offer letters for WTG-2 and found that PP has appropriately considered the project cost from the offer letter dated 26/07/2010. Considering the same, project cost for WTG-s is INR 98.42 Million. Same is also confirmed by the financial expert associated with this project. Further, in the earlier webhosted PDD, PP has considered the project cost for WTG-2 was INR 96 Million which is 2.52% less than the cost considered in this project. Further, in this project, PP has considered  $\pm 10\%$  sensitivity analysis which shows that project is still additional considering -10% of project cost. Moreover even if actual project cost of WTG 2 is considered which is INR 83.7 million as per purchase orders then also equity IRR is less than the benchmark. Thus, this point of the CAR is closed.

3) Validation team checked the PLF value considered in the project and found that PP has considered the PLF from the letter issued by the loan issuing bank. Considered the same PLF for both the WTG is 23.85%. However, validation team checked the earlier webhosted PDD and found that PP has mentioned 2947.03 MWh of electricity would be generated from WTG-1 and 3088.4 MWh of electricity would be generated for WTG-2. Which amounts to PLF of 22.43% and 23.05% for WTG 1 and WTG 2 respectively which are less than the PLF value considered in the letter from loan issuing bank. Thus, validation team concluded that in this project activity, PP has conservatively considered PLF value for both the WTG.

Thus, CAR 15 is closed.

**Close out by Lead Assessor**

07/02/2014



## APPENDIX - 2:

### QUALIFICATION CERTIFICATE

We declare that Mr./Ms Manoj K. Srivastava  
is qualified as Validator/Verifier  
for the Technical Area 1.2

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1

He is also qualified as Team Leader for validation/verification functions

\_\_\_\_\_  
CEO





## QUALIFICATION CERTIFICATE

We declare that Mr./Ms Sandip Saha  
is qualified as Validator/Verifier  
for the Technical Area 1.2

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1

CEO



## QUALIFICATION CERTIFICATE

We declare that Mr./Ms Shilpy Gupta  
is qualified as Validator/Verifier  
for the Technical Area 1.2

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1

She is also qualified as Team Leader for validation/verification functions

\_\_\_\_\_  
CEO



## QUALIFICATION CERTIFICATE

We declare that Mr./Ms

Rajeev Singhal

is qualified as

Financial expert

for the Technical Area

-

Technical Area	Technical Area Description	Sectoral Scope
-	-	-

CEO



## QUALIFICATION CERTIFICATE

We declare that Mr./Ms Naresh Badhwar  
is qualified as Validator/Verifier, Technical Reviewer  
for the Technical Area 1.2, 13.1

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1
13.1	Waste handling and disposal	13

He is also qualified as Team Leader for validation/verification functions

\_\_\_\_\_  
CEO