



VALIDATION REPORT

ROHA DYECHM PVT. LTD.

**SOLAR PV POWER PROJECT BY ROHA
DYECHM PVT. LTD.
(EKIESL.CDM.AUG-11-02)**

REPORT No.
CDM.12.VAL.056



Date of this issue: 24/12/2012	KBS Ref. No.: CDM.12.VAL.056	
Organisational Unit:	Client:	
Climate Change Division, KBS	Roha Dyechem Pvt. Ltd.	
Project Design Document		
First PDD:	Final PDD:	
Version: 01	Version: 04	
Date: 06/07/2012	Date: 23/12/2012	
Summary of validation:		
Roha Dyechem Pvt. Ltd. has commissioned KBS to perform the validation of the proposed CDM project activity:		
Project Title:	Solar PV power project by Roha Dyechem Pvt. Ltd. (EKIESL.CDM.Aug-11-02)	
Methodology Applied:	ACM0002 version 13.0.0	
Sectoral Scopes:	TA1.2 (Energy Industries: Renewable Sources)	
Validity of methodology/ies (for RfR):	Valid from 11/05/2012	
The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the latest version of CDM Validation and Verification Standard, Project Cycle Procedure and Project Standard, Kyoto Protocol requirements and UNFCCC rules. The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., on site visit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and CDM decisions. The review of the project design documentation and the subsequent follow-up interviews have provided KBS with sufficient evidence to determine the project's fulfillment of all the stated criteria. In our opinion, the project meets all applicable UNFCCC requirements for the CDM. - ☒ Will be recommended to the CDM Executive Board with a request for registration - ☐ Is not recommended for registration		
Validation Status:	☐ Findings not closed	
Project type: Large Scale	☐ Draft validation report	
Subject: CDM Validation (VVS Track)	☒ Final validation report	
Validation Team:	Document Distribution	
Team Leader: Ashok Kumar Gautam Validator: Neeraj Joshi Local Expert: Ashok Kumar Gautam Technical Expert (TA 01.2): Neeraj Joshi Financial Expert: Abhishek Mahawar	☒ No Distribution without permission from the Client	
Technical Review Team:	Manager T&C	
Technical Reviewer: Kaviraj Singh Date: 25/12/2012 Technical Expert: Kaviraj Singh	Name: Kaviraj Singh Date: 25/12/2012	
Authorized by:	☐ Limited Distribution	
Name: Kaushal Goyal, Managing Director Date: 25/12/2012	☐ Unrestricted Distribution	
Rev Number:	Date:	
0	17/12/2012	
1	24/12/2012	

Abbreviations

ABT	Availability Based Tariff
ACM	Approved Consolidated Methodology for Large scale
AOA	Articles of Association
BE	Baseline Emissions
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CM	Combined Margin
CER	Certified Emission Reduction
CERC	Central Electricity Regulatory Commission
CL	Clarification request
DOE	Designated Operational Entity
DNA	Designated National Authority
DPR	Detailed Project Report
DR	Document Review
EB	Executive Board
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
GEDA	Gujarat Energy Development Agency
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Limited
GUVN	Gujarat UrjaVikas Nigam Limited
GHG	Greenhouse gas(es)
GSC	Global Stakeholder Consultation
HCA	Host Country Approval
ICICI	Industrial Credit And Investment Corporation Of India
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation
LE	Leakage Emissions
LoA	Letter of Approval/Authorization
Ltd.	Limited
MOP	Meeting of Parties
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
NEWNE	North-East-Western-North Eastern
OM	Operating Margin
PDD	Project Design Document
PE	Project Emissions
PLF	Plant Load Factor
PLR	Prime Lending Rate
PP	Project Participant
PPA	Power Purchase Agreement
PS	Project Standard



PCP	Project Cycle Procedure
Pvt.	Private
QA/QC	Quality Assurance/Quality Control
RDPL	Roha Dyechem Pvt. Ltd.
	Roha Dyechem Private Limited
RfR	Request for Registration
SBI	State Bank Of India
SD	Sustainable Development
T&C	Technical & Certification
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation & Verification Standard
WACC	Weighted Average Cost of Capital

Units/conversions

1 Crore	10,000,000 (10 million)
1 Lac	100,000 (0.1 million)
1 MW	1,000 kW



Table of Content

1. Validation Opinion	6
2. Introduction	7
2.1 Objective	7
2.2 Scope	7
3. Methodology	8
3.1 Review of CDM-PDD and Additional Documentation	8
3.2 Site Visit	8
3.3 Major Milestones in validation	8
3.4 Use of the Validation Protocol	9
3.5 Findings	9
3.6 Internal Quality Control	10
4. Validation Findings	11
4.1 Approval	11
4.2 Authorization	12
4.3 Sustainable Development	12
4.4 Modalities of Communication	12
4.5 Project Design Document	13
4.6 Project Description	14
4.7 Baseline and monitoring methodology	16
4.8 Additionality	22
4.9 Application of Monitoring Methodology and Monitoring Plan	34
4.10 Environmental Impacts	35
4.11 Local Stakeholder Comments	35
4.12 Project design of small-scale CDM project activities	36
5. Global Stakeholder Consultation Process	37
5.1 Description of how and when the PDD was made publicly available	37
5.2 Compilation of all comments received	37
5.3 Explanation of how comments have been taken into account	41
6. References	43

Annexes:

Annex 1: Validation Protocol	46
Annex 2: Detailed Findings	84
Annex 3: Certificate of Competence	103



1. Validation Opinion

KBS Certification Services Pvt. Ltd. has been contracted by Roha Dyechem Pvt. Ltd. to perform a validation of the project:

Project title: Solar PV power project by Roha Dyechem Pvt. Ltd. (EKIESL.CDM.Aug-11-02)

Host Party: India

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

The proposed CDM project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change. In our opinion, the project meets all relevant UNFCCC, CDM criteria and all relevant host country criteria.

The project correctly applies methodology ACM0002 version 13.0.0. It is demonstrated that the project is not a likely baseline scenario. The emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project are estimated to be 254,570 tCO₂e over a 7 year renewable crediting period during 30/12/2012 to 29/12/2019, averaging 36,367 tCO₂e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

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

Authorized Signatory

Signature:

Name: Kaushal Goyal

Place: Faridabad, Haryana, India

Date: 25/12/2012



2. Introduction

2.1 Objective

Roha Dyechem Private Limited has commissioned KBS to perform the validation of the project: Solar PV power project by Roha Dyechem Pvt. Ltd. (EKIESL.CDM.Aug-11-02) with regard to the relevant requirements for Clean Development Mechanism (CDM) project activities.

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

In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. The validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reduction (CER).

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

2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. KBS has employed a rule-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project document version 01 dated 06/07/2012 and intermediate versions and version 04 dated 23/12/2012 (final version). The assessment is performed by a validation team using a validation protocol attached as Annex 1. The cross checks between information provided in the PDD and information from sources other than those used, if available, the validation team's sectoral or local expertise and, if necessary, independent background investigations.

3.2 Site Visit

The site visit was undertaken by Ashok Kumar Gautam (Team Leader & Local Expert) and Neeraj Joshi (Validator and Technical Expert) and details are mentioned below:

Location:	Village: Charanka (or charnaka), Taluka:Santalpur, District:Patan	
Dates:	17/11/2012 & 18/11/2012	
Key points discussed:	Name of person, interviewed	Designation, Organization
Seriousness of CDM consideration, Technical detail of project activity, , Public funding /diversion of ODA	- SrikishanBhutada - M P Dhruv	- Renewable Energy Head, Roha Dyechem Pvt. Ltd. - President, Roha Dyechem Pvt. Ltd.
Implementation of project activity,	SrikishanBhutada	Renewable Energy Head, Roha Dyechem Pvt. Ltd.
Statutory clearances, sustainability criteria,	SrikishanBhutada	Renewable Energy Head, Roha Dyechem Pvt. Ltd.
Local stakeholders meeting process	- SrikishanBhutada - Representatives from nearby village	- Renewable Energy Head, Roha Dyechem Pvt. Ltd - Local stakeholders
Baseline determination	Sabyasachi Sam	Senior Consultant, First Climate
Additionality, monitoring plan	- Sabyasachi Sam - M P Dhruv	- Senior Consultant, First Climate - President, Roha Dyechem Pvt. Ltd.
Emission reduction used for calculation baseline, project activity and leakage	Sabyasachi Sam	Senior Consultant, First Climate

3.3 Major Milestones in validation

Validation Contract	08/06/2012
Publication of PDD	15/08/2012
On site visit/validation	17/11/2012 to 18/11/2012
Draft Validation Report	17/12/2012
Final Validation Report	24/12/2012

3.4 Use of the Validation Protocol

The validation protocol used for the assessment is designed in accordance with the latest version of Validation and Verification Standard. It serves the following purposes:

- Reference to available information relating to projects or technologies similar to the proposed project activity under validation;
- Review, based on the approved methodology being applied, of the appropriateness of formulae and accuracy of calculations.
- Organises, details and clarifies the requirements the project is expected to meet; and
- Documents both how a particular requirement has been validated and the result of the validation (reporting).

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of Verification (MoV)	Validation Assessment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CL) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this project is attached as Annex 1 to this report

3.5 Findings

As an outcome of the validation process, the validation team can raise different types of findings

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

Where a non-conformance arises the validator shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:

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

A Forward Action Request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.



Corrective Action Requests and Clarification Requests are raised in the draft validation protocol and detailed in a separate finding document (Annex 2). In this document, the project participant is given the opportunity to “resolve” the outstanding CARs and respond to CLs and FARs.

3.6 Internal Quality Control

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

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

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

4. Validation Findings

4.1 Approval

Discussion:

The project is a unilateral CDM project which involves Roha Dyechem Pvt. Ltd. (RDPL) and First Climate (India) Private Limited from host party, India. KBS confirms that it has entered into a contractual agreement with Roha Dyechem Pvt. Ltd. for performing the validation.

The host party for the project activity is India, which has ratified the Kyoto Protocol on 26/08/2002. The Designated National Authority (DNA) is the Ministry of Environment & Forest (MOEF) of India. The DNA of India has issued a Letter of approval, Letter No: 4/17/2012-CCC (LoA) dated 12/12/2012/5/ for the project activity.

The information of the DNA has been confirmed by the validation team against the relevant information on the UNFCCC CDM website/6/.

The table given below summarizes the project participant(s) and party (ies) involved.

Project participant	- Roha Dyechem Pvt. Ltd. - First Climate (India) Private Limited
Parties Involved	India (host)
Project activity title	Solar PV power project by Roha Dyechem Pvt. Ltd. (EKIESL.CDM.Aug-11-02)
Approval	Yes
LoA received	Yes
Date of LoA	12/12/2012
Reference of document	Ref. No: 4/17/2012-CCC
LoA received from	Project Participant
Validation of authenticity	The validation team has reviewed other LoA issued by the DNA of India and confirmed the authenticity of signature and content of the LoA.
Validity of LoA	Yes

The validation team confirms that host LoA refers to the precise proposed project title as in the PDD. The letter of approval was also found to be unconditional with respect to para 39 to 42 of VVS version 02.0/7/.

Validation of ODA:

The validation team did not find any evidence that this project activity can be seen as a diversion of ODA funds. It is also confirmed by the interview with Mr. Srikishan Bhutada, Renewable Energy Head, RDPL during the site visit interview and documents provided by PP about no ODA diversion from Annex-I party. The project is funded by equity capital brought in by the Project Participant and loan from local commercial bank/8/. Hence, the validation team concludes that there is no ODA funding or diversion of ODA involved in the project activity.

Findings:

CAR #01(a), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The assessment team confirms that:

- The letter of approval from respective DNA have been issued
- The letter is received directly from the PP.
- The letters of approval is authentic and the same has been confirmed by checking the other LoAs issued from DNA. The assessment team does not doubt the authenticity of the LoA.
- The letter of approval confirms that, the Parties involved are a Party to the Kyoto Protocol, Participation is voluntary, the proposed project activity contributes to the sustainable development of

the host country and it refers the precise proposed project activity title as mentioned in the final PDD being submitted for registration.

- (e) The letters of approval are unconditional to Paragraphs 39 (a) to (d) of VVS version 02.0/7/.
- (f) The letters of approval is issued by DNA of India and is valid for the proposed project activity under validation.

4.2 Authorization

Discussion:

As stated above, the project participant for the project activity involves Roha Dyechem Pvt. Ltd. (RDPL) and First Climate (India) Private Limited from host party, India has been approved in the letter of approval of participation issued on 12/12/2012 by host party India/5/. The host party for the project activity is India and has ratified the Kyoto Protocol on 26th August 2002. The Ministry of Environment & Forests (MOEF) is the DNA of India. This has been confirmed from the link:

(<http://maindb.unfccc.int/public/country.pl?country=IN>)/6/

The assessment team states that the participation of the project participants has been approved by a Party to the Kyoto Protocol. This situation has been checked against the letters to approve participation from Indian DNA.

Findings:

CAR #01(a), please refer Annex 1 of this report where the same is discussed completely

Opinion:

Thus the assessment team confirms the following:

- a) The participation of project participations has been approved/authorized by the DNA of host party
- b) The participation has been confirmed in the LoA itself, which contains the name of the respective PP to which it is issued.
- c) The authenticity of the LoA from Host Party (India)/5/ is confirmed as described in section 4.1 above.

The validation of approval and authorisation has been done on the basis of para 46-48 of VVS version 02.0 and validation team confirms that the proposed project activity meets the requirement of para 38 and para 45 of VVS version 02.0/7/.

4.3 Sustainable Development

Discussion:

The host party's DNA has confirmed the contribution of the project to the sustainable development in India according to the Letter of Approval for the Project/5/, which has been checked by the validation team to be valid (refer section 4.1 of this validation report). Also, during interview with PP it has been confirmed that permanent job opportunity is created by the Project Activity. On the other hand, many local people were engaged temporarily in the project construction and increased their income. Also the project has provided clean energy locally and displaces pollution generated in fossil fuel fired power plants by using solar energy.

In conclusion, the validation team is of the opinion that the project activity is in full compliance with all applicable requirements for the CDM leading to emission reductions additional to what would have otherwise occurred, providing for reliable and measurable emission reductions with sustainable development in India through improvement of environmental condition, reduction of air pollutants.

Opinion:

The validation of contribution to sustainable development has been done on the basis of para 51 of VVS version 02.0 and validation team confirms that the proposed project activity meets the requirement of para 50 of VVS version 02.0/7/.

4.4 Modalities of Communication

Discussion:

The modalities of communication (MoC) for the given project activity, signed on 14/11/2012/10/ was received from the PP. As required in procedures for Modalities of Communication between project participants and the Executive Board, the validation team has verified that the name of Mr. Shrikisan Bhutada (Primary authorised signatory) from Roha Dyechem Pvt. Ltd. and Mr. Subhendu Biswas from First Climate (India) Pvt.



Ltd. are the authorised signatory for future communications related to corresponding scope of authority with UNFCCC.

The signatures and details of Mr. Bhutada was verified from the notarized passport and notarized Company declaration confirming his signature and identity while the signature and details of Mr. Biswas was verified from his passport. The MoC is found to be filled correctly. The assessment team can confirm that the signatory and contact details on the MoC are authorized and credible; the MoC is prepared using latest version of F-CDM-MOC form and "Procedures for modalities of communications between project participants and the Executive Board" EB 45, annex 59, version 01.0/9/. The MOC is correctly filled including the Modalities of Communication statement (Annex-I) and Statement of Agreement (Section-3).

The validation team confirms that the signatory and contact details on the MoC are authorized and credible and it fulfill the requirement of para 54-56 of VVS version 02.0/7/.

Findings:

CAR #01(b), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The assessment team confirms that:

- a) The MoC is correctly filled using the latest F-CDM-MOC form version 02.1
- b) The MoC is directly received from the PP
- c) The specimen signature, designation and name of the authorised personnel is cross checked from the letter issued and provided by PP confirming the specimen signature, name and designation of authorised personnel.
- d) The modalities of communication statement is correctly filled and including the specimen signature of authorised signatory

4.5 Project Design Document**Discussion:**

The validation team validated that the project Design Document is based on the currently valid F-CDM- PDD template, version 04.1/11/ and is correctly applied in accordance with the applicable guidance document "Guidelines for Completing the Project Design Document Form (F-CDM- PDD)", version 01.0/12/.

Findings:

CAR #02(a, b, c, d, e), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The assessment team confirms that the PDD is being prepared in accordance with the latest valid template and guidance from the CDM Executive Board available on the UNFCCC CDM website.

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

PDD Section no.	Brief description of the changes
-----------------	----------------------------------

Key revisions between the final PDD against the first version published for the international stakeholder consultation	
A.1	Nature of pre-project scenario and confirmation on baseline scenario is included Brief plan on sustainable development of society is included
A.2.4	Geo coordinates of project activity changed from N 23.90 and E 71.19 to N 23.90 and E 71.20
A.3	Technical details of the project activity has been included Flow diagram of project activity is included Know how of technology transfer is included
B.1	The version and title of tools applied in particular Tool for demonstration and assessment of additionality and Tool to calculate emission factor of an electricity system were made consistent
B.2	All applicability conditions of ACM0002 version 13 is included
B.5	Cost of Debt and Inflation rate has been revised in accordance with decision date of project activity Reference of input parameters is included Sensitivity analysis on O&M is included Common Practice analysis is demonstrated as per the latest guidance Latest version of prior consideration guidelines are included
B.6.1	Emission factor calculations included as per Tool to calculate emission factor of an electricity system, version 02.2.1
B.6.2	Latest version of CEA database used to calculate OM, BM & CM The approach to calculate baseline emissions is made consistent as per the methodology expressions
B.6.4 and others	The ERs have changed in the final PDD as a response to the finding (CAR#13).
B.7.1	The accuracy and class of export-import meter is included as per monitoring plan Monitoring Frequency and Data archiving procedures for EGfacility is included Details of back up metering system which will be used in case of failure of Main metering system is included
C.2.2	The starting date of crediting period corrected to future and realistic date
E.2	Date of stakeholder meeting is included

4.6 Project Description

Discussion:

The project activity is installation of photovoltaic solar power plant of 25 MW capacity in the state of Gujarat in India. The project activity will feed electricity to the electricity grid. The project activity will utilize polycrystalline silicon PV technology and central inverters for its 25 MW solar PV plant. The photovoltaic system will mainly consists of PV modules, module mounting structures, inverters, regulators and monitoring devices. The proposed project activity will implement array of thin film modules. The generated electricity will be stepped up to 66 kV by 27.5 MVA rating transformer and exported to the regional grid (Northern Eastern Western North Eastern grid, NEWNE) which is dominated by fossil fuel based power plants. The project activity would generate electricity from solar energy and export to the NEWNE grid. The technical details of the major equipment of the proposed solar PV system are summarized below:

	25 MW
--	-------

PV Module	Nexpower (NT/AX series) of 145W ($\pm 5\%$)
No. of Modules	172728
Modules per string	upto 27
Module Mounting Structure	6400
Inverters	Satcon- PowerGate Plus 500KW
No. of Inverters	50

The project activity is a large scale project with a total capacity of 25 MW. The capacity of the power plant was confirmed from the "Project Allotment Letter" issued by Energy & Petrochemicals department, Government of Gujarat/13/. The technical details as mentioned in the PDD of the equipment were validated from the Technical brochures of the equipment provided by the technology suppliers/14/. The same was further cross checked with the contract agreement signed between the project participant and the technology supplier (Wipro EcoEnergy)/15/ and certificate of commissioning issued by Gujarat Energy Development Agency (GEDA)/16/. It was also confirmed by the assessment team that the project is a green-field activity. It was confirmed during site visit/17/ by the assessment team that the location of the project site is correctly identified in the PDD as mentioned below.

	Decimal Degrees/18/	Degree Minutes Seconds
Latitude	23.90° N	23° 53' 59" N
Longitude	71.20° E	71° 12' 01" E

The project activity was commissioned on 04/03/2012 as per commissioning certificate issued by GEDA/16/ and was found operating during site visit. The onsite visit revealed that the electricity after invertors flows through 11 kV bus and gets stepped up to 66 kV at on site 66/11 kV switch/transformer yard and is evacuated to grid through two parallel lines of 66 kV. The commercial metering system consists of two point metering: one check meter (installed by PP) and one tri-vector ABT energy meter (installed by GETCO) on one 66 kV evacuation line. The electricity generated by the project activity is supplied to the GETCO grid which is interconnected with NEWNE grid of India. The electricity evacuation to grid and metering and billing system are as per PPA with Gujarat Urja Vikas Nigam Ltd. (GUVNL)/20/.

The estimated average net electricity supplied for first renewable crediting period works out as 38,161 MWh/3/ per year. The project will result in annual average emission reductions of 36,367 tCO₂e/3/ for the first crediting period. The emission reduction calculation has been done as per the applied methodology ACM0002 version13.0.0/21/.

During the process of validation, the assessment team confirmed the capacity, unique identification of the project activity, estimated power generation, arrangement for evacuation of electricity generated, technical specifications, date of commissioning, arrangements for O&M and necessary clearances for setting the project activity.

The description of the project activity has been confirmed through the site survey, interview and review of documents. The technical specifications of the project provided in the PDD were confirmed during the site survey and also from the technical specifications provided by the equipment supplier. The PP had also presented a project allotment letter from the government of Gujarat/13/, commissioning certificate/16/ and power purchase agreement (PPA)/20/.

The assessment team confirms that the project description included in the PDD is accurate and complete. This description provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation.

Findings:

CAR #02(a, b, c, d, e), CAR #03(a, b, c), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The assessment team confirms that

- The project description as mentioned in PDD/1/ is validated by reviewing the detailed project report/19/, sanction letter from Govt. of Gujarat/13/ and Commissioning certificate issued by GEDA/16/. The same has been also confirmed during site visit by interviewing the technical personnel involved in project activity.
- Based on discussion above the assessment team confirms that project description provided in PDD is complete and accurate, hence complies with para 64 of VVS version 02.0/7/.
- The validation team has conducted site visit for the proposed project activity on 17/11/2012 & 18/11/2012..

4.7 Baseline and monitoring methodology

4.7.1 General requirement

Discussion:

The baseline and monitoring methodology used for the project activity is ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", Version 13.0.0./21/

In accordance with the applied methodology, the following tools are used in the PDD:

- "Tool to calculate the emission factor for an electricity system" (Version 02.2.1)/23/
- "Tool for the demonstration and assessment of additionality" (Version 06.1.0) /24/

Findings:

CAR #04, please refer Annex 1 of this report where the same is discussed completely

Opinion:

- The validation team is of opinion that applied approved baseline and monitoring methodology is approved by UNFCCC and PDD has used the version of the applied baseline and monitoring methodology that is valid at the time of request for registration.
- The PDD has mentioned and correctly applied the tools and guidance relevant as per applied methodology.

4.7.2 Applicability of selected methodology to the project activity

Discussion:

The project activity is a Greenfield project and the installed rated capacity of the installed power plant is 25MW. The selected baseline methodology, ACM0002, version 13.0.0/21/, is applicable to the power plant as the project generates renewable electricity by solar photo voltaic technology and it displaces the grid electricity.

The latest version of the applied methodology is Version 13.0.0 which was active from 11th May 2012. The assessment team has confirmed from the UNFCCC website:

(<http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT>) that the applied version (13.0.0) of the methodology is valid for the project type at the time of completion of validation. The discussion on the compliance of the project activity with the applicability conditions of the methodology is performed below:

Applicability Criteria	Justification	Validation Remarks
<i>"This methodology is applicable to grid-connected renewable power generation project activities that</i> <i>(a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant);</i> <i>(b) involve a capacity addition;</i> <i>(c) involve a retrofit of (an) existing plant(s); or</i> <i>(d) involve a replacement of (an)</i>	<u>Applicable and fulfilled:</u> The proposed project activity is a grid-connected solar power generation project (i.e. renewable power generation project activity) and installs a new power plant at the project site where no renewable power plant was operated prior to the implementation of the project activity (i.e. greenfield plant). Hence, the project category	The assessment team validated during site visit that there was no prior operations on the. It was also confirmed from the equipment purchase agreements/15/ that the project does not involve any retrofitting of the existing equipment and cross-checked from the commissioning certificate for the project activity issued by GEDA/16/. Hence, project

existing plant(s)."	qualifies under clause (a) of the above paragraph in the methodology describing the category of projects applicable.	activity meets the criterion.
<i>The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;</i>	<u>Applicable and fulfilled</u> The proposed project activity involves installation of a greenfield solar photovoltaic power plant utilizing solar energy to generate electricity and supply to the regional grid (NEWNE grid). Hence, the project activity satisfied this criterion.	The assessment team validated during site visit that the project activity is installation of new solar power plant with PV technology.
<i>In the case of capacity additions, retrofits or replacements (except for capacity addition projects for which the electricity generation of the existing power plant(s) or unit(s) is not affected: the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity addition or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;</i>	<u>Not applicable</u> The proposed project activity being a greenfield grid connected solar power project this clause is not applicable.	The assessment team validated during site visit that the project activity is a Greenfield project and it is not a capacity expansion, retrofit or replacement. The same was confirmed by checking the PPA with GUVNL/20/ and commissioning certificate issued by GEDA/16/.
<i>In case of hydro power plants, at least one of the following conditions must apply:</i> • <i>The project activity is implemented in an existing reservoir, with no change in the volume of any of the reservoir; or</i> • <i>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/m² after the implementation of the project activity; or</i> • <i>The project activity results in new reservoirs and the power density of the power plant, as per definitions</i>	<u>Not applicable</u> The proposed project activity is not a hydro power project. Hence, this clause is not applicable.	The project activity is not a hydro power plant. This was checked during site visit.



given in the Project Emissions section, is greater than 4 W/m² after the implementation of the project activity.		
In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m² all the following conditions must apply: • The power density calculated for the entire project activity using equation 5 is greater than 4 W/m²; • Multiple reservoirs and hydro power plants located at the same river and where are designed together to function as an integrated project¹ that collectively constitute the generation capacity of the combined power plant; • Water flow between multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; • Total installed capacity of the power units, which are driven using water from the reservoirs with power density lower than 4 W/m², is lower than 15 MW; • Total installed capacity of the power units, which are driven using water from reservoirs with power density lower than 4 W/m², is less than 10% of the total installed capacity of the project activity from multiple reservoirs.	<u>Not applicable</u> The proposed project activity is not a hydro power project. Hence, this clause is not applicable.	The project activity is not a hydro power plant. This was checked during site visit.
Exclusion Criteria: The methodology is not applicable to the following:		
Project activities that involve	<u>Not applicable</u>	There was no historical activity

¹ This requirement can be demonstrated, for example: (i) by the fact that water flow from upstream power units spilling directly to the downstream reservoir; or (ii) through the analysis of the water balance. Water balance is the mass balance of water fed to power units, with all possible combinations of multiple reservoirs and without the construction of reservoirs. The purpose of such water balance is to demonstrate the requirement of specific combination of multiple reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum three years prior to implementation of CDM project activity.

<i>switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site;</i>	The proposed project activity does not involve switching from fossil fuels to renewable energy sources. Hence, this clause is not applicable.	on the project site prior to implementation of the project activity. Hence, the condition does not restrict the eligibility of the project activity.
<i>Biomass fired power plants;</i>	<u>Not applicable</u> The proposed project activity is not a biomass fired power plant. Hence, this clause is not applicable.	The project activity is not a biomass power plant. This was checked during site visit. Hence, the condition does not restrict the eligibility of the project activity.
<i>Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the reservoir is less than 4 W/m².</i>	<u>Not applicable</u> The proposed project activity is not a hydro power project. Hence, this clause is not applicable.	The project activity is not a hydro power plant. This was checked during site visit. Hence, the condition does not restrict the eligibility of the project activity.
<i>In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".</i>	<u>Not applicable</u> The proposed project activity is a greenfield grid connected solar power project that does not involve any retrofit, replacement or capacity addition. Hence this clause is not applicable.	The assessment team validated during site visit that the project activity is a Greenfield project and it is not a capacity expansion, retrofit or replacement. The same was confirmed by checking the PPA with GUVNL/20/ and commissioning certificate issued by GEDA/16/.

The assessment team checked during site visit that the only source of emissions during project operations will be import of electricity from the grid and these emissions are accounted in the methodology. Hence, the assessment team concluded that there are no project emissions which are not accounted by the methodology.

On the basis of above discussion, the assessment team has concluded that the project activity meets all the applicability requirements of the applied methodology and the associated components. It also confirmed that the implementation of the project activity will not result in emissions which are not covered in the applied methodology.

Opinion:

The validation team confirms that

- The applicability conditions of the selected approved methodology ACM0002 version 13.0.0 /21/ is appropriately described in PDD.
- The validation of each relevant applicability conditions is described above
- The applied methodology is applicable in the context of the proposed CDM project activity.

4.7.3 Project boundary

Discussion:

Project activity boundary is delineated as physical and geographical boundary of the on grid Solar PV power plant and is adequately described in the PDD in Section B.3/1/.The project's system boundary includes solar PV panels, inverters and transformers and connected grid.



Being a Greenfield project, there was no facility or equipment operational on the project site prior to the implementation of project activity. This was confirmed from the project allotment letter from Energy & Petrochemicals Department, Government of Gujarat/13/.

The project boundary is clearly depicted in section B.3 of the PDD and duly verified by the assessors during the site visit/17/ and was found appropriate. The assessment team also confirmed during site visit that all GHG sources required by the methodology have been included within the project boundary. During site visit, the project was found commissioned and operating/16/. The project generates electricity by utilizing solar radiation and will supply to the local grid (interconnected with NEWNE grid) at 132 kV level through on station 66/ 11 kV switch yard. The onsite visit and the lay out plan and single line diagram conforms the project boundary as described in the PDD were being installed on-site and the implementation of the project activity was being done as per the description presented in the PDD.

All emission sources related to the baseline scenario, project scenario and leakage are clearly identified and described in a complete and transparent manner. The PDD correctly described the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity.

Opinion:

- a) It is confirmed by the validation team that the project boundary and the selected sources of emissions are complete and justified for the project activity.
- b) There was no source of GHG emissions on site which has the potential to contribute more than 1% of the overall expected annual emission reductions of the project activity and which is not covered by the methodology.
- c) The validation team confirms that PDD has correctly identified and included all the sources of GHG emission relevant to project activity as per methodology ACM0002 version 13.0.0/21/.

4.7.4 Baseline identification

Discussion:

The applied methodology ACM0002 Version 13.0.0 in the context of the green-field grid connected solar power plant with PV technology, which is the project activity, defines the baseline scenario as under;

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the, "Tool to calculate the emission factor for an electricity system".

Since, the proposed project is located in the state of Gujarat which is connected to the NEWNE Electricity Grid; accordingly NEWNE Grid has been identified as the relevant grid to which the project activity ultimately despatches electricity via local grid (Gujarat Energy Transmission Corporation Limited -GETCO). It was confirmed by cross-checking the Power Purchase Agreement (PPA) signed with Gujarat Urja Vikas Nigam Limited (GUVNL)//20/. The emission factor i.e., combined margin, as required by the applied methodology, has been determined using CO2 Baseline Database version 07/25/ issued by Central Electricity Authority (CEA) which is nodal agency on this matter in the host Party.

Further, the identified baseline is consistent with the outcome of section B.5 of the PDD, where continuation of current situation has been established as the realistic and credible baseline scenario in the absence of the proposed CDM project activity.

Opinion:

The assessment team confirms that

- a) All the assumptions and data used by the project participants are 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;
- c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- d) Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;

- e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.
- f) The applied methodology ACM0002 Version 13.0.0/21/ in the context of the green-field grid connected solar power plant with PV technology, which is the proposed project activity, defines a standardized baseline scenario.

4.7.5 Algorithms and/or formulae used to determine emission reductions

Discussion:

According to the approved methodology ACM0002 (Version 13.0.0) Emission Reductions are calculated as

$$ER_y = BE_y - PE_y$$

Where:

ER_y	Emission reductions in year y (t CO ₂ e)
BE_y	Baseline Emissions in year y (t CO ₂)
PE_y	Project Emissions in year y (t CO ₂ e)

Baseline Emissions

Baseline emissions only include CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced by the project activity due to displacement of grid-electricity is calculated as the product of the Baseline Emissions Factor ($EF_{grid,CM,y}$ in tCO₂/MWh) calculated as described below, times the electricity supplied by the VPSPPL project activity to the grid ($EGPJ,y$ in MWh/yr), over the crediting period.

$$BE_y = EGPJ,y \times EF_{grid,CM,y}$$

Where:

BE_y	Baseline emissions in year y (tCO ₂)
$EGPJ,y$	Quantity of net electricity generation that is produced and fed into the grid as a result of implementation of the CDM project activity in year y (MWh)
$EF_{grid,CM,y}$	Combined margin CO ₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO ₂ /MWh)/23/

It was confirmed by the assessment team that the project activity is grid connected green-field renewable (solar) energy generation project at a site where no renewable power plant was operated prior to implementation of the project activity.

Determination of Grid emission factor ($EF_{grid,CM,y}$)

The baseline grid emission factor is calculated in accordance with the "Tool to calculate the emission factor of an electricity system", (version 02.2.1)/23/. The following steps were performed to validate the grid emission factor:

- As the project is located in state of Gujarat which is connected to the NEWNE Electricity Grid, the assessment team confirmed that the NEWNE Grid is the relevant "project electricity system".
- It was confirmed by the assessment team that only grid power plants have been included in the calculation for the operating margin and build margin emission factor. This is in accordance with the Option I of step 2 of the latest "Tool to calculate the emission factor for an electricity system"
- It has been validated by the assessment team from the CO₂ Baseline Database version 07 /25/ issued by Central Electricity Authority (CEA) that the percentage of total grid generation by low cost/must run plants (17.7% on the basis of average of five most recent years) for the NEWNE Regional Grid is less than 50 % of the total generation. Hence, the Simple OM method can be used to calculate the Operating Margin Emission factor for the project activity.
- The Central Electricity Authority, Ministry of Power, Government of India has published a database of Carbon Dioxide Emission from the power sector in India based on detailed authenticated information obtained from all operating power stations in the country. The Operating Margin and build Margin in the CEA database is calculated using the guidelines provided by the UNFCCC in the "Tool to calculate the emission factor for an electricity system" version 02.2.1/23/



- The Operating Margin used in the PDD is a 3-year generation-weighted average Emission Factor. The generation data of the year 2008-09, 2009-10 and 2010-11 were used in the calculation. It was confirmed by the assessment team that it was based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation. The validated value of OM is 0.984 t CO₂/MWh (refer worksheet "CER Estimation Sheet")/3/.
- In accordance with the applied tool, the build margin is calculated in the CEA database as the average emissions intensity of the 20% most recent capacity additions in the grid based on net generation. The validated value of BM is 0.859 t CO₂/MWh(refer worksheet "CER Estimation Sheet")/3/.
- According to the "Tool to calculate the emission factor of an electricity system", (version 02.2.1), the weights for OM and BM for calculating combined margin are 0.75 and 0.25 respectively for solar power generation. The validated value of CM is 0.953 tCO₂/MWh(refer worksheet "CER Estimation Sheet")/3/.

The assessment team confirms that the result of the database is also consistent with the latest version (Version 02.2.1) of the tool to calculate emission factor for an electricity system, since the only change is the optional inclusion of off-grid power plants for calculation of emission factor.

Project Emissions

The project activity involves harnessing solar energy and its conversion to electricity. Hence according to ACM0002 version 13.0.0, there will be no project emissions in the project activity. It was also confirmed that there will be no use of fossil fuel on site.

Leakage

As per ACM0002 version 13.0.0/21/, no leakage has been considered for the project activity..

EGPJ,y is estimated as 39,321 MWh/year (for 1st year) considering 18%PLF,checked and confirmed by the validation team. There would not be any project emission due to the project activity as confirmed during the site visit. Leakage is also not applicable as per the applied methodology ACM0002, version 13.0.0). Thus, the emission reduction is direct multiplication of quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh) (export-import figure) and the grid emission factor.

The Project Participant has sourced the net annual average electricity generation of 39,321MWh (for first operational year) at Plant Load Factor (PLF) of 18.00% with 1% generation degradation from 2nd year onwards as provided in the third party engineering study report prepared by Mitcon Consultancy & Engineering Services Ltd./19/, the third party engineering consultant for the project engaged by the PP.

The PLF for the Solar PV plant as provided by the supplier of the power plant, Wipro EcoEnergy Limited, one of the EPC contractors for the project, is in the range of 17-19% vide O&M contract/15/ between the two parties. The supplier also confirms the PLF degradation of 1% from 2nd year onwards.

The PLF estimated by the PP from the third party engineering report is in accordance with the Para 3 (b), Annex 11 of the report of 48th meeting of the CDM EB "Guidelines for the reporting and validation of plant load factors" version 01 /22/. Thus, the PLF chosen in the calculations of baseline emissions and project financial indicators are in accordance with the specific guidelines provided by the CDM EB and hence considered appropriate.

The emissions reductions due to the project activity were estimated ex-ante to be 37,473 tCO₂e for the first year in the PDD and calculated as follows:

$$ER_y = BE_y = EGPJ,y * EF_{grid,CM,y}$$

$$= 39,321 \text{ MWh} * 0.953 \text{ tCO}_2\text{e/MWh} = 37,473 \text{ tCO}_2\text{e (rounded down value for the first year)}$$

However, the annual average GHG emission reductions over the first crediting period are estimated ex-ante as 36,367 tCO₂e considering the annual degradation of 1%. The calculation of emission reductions for the crediting period has been checked by the assessment team and found to be correct.

Findings:

CAR #08(a, b, c) and CAR#13 please refer Annex 1 of this report where the same is discussed completely

Opinion:

It is confirmed by the validation team by cross-checking the ER/3/& IRR calculation sheet/2/ against all referenced data sources and the requirements of applied methodology and methodological tools that:

- a) All data sources and assumptions used are listed and referenced in the PDD and are appropriate. Calculations are correct, applicable to the proposed CDM project activity and will result in a conservative estimation of the emission reductions;
- 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 project emissions, baseline emissions, leakage and emission reductions.
- e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD and annexure.

4.8 Additionality

The additionality of the project activity is demonstrated using the “Tool for the demonstration and assessment of additionality” Version 6.1.0/24/. It was also confirmed that the financial calculations were in accordance with the guidelines provided in “Guidelines on the assessment of investment analysis, version 05” EB 62 Annex 05, version 5/26/. The Benchmark Analysis method has been used to demonstrate the additionality and it is in conformity with above mentioned guidance.

4.8.1 Prior Consideration of the Clean Development Mechanism

Discussion:

The project developer had stated the start date of the project activity is 28/02/2011/15/ and has submitted copies of the purchase order issued to Wipro EcoEnergy for designing, erection, commissioning of 25 MW Solar PV power plant as evidence. Project developer has submitted other purchase orders issued and an examination of those orders reveal that the project developer has not undertaken any construction or any major real action on the implementation of the project activity prior to this date. Since the *real action of the activity* had begun on 28/02/2011, as per Glossary of CDM terms (Version 07)/27/, this date has been treated as the start date of the project activity. Since the real action of the project activity had begun after 02/08/2008, the project activity falls under the category of *new project activity* as per paragraph 2 of Annex 13, EB 62 read with paragraph 107 of VVS Version 02.0/7/

The assessment team has further cross checked the start date of project activity from the letter issued by Wipro EcoEnergy/28/ (EPC contractor of the project activity) which clearly outlines the major milestones between PP and Wipro and confirms the start date of the project activity as 28/02/2011 which is the signing of EPC contract between PP and Wipro EcoEnergy

The PDD was web-hosted for public comments on 15/08/2012/29/, i.e., after the start date of the project activity. Since the start date of the project activity was after 02/08/2008 and the PDD was web-hosted after the start date, as per Guidelines on the demonstration and assessment of prior consideration of the CDM, EB 62, annex 13, version 04/32/, project participant is required to notify 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 and such notification must be made within 180 days of the project activity start date. Project developer had notified UNFCCC and DNA on 04/08/2011/30/, which is within 180 days from the start date of the project activity (start date being 28/02/2011) about their intention to seek CDM status. Copies of correspondence (transmission of filled “Prior consideration of the CDM form”) with UNFCCC and DNA have been submitted to validation team. Besides, validation team also checked the UNFCCC website regarding the list of prior consideration notification and confirms that the project developer had informed UNFCCC on the said date. Moreover, the board of PP has seriously considered the CDM benefits during the Board Resolution Meeting on 21/01/2011/31/.

Findings:

CAR#05(a, b, c), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The validation team confirms that

- a) Based on document review and site visit conducted on 17/11/2012& 18/11/2012/17/, the assessment team establishes that project activity is a new project and the date of issuance of EPC for construction,

designing and commissioning i.e. 28/02/2011/15/, is considered as the earliest real action towards implementation of the project activity, which is in line with the "glossary of CDM terms" EB 70, Annex 07 version 7.0/27/.

- b) As per EB 62 Annex 13, it was verified by the DOE that the Project participant informed the DNA and UNFCCC about the commencement of the project activity within 6 months of the project start date/30/.
- c) The prior CDM consideration is duly ascertained in accordance with the para 107 of VVS version 02.0/7/, as relevant to the project activity.
- d) Hence, the validation team concluded that the CDM benefits were seriously considered by the project participant and prior actions were taken to secure CDM status parallel to the implementation of the project activity.

4.8.2 Identification of alternatives

Discussion:

The project activity is generation of renewable energy using solar PV power project and is based on the Methodology ACM0002 Version 13.0.0/21/. The methodology states,

If the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following:

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system"

The following two real and credible alternatives have been identified in the PDD:

Alternative 1: The proposed project activity without CDM: construction of a new Solar PV power plant with net installed capacity of 25 MW connected to the Grid, implemented without considering CDM revenues.

Alternative 2: Continuation of the current situation. Electricity will continue to be generated by the existing generation mix operating in the Grid.

As per para 115 of VVS version 02.0 "where the baseline scenario is prescribed in the approved methodology, no further analysis is required". Since the approved methodology ACM0002 version 13.0.0 used by the project activity prescribes the baseline scenario, no further analysis of alternatives is required for the project activity.

Opinion:

The assessment team confirms that the identified alternatives represent all the possible and credible alternatives for the project activity in accordance with the methodology ACM0002 version 13.0.0/21/. The identified alternatives are complete and appropriate in context of the project activity.

The identified alternatives comply with all applicable and enforced legislation of India.

4.8.3 Investment analysis

Discussion:

PDD demonstrates that the project would not be economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs). In order to assess the claim of the project developer that the project scenario is not economically feasible without benefits from CER sales, the validation team adopted the following strategy:

Project developer had demonstrated that the financial returns of the proposed CDM project activity would be insufficient to justify the required investment (Paragraph 117 (b) of VVS version 2.0). For demonstrating the financial unattractiveness of the project activity, project developer had chosen investment barrier and to demonstrate the investment barrier had selected benchmark analysis. Since in this case the baseline is outside the direct control of the project developer (grid connected power) and hence, the choice of the project developer is restricted to "invest or not to invest", the benchmark approach is most suited as per the latest version of Guidance 19 of Annex 5 of EB 62/26/. In the above background the validation team concludes that the additionality justification given by the project developer is in accordance with the requirements derived from the approved CDM methodology and the methodological tools referred therein as well as the guidance given by EB vide paragraphs 117-119 of VVS version 02.0/7/.

The project developer has chosen project IRR to demonstrate the additionality of the project. Considering the fact that the project is financed by a mix of debt and equity and that guidance 12 of Annex 5, EB 62/26/

permit the use of project IRR as one of the financial indicators to demonstrate additionality, project IRR has been considered as appropriate financial indicator for the project type and decision making context.

Benchmark Selection:

As per guidance 12 of Annex 5, EB 62, *"In cases where a benchmark approach is used 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 benchmarks for a project IRR."* The project developer has chosen WACC as the benchmark. WACC represents the minimum rate of return which the project should earn to merit consideration, as failure to earn the minimum rate of return is indicative of the erosion in the value of shareholders investment.

The WACC is calculated based on combination of the cost of debt and cost of equity.

Cost of Debt:

The cost of debt has been calculated based on the prevailing prime lending rate during January 2011. Prime lending rate (PLR) of State Bank of India (the largest public sector bank in the country) has been considered as the cost of debt. The PLR prevailing at the time of decision making was 12.75%/33/

The assessment team has independently checked the prevailing prime lending rates of State Bank of India, and found that the prime lending rate to be 12.75%.

Tax Rate:

In accordance with the Guidelines on Assessment on Investment Analysis EB 62 annex 5, version 05, the project activity can be developed by any entity other than the project participant, the tax rate used for computation of benchmark should also be applicable to any investor investing in power projects in India. Hence a Minimum Alternative Tax rate of 19.93%/34/ (applicable tax rate) for calculation of WACC for which project IRR benchmark is applicable has been used in line with the following provision of Indian Income Tax Act:

- Section 80 IA – Reduction in respect of profits and gains from industrial undertaking or enterprises engaged in infrastructure development etc. under which a deduction of an amount equal to 100% of the profit and gain derived from such business is allowed for any ten consecutive years out of fifteen years beginning from the year in which the undertaking or enterprise generates power or commences transmission or distribution of power. Hence in such cases while discounting a project, companies need to use the after tax cost of debt and are allowed to use Minimum Alternative Tax rate (tax rate applicable tax rate at the time of investment decision) till the repayment period of the loan for the project and thereafter corporate tax rate needs to be applied.
- Further as interest on loan is tax deductible, hence the Minimum Alternative Tax rate is used for computation of cost of Debt while calculating applicable WACC for the project activity. This is based on general accounting principle and is in accordance with the Guidelines on Assessment on Investment Analysis version 5.

Hence it is justified to use MAT rate instead of the corporate tax rate in the calculation of the WACC. The Tax rate is chosen as 19.93%/34/.

Debt:

As per power sector norms in India project proponent can avail debt typically up to 70% of total project cost and hence application of 70% value for debt component to calculate WACC is reasonable and same has been verified by validation team from the values prescribed by various regulatory commissions e.g. CERC, GERC.

Expected return of equity:

In line with paragraph 12 of EB 62 Annex 5/26/, required/expected returns on equity have been chosen as the benchmark for investment analysis. Standard market parameters are used to determine the appropriate benchmark in context of the project activity. Further, in accordance with paragraph 15 of EB 62 Annex 5, cost of equity was determined using default values in Appendix A of same guidance. Default value of expected return on equity for Energy Industries (Group I) for India is 11.75%.

Estimated Inflation Rate:

As per guidance note issued by CDM EB at its 62nd meeting (Annex 5, item 7 of Appendix A), *"In situations where an investment analysis is carried out in nominal terms, project participants 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. If this information is not available, the target inflation rate of the central bank shall be used. If this information is also not available, then the average forecasted inflation rate for the host country published by the IMF (International Monetary Fund World Economic Outlook) or the World Bank for the next five years after the start of the project activity shall be used."

Since the project IRR for the project activity has been calculated below in nominal terms, the cost of equity in real terms has been converted to nominal terms by adding the forecasted inflation rate for the next five years after the start of the project activity for India published by the IMF (International Monetary Fund World Economic Outlook) i.e. 6.91%/35/

On the basis of above parameters, the cost of equity was calculated using WACC. The value applied as cost of equity for the equity invested in the project activity is 19.48%/4/. At 70:30 Debt: Equity structure, WACC for this project activity is found to be 12.99%. Hence 12.99% is considered as benchmark/4/ for project IRR.

Input Parameter:

The total investment cost for the project activity was estimated to be 3,785.46 Million INR. The same was validated on the basis of proposals and Detailed Project Report (DPR)/19/presented during the Board meeting dated 21/01/2011/31/ in which decision to invest in the project activity was approved by the Board of Directors. The estimated total project cost (as mentioned in the DPR) was based on the proposals/36/ provided by various equipment suppliers and EPC contractor, which were duly validated by the assessment team. The actual investment cost was validated from the Loan Sanction Letter issued by ICICI Bank (ICICI) on date 31/03/2011/8/. The actual project cost, based on the actual agreements with suppliers and service providers, was mentioned to be INR 3,454.6 million in the loan sanction letter/8/. The same was further cross-checked by the Chartered Accountants certificate from G R & Associates/37/ which confirms the investment incurred towards project activity to be INR 3479.88 Million. The reduction in actual cost is therefore 8.74% from what was considered at the time of investment decision. This reduction is found reasonable by the assessment team as it depends on negotiations that management did after the investment decision was taken and reflects the reliability of the considered value. The actual reduction in the project cost is transparently and adequately covered in the sensitivity analysis as the variation is subject to 10% departure from either side and also demonstrates the breach point where IRR crosses the benchmark. Hence, the project cost was found acceptable to the assessment team.

The validation team has validated the input parameters used in investment analysis of the project activity as listed in the PDD along with input values used in spread sheet. The detailed assessment and means of validation of input parameters used are presented below:

Parameter	Value Used	Source of Value	Means of Validation
Project Life(years)	25	Detailed Project Report dated 12/01/2011/19/	The project life is based on the performance guarantee issued by the suppliers; viz. Wipro EcoEnergy provides performance warranty for 25 years/15/. This is also supported by GERC tariff order/38/. Since the operating life of the project is based on manufacturer's/supplier's estimation, this is in conformity with Annex 15, EB 50/39/. Thus the value considered by PP is correct and appropriate for the project.
Project Capacity(MW)	25	Detailed Project Report dated 12/01/2011	The project capacity has been validated from the Allotment letter dated 14/10/2010 from Energy & Petrochemicals Department, Government of Gujarat/13/. The same was further cross-checked with the Purchase order of EPC to Wipro EcoEnergy dated 28/02/2012/15/ and commissioning certificate dated 11/04/2012 issued by Gujarat Energy Development Agency/16/.
Project Cost (INR Millions)	3785.46 (INR 151.41 Million/MW)	Detailed Project Report dated 12/01/2011	Total project cost includes the cost for plant & machinery for the solar photovoltaic power plant, its engineering, procurement and construction, land and development cost, pre-operative expenses, registration



			charges and other contingency cost. The PP has considered INR 151.41 Million/ MW as the total project cost during the investment decision which was available from discussions with the supplier and DPR/19/ of the project activity. The validation team confirmed that the GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects/38/ available during the investment decision recommends INR 165 Million / MW as the project cost. In the above background, validation team considers the cost is appropriate and conservative. Actual project cost of INR 3479.88 Million incurred till 04/03/2012 confirmed from the certificate dated 26/11/2012 issued by the Chartered Accountant/37/. The Chartered Accountant confirmed that the referred actual cost that includes Engineering, Procurement and Construction (EPC) cost, land and development cost, pre-operative expenses, interest during construction charges and contingency cost as on 04/03/2012 verified from the books of accounts and other related documents and records maintained by the PP. The validation team also cross-checked the EPC contract dated 28/02/2011/15/ issued to M/s Wipro EcoEnergy for design, supply, erection and commissioning of the solar photo voltaic power plant for 25 MW capacity and land lease agreement with GPCL dated 13/06/2011/40/which confirms total Engineering, Procurement and Construction cost constituents around 90% of the total actual project cost Thus the validation team confirmed that the total project cost considered that is applicable at the time of investment decision by the PP is appropriate and reasonable as cross-checked from the above sources.
Land & Development Cost	6%	Detailed Project Report dated 12/01/2011	The PP has assumed 6.26% of the total project cost as the land and development cost. The letter dated 13/06/2011 from Gujarat Power Corporation Ltd confirms cost of INR156.77 Million for land and possession charges/40/ and invoice dated 07/05/2012 from Gujarat Power Corporation Ltd also confirms INR 105.86 Million as the development charges/41/. It was confirmed from the above documents that the actual cost incurred for the land and its developments is 6.89% of the actual project cost. Hence, assumption by the PP during validation as 6.26% was deemed to be appropriate by the validation team. It was confirmed that since land is a lease hold, the expenses related to land is amortized over the lease period and added back in the calculation of the financial indicator. This is appropriate in accordance with the host country accounting procedures and also as per Paragraph 5 of the Guidelines on the assessment of investment analysis.



			The land cost was also cross-checked from the actual cost incurred which was certified by the G R & Associates-Chartered Accountants Firm/37/. The actual cost incurred on land and site development was found to be INR 355.02 Million.
Debt-Equity Ratio	70:30	Detailed Project Report dated 12/01/2011	The validation team cross-checked the financials considered by the PP during investment to confirm that the debt-equity ratio of 70:30 was assumed by the PP during the investment decision. GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects/38/ recommends debt-equity ratio of 70:30 which is normative for power generating companies in the host country. The above referred tariff order also confirms that Tariff Policy (TP) notified by Ministry of Power, Government of India stipulates a debt-equity ratio of 70:30 for financing of power project.
Interest Rate	13.25%	Detailed Project Report dated 12/01/2011	The interest rate is based on the DPR/19/, which was available to the project developer at the time of decision making. Validation team checked the DPR and found the value to be correct. Therefore, the consideration of loan amount is in conformity with guidance 6 of Annex 5, EB 62/26/. The PLR of SBI during decision date was 12.75%/33/ and even after considering this as interest rate, the project IRR changes from 8.98% to 8.95% which is well within the benchmark of 12.99%/4/.
Plant Load Factor	18%	Detailed Project Report dated 12/01/2011	The PP has referred the plant load factor from the Detailed Project Report/19/ specific to the project, prepared by M/s Mitcon Consultancy & Engineering Services Pvt. Ltd., the third party engineering consultant for the project engaged by the PP. The referred report indicates an initial PLF degradation of 1% from 2nd year onwards. The PLF for the Solar PV plant as provided by the supplier of the power plant, Wipro EcoEnergy Limited, one of the EPC contractors for the project, is in the range of 17-19% vide O&M contract/15/ between the two parties. The supplier also confirms the PLF degradation of 1% from 2nd year. The validation team confirmed that the PLF as recommended in the GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects/38/, applicable during the investment decision, is 20% for Solar Photovoltaic Power Plants'. During the validation it was confirmed that even if 20% PLF as per GERC tariff order is applied without considering the PLF degradation, the project IRR is 11.64% which is well within the benchmark of 12.99%. The assessment team confirms that the determination of PLF for the project activity is in accordance with Para 3(b) of Annex 11 of the 48th meeting of CDM EB



			"Guidelines for the reporting and validation of plant load factors" (Version 01)/22/ and is appropriate. Thus, it was confirmed that the PLF applied in the project meets the CDM requirements.
Tariff Rate for generated electricity	INR 15/KWh(for 1st 12 years) and INR 5/KWh(from 13-25 years)	PPA between PP and GUVNL	The tariff rate considered has been confirmed from 'GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects' applicable during the investment decision. The validation team confirmed from the Power Purchase Agreement (PPA) dated 09/12/2010/20/ signed between Roha Dyechem Pvt. Ltd. (RDPL) and Gujarat UrjaVikas Nigam Limited (GUVNL). GUVNL is a Government of Gujarat company responsible for purchase, sale and distribution of electricity in the State of Gujarat. It was confirmed from the referred PPA that the tariff rate of INR 15.00/ kWh is fixed for first 12 years and from 13th to 25 years, it is fixed as INR 5.00/kWh for the projects commissioned on or before 31/12/2011. The letter dated 05/03/2012 from GEDA addressed to the PP confirms the project is ready for generation of electricity and hence, the tariff rate as recommended in the GERC Solar tariff order dated 29/01/2010 is applicable/16/. The validation team confirmed that the fixed tariff rates as provided in the GERC tariff order dated 29/01/2010, available during the investment decision, are applicable for the project, which was cross-checked with the PPA signed by the PP with GUVNL. Thus, the tariff rate applied has been confirmed as appropriate.
Operation & Maintenance (O&M) charges	0.825 Million per MW/Annum with 5% escalation	GERC tariff order 2010	Operation and Maintenance charges in the GERC tariff order dated 29/01/2010/38/ available during the investment decision confirms an O&M cost of 0.5% of the project cost. It was confirmed by the validation team from the Letter of Award for Operation and Maintenance of the power plant that the actual O&M cost for twelve years of operation is 5.55% of the actual total project cost. Hence, the validation team confirmed that the consideration of an O&M cost of 0.50% of the total project for the entire life time of the project is conservative. Further, the validation team confirmed that GERC tariff order dated 29//01/2010 recommends an annual escalation of 5% in O&M cost from second year. Thus, the validation team confirmed that the O&M cost and its escalation of 5% considered in the project activity is appropriate. Further, it was also confirmed that even after excluding the total O&M cost, the project IRR is 10.17% which is far less than the benchmark of 12.99%/4/

Insurance Charges	0.35% of Net Asset Value	GERC tariff order 2010	GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects applicable during the investment decision confirmed that the insurance charges are 0.35% of the total project cost. Further, it was also confirmed that the insurance cost of 0.35% of the total project cost has no significant impact on the project IRR since, excluding of it increases the project IRR very marginally to 9.03% from the base IRR of 8.98%. Thus the validation team confirmed that the insurance cost considered during investment decision is appropriate.
Working capital requirements on receivables & O&M expenditure	1 Month	GERC tariff order 2010	The PP has considered receivables equivalent to one month's energy charges for sale of electricity and one month's cost on operations and maintenance expenses as the working capital. This is in accordance with GERC tariff order dated 29/01/2010 applicable during the investment decision. Hence the assumed working capital requirement is deemed to be appropriate.
Interest Rate on Working Capital	13.25%	Detailed Project Report dated 12/01/2011	The interest rate is based on the DPR, which was available to the project developer at the time of decision making. Validation team checked the DPR and found the value to be correct. Therefore, the consideration of loan amount is in conformity with guidance 6 of Annex 5, EB 62/26/. The PLR of SBI during decision date was 12.75% and even after considering this as interest rate, the project IRR changes from 8.98% to 8.95% which is well within the benchmark of 12.99%.
Income Tax Rate	33.22%	Section 143 of Income tax act 1961 and subsequent finance bills of the host country	The assessment team confirmed the host country taxation laws applicable during the investment decision and confirmed that the applied tax rate is calculated from the base rate of 30% with 7.5% surcharge and 3% cess/42/.
MAT Rate	19.93%	Host country tax rates	The assessment team confirmed the host country taxation laws applicable during the investment decision and confirmed that the applied tax rate calculated from the base rate of 18% with 7.5% surcharge and 3% cess is appropriate/42/. http://www.cbec.gov.in/budget1011/bh1.pdf
IT Depreciation Rate	80%	Section 32 of Income Tax Act 1961	The assessment team confirms that the rate of depreciation applied is in accordance with the host country regulations and confirmed from the Section 32 of Income Tax Act 1961.
Salvage Value	10%	GERC tariff order 2010	The assessment team confirmed that the salvage value of 10% of the depreciable cost excluding the land cost is appropriate for the renewable energy based projects, while 90% of the depreciable assets are depreciated for a period of 20 years which is a standard practice for calculating the book depreciation for power projects. The cost of land in full has been added back along with the working capital margin. This is considered

			appropriate and conservative since the financial analysis has been performed over the lifetime of the project activity while the investment analysis guidance only requires to consider a fair value if the investment analysis is being carried out for a period shorter than the expected operational life time of the project activity (technical life time)
--	--	--	---

Sensitivity Analysis:

The Guidance on Assessment of Investment Analysis requires the robustness of the conclusion arrived at to be proved through a sensitivity analysis by varying the critical assumptions to a reasonable variation. The project developer has identified generation (PLF), O&M cost, Installed capacity output and project cost as critical assumptions. All parameters other than O&M cost and Installed capacity output constitute more than 20% of the project cost/revenue. Nevertheless, project developer has chosen to subject O&M cost also to sensitivity test as it is the only cost. The rationale behind taking installed capacity output under sensitivity test is due to the variation of $\pm 5\%$ in module generation as per the manufacturer specifications. Reasonable variations of the Project Cost, annual O&M costs, Installed capacity output and PLF were checked by calculating the variation necessary to reach the benchmark and then discussing the likelihood for that to happen. None of the parameters in the sensitivity analysis are considered to have any significant positive correlation.

Guidance 21 of Annex 5 of EB 62/26/ states that as a general point of departure, variations in the sensitivity analysis should at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances. Accordingly, all these parameters have been subjected to 10% variation on either side except the project capacity which is subjected to $\pm 5\%$ sensitivity. The sensitivity analysis reveals that the IRR do not crosses the benchmark in case of + 10% increase in PLF, -10% decrease in Project Cost and + 10% increase in Tariff which is given in the following table:

Parameter	IRR with -10% variation	Base IRR	IRR with +10% variation	Cross Over Point
Project Cost	10.61%	8.98%	7.61%	-21.95%
O&M	9.11%		8.86%	NA
PLF	7.33%		10.57%	26.2%
	IRR with -5% variation		IRR with +5% variation	
Installed capacity output	8.17%	8.98%	9.78%	26.5%

Project Cost:

The project IRR is within the benchmark for a reasonable variation of -10% of the project cost as provided in the table above.

The project activity is operational and the costs have already been incurred by the project participant. The assessment team reviewed the EPC contract agreement/15/ and land lease document/40/that constituents around 90% of the total actual project cost and confirmed that the actual total project cost is 8.07% less than the project cost considered in the project financials. The project IRR at the actual cost is 10.48%/2/, well below the benchmark. It was confirmed that the project IRR reaches the benchmark only if the total project is reduced by 21.93% which is not possible, since the project is already commissioned.

Plant Load Factor (PLF)

The project IRR is within the benchmark for the reasonable variation (+10%) of net generation (PLF). The project IRR crosses the benchmark at a PLF of 22.72% which is an increase of +26.20%. GERC tariff order dated 29/01/2010 for Procurement of Power by the Distribution Licensees and others from Solar Energy

Projects dated 29/01/2010/38/, available during the investment decision, recommend an average PLF of 20% for Solar projects in Gujarat. It was also confirmed that at a PLF of 20%, the project IRR is 10.74% well below the benchmark/4/. Further, the supplier of the solar power plant also recommends a PLF of 18% only which is specific to the location. Hence, it is unlikely that the cross over PLF which is higher than the GERC recommended PLF will be achieved.

O&M Cost

Project IRR is within the benchmark for a reasonable variation of the O&M cost. The project IRR is well below the benchmark even if the O&M cost is totally excluded from the financials and it reaches the benchmark when the O&M cost is decreased by 547% at the rate -1.5% every year which is impossible due to rising inflation rate in the host country. However, it was confirmed by the validation team from the Letter of Award for Operation and Maintenance of the power plant that the actual O&M cost for twelve years of operation is 5.55%/15/ of the actual total project cost. Since the PP has already committed to the O&M expenses to the service provider, there is no possibility for reduction in the O&M cost. It was also confirmed that the project is well within the benchmark, even if O&M cost is considered as per the actual scenario.

Installed Capacity Output:

Project IRR is well within the benchmark with a +5% variation in installed capacity output. In a general practice, a solar module generates power within a $\pm 5\%$ range as per the specifications from module manufacturer. The same is applicable for this project type wherein PP has installed Nexpower (NT/AX series) 145 W solar modules. The assessment team confirms that even with a 5% increase in capacity output the IRR increases to 9.78% which is well below the benchmark of 12.99%. A $\pm 5\%$ robustness is reasonable in context of sensitivity of capacity output which is in agreement with the manufacturer specifications.

Based on the validation of the investment analysis that included an assessment of all parameters and assumptions used in calculating the financial indicator, cross-checks against third party or publicly available sources and correctness of calculations carried out, the financial returns from the proposed CDM project activity would be insufficient to justify the required investment without CDM revenue

Findings:

CAR #06 and CAR#13 please refer Annex 1 of this report where the same is discussed completely

Opinion:

The validation team would like to confirm that

- (a) Each input parameter has been sufficiently validated and cross checked wherever possible
- (b) The project IRR calculation are undertaken in correct manner and follows the standard accounting practice
- (c) The selected benchmark is developed using parameters that are standard in the market and have been suitably calculated. The type of benchmark is suitable for the financial indicator and is conservative than the default benchmark that was indicated in the web hosted PDD.
- (d) The investment analysis period is consistent with the technical lifetime of the project activity and adequate salvage value has been considered.
- (e) The national and sectoral policies have been considered while undertaking the financial calculations and all available incentives are being shown availed in the final spreadsheet.
- (f) The sensitivity has been conducted to a likely variation in the all the key parameters that might affect significantly the project IRR and it is confirmed that project IRR is not able to cross the identified benchmark under any likely scenario.
- (g) The investment analysis complies with EB62 Annex5/26/ to the extent that it can be concluded that project remains financial unattractive and therefore additional.

4.8.4 Barrier analysis

In the project activity, barrier analysis is not used by PP therefore this section is not applicable.

4.8.5 Common practice analysis

Discussion:

The project participant has considered the state of Gujarat as the geographical boundary for common practice analysis. Since the measure for the project activity falls under the list of measures mentioned in paragraph 6 of the "Tool for the demonstration and assessment of additionality", version 06.1.0, the common practice analysis has been conducted as per paragraph 47 of the tool/24/. These guidelines are further incorporated in "Guidelines on Common practice", EB 69, Annex 8, version 02.0/43/ to conduct the common practice analysis, which takes a four step approach to establish that the project is a common practice or not as discussed below.

Following the procedure for common practice analysis provided in the latest version of "Tool for the demonstration and assessment of additionality", common practice analysis was conducted.

Step 1: Calculate applicable output range as +/-50% of the design output or capacity of the proposed project activity

Capacity of proposed project activity is 25 MW. Therefore, the applicable range for this measure is from 12.5 MW to 37.5 MW.

Step 2: In the applicable geographical area, identify all plants that deliver the same output or capacity, within the applicable output range calculated in Step 1, as the proposed project activity and have started commercial operation before the start date of the project. Note their number Nall. Registered CDM project activities and projects activities undergoing validation shall not be included in this step.

In accordance with the above guidelines, state of Gujarat has been considered as the applicable geographical area as a default.

The project involves installation of 25 MW solar photovoltaic power plant in the district of Patan in Gujarat and the entire power generated is exported to GUVNL at the tariff fixed by GERC/20/. Since the tariff and other economic parameters vary widely between the different states of India, the applicable geographical area for the project activity is the state of Gujarat.

The start date of the project activity is 28/02/2011/15/. Prior to start of the project activity, there was no solar power project in the output range (12.5 MW to 37.5 MW). This was also cross-checked with the Annual Report of GETCO 2010-11 (page no 3 and 7)/44/ and found no solar PV project with similar capacity currently operational.

Therefore, Nall = 0

Step 3: Within plants identified in Step 2, identify those that apply technologies different that the technology applied in the proposed project activity. Note their number Ndiff.

Considering that there are no operational grid solar PV projects before the project activity start date in the applicable geographical area of the output range considered as per Step 2 and Step 3 above, Nall = Ndiff.

Thus, Ndiff = 0

Step 4: Calculate factor $F = 1 - (Ndiff / Nall)$ representing the share of plants using technology similar to the technology used in the proposed project activity in all plants that deliver the same output or capacity as the proposed project activity.

As per the guidance, a project activity is a common practice within a sector in the applicable geographical area if both the following conditions are fulfilled:

- (a) the factor F is greater than 0.2, and
- (b) Nall - Ndiff is greater than 3

As the value of F and Nall- Ndiff both are below the threshold indicated above, the proposed CDM project is not a common practice and therefore complements the additionality argument.

Findings:

CAR #07, please refer Annex 1 of this report where the same is discussed completely

Opinion:

The validation team confirms

- a) The geographical scope of common practice as entire country is chosen, which is correct as the project would rely on natural (insolation) local resources available

- b) The review of GETCO annual report (2010-11)/44/ which is a government publication confirms that there is no project activity existing which can be considered similar to project activity.
- c) There are no similar projects existing therefore the essential distinctions were not required to be studied further.
- d) The project is not a common practice as shown above.

4.9 Application of Monitoring Methodology and Monitoring Plan

Discussion:

The monitoring plan is included in Section B.7 of the PDD/1/ based on the approved monitoring methodology ACM0002, Version 13.0.0/21/ titled "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" and is correctly applied to the proposed CDM project activity.

The monitoring plan has been found to be in compliance with the requirements of the applied methodology. As per the methodology, the only parameter required to be monitored is "EGPJ,y , Quantity of net electricity generation supplied by the project plant/unit to the grid in year y". Validation team confirms by the supporting documents provided as well as by the on-site assessment that the monitoring plan contains all the monitoring parameters required by the selected monitoring methodology ACM0002 version 13.0.0.

The PDD has described the monitoring plan in a clear and transparent manner, which is in compliance with applied approved monitoring methodology ACM0002 version 13.0.0. The validation team has validated the each parameters required to be monitored as per applied monitoring methodology and in opinion the proposed monitoring plan in PDD is feasible to implement and will result in credible emission reductions due to the project activity.

Parameter determined ex-ante:

The project adopts the ex-ante calculation of emission factor of the grid. The OM and BM are calculated as fixed factors for the selected fixed crediting period by choosing data vintage based on ex-ante data published CEA database version 7/25/.

The methodology requires identification of the following for grid-connected renewable energy power projects:

- a) Data needed to calculate the operating margin emission factor, based on the choice of the method to determine the operating margin (OM), consistent with "Tool to calculate the emission factor for an electricity system", version 02.2.1/23/
- b) Data needed to calculate the build margin emission factor consistent with "Tool to calculate the emission factor for an electricity system", version 02.2.1/23/

The parameters determined ex-ante for calculating the emission factors are listed in the PDD/1/ and were verified by validation team as follows:-

1. Operating Margin (OM) emission factor (EF grid, OM, y) is 0.984 tCO₂/MWh
2. Build Margin (BM) emission factor (EF grid, BM, y) is 0.859 tCO₂/MWh
3. Combined Margin (CM) emission factor (EF grid,CM,y) of 0.953 tCO₂/MWh

The OM and BM are calculated as fixed factors for the first renewable crediting period by choosing data vintage (2008, 2009 and 2010) based on ex-ante data published by CEA version 7 /25/. The parameters for determining the GHG emissions reductions have been clearly demonstrated in section B.6.2.of the PDD/1/.

The validation team has verified the above information from the data published by Central electricity Authority Database version 7and confirms that values used are consistent and reasonable.The validation team has verified the value used against the sources and conclude that all relevant parameters to calculate the GHG emissions reductions of the project have been sufficiently considered and the value of the parameters are real, measureable and conservative.

Parameters monitored ex-post

The following parameters will be monitored ex-post:

- Quantity of net electricity generation supplied by the project plant/unit to the grid in year(EGfacility,y)

The parameters monitored ex-post involves net electricity supplied to the NEWNE grid by the project activity and the same is used in emission reduction calculations. Power generated from the project is exported to grid through a 66 KV transmission line of GETCO having two energy (Tri-vector ABT meter of 0.2s class) meters. The metering system will include a main meter and a back-up meter. The calibration of the meter will be carried out once in 3 year. The procedure has been confirmed during the interview with PP.

**Data management and QA/QC:**

For the project management planning, a dedicated team comprising of CDM project co-coordinators, plant manager & site engineer/supervisor will be formed to monitor and record data and perform quality check. The recording of data will be on daily basis which will be reported monthly. The primary responsibility of the team is to measure, monitor and record various data and to report to the manager. Records of calibration certificates will be maintained for verification purposes. Hence, a reliable method will be ensured with monitoring of the parameters. The invoice records will be used and kept for checking the consistency of the recorded data. All data will be archived electronically and kept for a minimum of 2 years following issuance of certified emission reductions or the end of the crediting period.

It was also confirmed during the on-site assessment that the monitoring arrangement described in the monitoring plan is feasible within the project design. The means of implementation of the monitoring plan are sufficient to ensure that the emission reduction achieved from the proposed project activity is verifiable and thereby satisfying the requirement of paragraph 133 (a) of VVS, version 2.0/7/. The monitoring plan will give opportunity for real measurements of achieved emission reductions.

Findings:

CAR #09(a, b, c, d), Please refer Annex 1 of this report where the same is discussed completely

Opinion:

The validation team confirms that:

- (a) All the values used from official sources and the authenticity of sources has been verified and the validation team confirms that all relevant parameters to calculate the GHG emissions reductions of the project have been sufficiently considered and the value of the ex-ante fixed parameter used for emission reduction calculation i.e. grid emission factor has been determined conservatively and the estimation ex-post parameters are reasonable. The validation team considers that the monitoring plan has complied with the requirements in the approved methodology thereby satisfying para 132 (a) of VVS version 02.0/7/.
- (b) The monitoring plan based on the approved monitoring methodology, ACM0002 version 13.0.07/21/ is included in Section B.7 of the PDD/1/ and is correctly applied to the CDM project activity. The monitoring plan has been found to be in compliance with the requirements of the applied methodology. The monitoring plan will give opportunity for real measurements of achieved emission reductions.
- (c) The validation team considers that monitoring arrangements described in the monitoring plan and feasible within the project design and the PP will be capable to implement the monitoring plan.

4.10 Environmental Impacts**Discussion:**

As per the EIA notification dated 14th September, 2006, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986 /45/, the proposed solar project activity does not fall under the purview of the Environmental Impact Assessment (EIA) notification of the ministry of Environment and forest, Government of India. The assessment team also checked the schedule of the notification published by Ministry of Environment and Forests (MoEF), Government of India/45/ which provides a list of project activities that require environmental clearance. According to this schedule solar power generation projects do not require a prior environmental clearance and hence EIA need not be carried out.

The project activity is expected to have only beneficial impacts and no adverse environmental impacts. Social & environmental impacts of the project have been sufficiently addressed. No adverse environmental impacts compared to baseline situation as well as trans-boundary impacts have been envisaged from this project activity.

Opinion:

The environment impact of the project activity has been discussed in section D.1 of the PDD/1/. No significant environmental impact is envisaged. Hence the validation team confirms that the project activity complies with the requirements of paragraph 134, 135 of VVS version 02.0/7/.

4.11 Local Stakeholder Comments**Discussion:**



A Local Stakeholders meeting was carried out by the project proponent on 30/06/2012/46/ which was prior to the publication of PDD on the UNFCCC website 15/08/2012 – 13/09/2012/29/.

The Project Proponent invited the local stakeholders for the meeting through newspaper advertisement (published in local Gujarati newspaper – Gujarat Today and Business Standard (English) on 21/06/2012/46/ and individual notices which were provided to the stakeholders several days ahead of the meeting. During the ceremony the project detail and information of the project being developed under CDM were explained to the stakeholders.

The meeting was attended by several stake-holders including technologies suppliers and Contractors, RDPL employees and local villagers from the vicinity of the project site.

A summary of the comments received and responses of the RDPL officials are recorded and the same have also been included in PDD. No negative comments were identified.

During the site visit conducted on 17/11/2012& 18/11/2012/17/, the DOE met a section of the stakeholders. The stakeholders were mainly farmers, laborers, villagers and employees of RDPL. The stakeholders confirmed the stakeholder meet held by the PP and that they had no concerns with respect to the project activity. Stakeholders stated that the project activity helped the village by generating employment opportunities for the local villagers.

The validation team noted that all the relevant stakeholders were identified are in line with the definition of stakeholders as per latest version of CDM Glossary of terms/27/.

Findings:

CAR #11(a, b, c, d), please refer Annex 1 of this report where the same is discussed completely

Opinion:

The validation team reviewed all relevant information of local stakeholder consultation meeting and confirms that the stakeholders consultation meets to the requirement of para 138 of VVS version 02.0/7/. The validation team have verified the related documents and found acceptable and interviewing some of the attendees of the stakeholder meeting during onsite visit on 17/11/2012& 18/11/2012/17/, which concludes that the project participant conducted the stakeholders' consultation process in transparent and unbiased manner. The validation team was able to conclude that the project activity has not received any adverse comment during stakeholders' consultation process. The validation team confirms that the process for conducting the local stakeholders meeting is adequate and credible.

4.12 Project design of small-scale CDM project activities

The project is not a small scale project activity. This section is therefore not applicable.

5. Global Stakeholder Consultation Process

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures and section E of VVS V2, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

5.1 Description of how and when the PDD was made publicly available

The Project Design Document for this project was made available on <http://cdm.unfccc.int/Projects/Validation/DB/EFP2N00TFMTBBJ1Q17M0TNWML9U1C/view.html> and was open for comments from 29/05/2012 until 27/06/2012.

5.2 Compilation of all comments received

Comment Number	Date Received	Submitter	Comment
01	13/09/2012	Falguni Joshi	Following comments were received during the web-hosting of the PDD for global stake holder comments. Therefore clarification is required on the followings- Compilation of submitted inputs: SECTION A. Description of project activity a) On page 2 PDD indicates, "The project proponent will earmark an amount equal to 2% of the sale proceeds of the CER's for sustainable development, as per regulations of Ministry of Environment and Forests, Government of India since the project is a large scale project. The project proponent intends to spend this amount in social/community development activities." There is no plan how project proponent will going to spend 2% CER money – Our suggestion is that involve the local people in planning and implementing the activities. b) Social Well-being: How many skilled/unskilled people from surrounding area will be employed at this project during commissioning and operation? c) SECTION E. Local stakeholder consultation: List of stakeholders and minutes of stakeholder meeting is not attached with PDD d) SECTION F. Approval and authorization: How can a project proponent led to UNFCCC without getting host country approval? e) Selection of Location: Why this location has been chosen for this project? f) Impact on surrounding area: Will this project has impact on temperature in surrounding area? What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?
02	13/09/2012	Leo	g) DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project.



Comment Number	Date Received	Submitter	Comment
			h) 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. i) Careful study must be done so that the DPR/FR is not in different versions made and submitted with different purposes to different agencies, which is totally unacceptable, illegal and unethical. j) Project owner should show some undertaking letter from bank manager to DOE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DOE at face value, but must be checked independently. While collecting the DPR/FR from banks and other agencies, all DPR/FR pages should be counter signed by Banks and other agencies so that the real DPR/FR given to other parties by the PP/Consultant is same as the one submitted to DOE. k) DPR/FR values must be probed fully. DOE must take a written undertaking from the PP/Consultant about the list of parties to whom this DPR/FR is submitted and for what purposes. Then DOE should cross check with all the parties and confirm that the same DPR/FR is submitted to all the parties correctly without any changes. DOE must not accept any reports and undertakings from PP/Consultant. DOE must make independent evaluation and use totally different parties without informing the PP or Consultant to cross check the facts. l) 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. m) DOE must not entertain this project any more if found the DPR/FR is tampered with at any point in time. PP can not give different DPR's and FR's. They must submit only the one given to Banks and other agencies while obtaining loans and decision making time. n) Has the PP considered the CDM revenues while envisaging the project? Without CDM the project was not viable, is it right? This project is having a debt component? Then how bankers or lenders gave the loan? Have the bankers or lenders considered the CDM revenues while agreeing to give loan to this projects? If not this project should be rejected right away by DOE by terminating the contract forthwith. If yes, where is the proof? What is the date of the evidence document from bank? Is this document printed now a days or earlier. DOE to independently check the same. If the document

Comment Number	Date Received	Submitter	Comment
			is available from Bank it must be checked from all angles so that it is genuine and not forged and date changed by putting back dated. This is normally done, DOE to be aware of this please. Please check the communication the PP had during that time with banks, emails and postal receipts and the weights and dates mentioned on the receipts. Do not believe in courier bills and receipts since these can be cooked up easily. Insist on government owned postal service receipts only. If the project is fully equity project then on what basis the PP has invested full equity in to the project while considering the CDM revenue? DOE to check the same in detail and bring out the facts. Is there any past record of this PP to invest or not to invest at returns what he is talking about in this project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation. o) Is the project equipment purchased second hand equipment or sourced from cheap foreign sources? If yes, the issue must be probed by DOE since invoices will invariably be inflated and forged. Total project costs mentioned by PP will not be the same as originals. Hence no additionality. These facts must be probed in full by DOE by checking all documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst. p) From DOE side which auditor has done marketing and business development for acquiring this business of validating this project? With whom he or she was co-ordinating at PP or CER buyer? The same person who has done the marketing and business development to acquire the business do validation or participate in any manner what so ever in the validation process? One cannot do like that. It is against the accreditation rules and norms followed since ages. DOE should send auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please. q) If applicable only: Is these machines, equipment was a part of any bundle of CDM activity envisaged and



Comment Number	Date Received	Submitter	Comment
			developed earlier. DOE to check the same through independent sources also. Once some bundles are non-additional and getting negative validation from a DOE, PP is rolling out the same project as an individual project which is not a CDM project at all. DOE to verify the same from independent sources and also take undertaking in the form of an affidavit from the PP's that any misrepresentation or false statement with respect this would attract strict legal action from UNFCCC and DOE. Furthermore the registered project must be de-registered in case of any future findings contradicting the submissions made by the project owner. r) DOE to be more careful so that this is a genuine CDM project. What is the exact project cost? The project cost is covering what? Each value considered must be validated with proof. The machinery is second hand purchased or fresh and new from an OEM? In either case DOE to check all the quotations, proposals, purchase orders, invoices, way bills, transport bills, proof of payments like bank statements. DOE to check with banks by way of written confirmation the amount transacted, to whom the money is paid, when the money is paid, is the party paid is the correct party as shown in the purchase orders. It may so happen that the values, party names, dates are fabricated and misrepresented in this project. DOE should terminate their contract for this project immediately. This is the only way out to protect the value of CDM process. If the PP is purchasing second hand or second quality equipment and inflating the purchase order values and invoices, this must be probed thoroughly and real values to taken for additionality calculation. Then I'm sure the additionality is not there at all in such a situation. s) How is the base line defined in this project? Is Base line hypothetically defined with no proper evidences and proper justification? In such case, DOE cannot take the base line as suggested by the PDD. Please check that there are real emission reductions beyond the real and factual base line. It may so happen that this project qualifies for no CER's. DOE cannot assume values and things as giving by this PP. Whatever values are considered throughout the project in all documents including the real DPR (not the one prepared for CDM, the one given to the banks and others), they must be validated, verified and double checked. Do not ask PP for DPR. Ask the parties who have been given DPR by the PP. Get directly from the bank and others by each page

Comment Number	Date Received	Submitter	Comment
			of the DPR and Feasibility report signed. Such document can be considered as a real DPR or FR. UNFCCC CDM process cannot be degraded by fabricating and misinterpreting the project base line and additionality.

5.3 Explanation of how comments have been taken into account

Project proponent Response:

- The detailed implementation plan has been provided to the village panchayat and district collector and the same has been conveyed to the MoEF. The revised PDD also contains the details of implementation plan.
- During construction period more than 200 skilled as well as unskilled workers were employed from surrounding areas by the EPC contractor and other sub contractors. Currently during the operation period more than 40 both skilled and unskilled labors from surrounding area has been employed.
- The stakeholders details has been provided to the DOE.
- The project proponent has already applied for HCA and the letter of approval is expected shortly. The project activity will be submitted for request for registration after obtaining the HCA.
- The land has been allotted by Gujarat Govt.
- There will be no increase in temperature in surrounding area due to the project activity. On the contrary the project activity will contribute to mitigation of global warming. There is no negative impact on the environment due to the project activity.
- DPR, on the basis of which PP took the investment decision, has been provided to the DOE.
- DPR, on the basis of which PP took the investment decision, has been provided to the DOE. The board resolution has also been submitted to the DOE.
- Not relevant for the project activity.
- Not relevant for the project activity.
- The baseline has been determined based on the guidance provided in ACM 0002, version 13.

Assessment Team Response:

- The assessment team has reviewed the revised PDD which contains the activities which PP would like to undertake in the identified villages as 2% of revenue earned from sale of CER. Hence the response provided by the PP is justifiable and the point is CLOSED.
- During site visit, the assessment team conducted interview with local villagers and stakeholders and confirms that skilled/unskilled people are employed in the project at construction and operation phase. The point is CLOSED.
- The assessment team has received list of stakeholders, minutes of meeting and confirms that stakeholders were identified as per Glossary of CDM terms. Moreover, the revised PDD includes details of summary of comments received during stakeholder meeting and how they were addressed. The point is CLOSED.
- Based on justification provided by PP, the point is CLOSED.
- Land for the project activity has been allotted by Gujarat Power Corporation Ltd (GPCL). The same was checked from the lease deed signed between GPCL and RDPL. GPCL is appointed as a nodal agency for facilitation and implementation for Gujarat Solar policy 2009. Hence the point is CLOSED.
- Based on justification provided by PP, the point is CLOSED.
- The values in PDD are obtained from DPR which is prepared by third party. The values of PDD, IRR

and CER spreadsheet are consistent with the DPR values. Hence the point is CLOSED.

- h) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- i) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- j) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- k) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- l) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- m) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- n) Board resolution by PP is submitted to the assessment team which clearly highlights the importance of CDM revenue for the project. The same was cross checked from the Loan sanction letter from ICICI bank which confirms that bank also considered CER revenue while confirming the loan to PP. Hence the point is CLOSED.
- o) The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.
- p) KBS has its business development team, which takes care of getting the projects for the auditors to audit. The auditors have no role in getting the project for validation or in the marketing or business development side of the organisation. The auditors at KBS have signed the impartiality agreement and are not involved in business development side of the organization. Hence the point is CLOSED.
- q) The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.
- r) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.
- s) The project activity applies ACM0002 version 13.0.0 which itself prescribes the baseline scenario which is Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". Hence the point is CLOSED.

6. References

S. No	Name of Document
/1/	/1.1/ PDD version 1 dated 06/07/2012 (publicly available/webhosted) /1.2/ PDD version 2 dated 22/11/2012 /1.3/ PDD version 3 dated 07/12/2012 /1.4/ PDD version 4 dated 23/12/2012 (final document)
/2/	/2.1/ IRR Sheet Roha version 1 dated 06/07/2012 (corresponding to webhosted PDD) /2.2/ IRR Sheet Roha version 2 dated 22/11/2012 /2.3/ IRR Sheet Roha version 3 dated 07/12/2012 /2.4/ IRR Sheet Roha version 4 dated 23/12/2012 (final document)
/3/	/3.1/ CER Estimation Sheet version 1 dated 06/07/2012 (corresponding to webhosted PDD) /3.2/ CER Estimation Sheet version 2 dated 07/12/2012 /3.3/ CER Estimation Sheet version 3 dated 23/12/2012 (final document)
/4/	/4.1/ Benchmark Sheet version dated 06/07/2012 (corresponding to webhosted PDD) /4.2/ Benchmark Sheet version dated 22/11/2012 (final document)
/5/	Letter of Approval (Letter No. 4/17/2012-CCC) issued by DNA of India dated 12/12/2012
/6/	UNFCCC web site: http://cdm.unfccc.int/DNA/index.html http://maindb.unfccc.int/public/country.pl?country=IN
/7/	EB 65, Annex 04: CDM Validation and Verification Standard – Version 02.0
/8/	Loan Sanction Letter from ICICI Bank (Ref. No: 01/BGHKG/33191) dated 31/03/2011
/9/	EB 45, Annex-59: Procedures for Modalities of Communication between Project Participants and the Executive Board, version 01.0.
/10/	Modalities of Communication signed on 14/11/2012
/11/	F-CDM -PDD forms and templates http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid06.pdf
/12/	EB 66, Annex 08 :Guidelines for completing the project design document form, version 01.0
/13/	Project Allotment Letter from Energy & Petrochemicals department, Government of Gujarat dated 14/10/2010
/14/	Technical Specifications of Nexpower 145W solar module Technical Specification of Satcon Power gate 500KW Inverter
/15/	EPC Supply agreement dated 28/02/2011 signed between RDPL and Wipro EcoEnergy O&M Agreement dated 28/02/2011 signed between RDPL and Wipro EcoEnergy Installation & Commissioning agreement dated 28/02/2011 signed between RDPL and Wipro EcoEnergy
/16/	Gujarat Energy Development Agency (GEDA): Readiness for generation of the Solar Power Plant dated 05/03/2012 Gujarat Energy Development Agency (GEDA): Certificate of Commissioning of the Solar Power Plant dated 11/04/2012
/17/	Details of Site Visit conducted by KBS dated 17/11/2012 & 18/11/2012
/18/	Prior Consideration intimation Form to UNFCCC and Host Party DNA dated 04/08/2011
/19/	Detailed Project Report for RDPL, prepared by Mitcon Consultancy & Engineering Services Ltd. dated 12/01/2011 Web-link of Third Party DPR Consultant: http://www.mitconindia.com/

/20/	PPA signed between RDPL and GUVNL dated 09/12/2010
/21/	ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources --- Version 13.0.0, valid from 11/05/2012 http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT
/22/	EB 48, Annex 11 : Guidelines for reporting and validation of Plant Load Factors, version 01
/23/	EB 63, Annex 19: Tool to calculate the emission factor for an electricity system, version 02.2.1
/24/	EB 69, Annex 20: Tool for the demonstration and assessment of additionality, Version 6.1.0
/25/	Central Electricity Authority (CEA) : CO2 Baseline Database for the Indian Power Sector, version 7.0 http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm
/26/	EB 62, Annex 5: Guidelines on the assessment of investment analysis, version 05.
/27/	EB 70, Annex 7 : Glossary of CDM Terms, version 07.0 http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf
/28/	Declaration Letter from Wipro EcoEnergy dated 11/10/2012
/29/	UNFCCC website to confirm Global stakeholder dates and comments: http://cdm.unfccc.int/Projects/Validation/DB/EFP2N00TFMTBBJI1Q17M0TNWML9U1C/view.html
/30/	Prior Consideration of CDM : Intimation to UNFCCC and Host party DNA dated 04/08/2011 http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html Mail Correspondence between RDPL and UNFCCC dated 04/08/2011 Mail correspondence between RDPL and Host Party DNA dated 04/08/2011
/31/	Roha Dyechem Pvt. Ltd. : Board Resolution dated 21/01/2011
/32/	EB 62, Annex 13 : Guidelines on the demonstration and assessment of prior consideration of the CDM, version 04
/33/	Web-link to check the PLR: http://www.moneycontrol.com/stocks/stock_market/corp_notices.php?autono=395666 http://in.reuters.com/article/2011/02/28/india-plr-idINSGE71R06L20110228
/34/	Web-link to check the Tax Rate: http://www.cbec.gov.in/budget1011/bh1.pdf
/35/	Reserve Bank of India: Web-link to check the Inflation rate http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/weorept.aspx?pr.x=57&pr.y=1&sy=2010&ey=2017&scsm=1&ssd=1&sort=country&ds=.&br=1&c=534&s=PCPI%2CPCPIPCH&grp=0&a=
/36/	Proposal for EPC from Wipro EcoEnergy dated 15/11/2010
/37/	Certification of Project Cost: Chartered Accountant Certificate from G R & Associates dated 26/11/2012
/38/	GERC: Determination of tariff for Procurement of Power by the Distribution Licensees and others from Solar Energy Projects dated 29/01/2010 http://www.gercin.org/renewablepdf/en_1303211935.pdf
/39/	EB 50, annex 15: Tool to determine the remaining lifetime of equipment, version 01
/40/	Land Lease agreement with Gujarat Power Corporation Ltd. dated 13/06/2011
/41/	Invoice for development charges for land from Gujarat Power Corporation Ltd. dated 07/05/2012
/42/	Web-link to confirm MAT and Income Tax Rate http://www.cbec.gov.in/budget1011/bh1.pdf
/43/	EB 69, Annex 8: Guidelines on Common practice, version 02.0
/44/	Gujarat Energy Transmission Corporation Ltd.- Annual Report 2010-2011 (page no 3 and 7)



/45/	Ministry Of Environment And Forests(MOEF): Environment Impact Assessment Notification: http://moef.nic.in/downloads/rules-and-regulations/3067.pdf http://www.moef.nic.in/legis/eia/so1533.pdf
/46/	Stakeholder consultation Invitation sent in news paper with date to provide their inputs 21/06/2012 List of attendees for stakeholder consultation on 30/06/2012 Minutes of meeting held on 30/06/2012

-

Annex 1: Validation Protocol

Annex 1: Validation Protocol (Project Activity – LSC/SSC)

Table 1 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (Section E to J, CDM VVS and relevant paragraphs of CDM PCP)

Requirement(s)	Ref	Validation Assessment	Conclusion	
			Draft	Final
1. 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	Para 13, 20, 21 of PCP 			

2. 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 a) The Party is a Party to the Kyoto Protocol b) Participation is Voluntary c) In case of host Party, confirming that the proposed CDM project activity contributes to sustainable development of the country d) It refers to the precise proposed CDM project activity title in the PDD being submitted for registration b) Whether the letter(s) of approval is unconditional with respect to (a)-(d) above? c) The letter(s) of approval has been issued by respective Party's DNA and is valid for the project PA under validation	Para 38 of VVS Para 39 of VVS Para 40 of VVS Para 41 of VVS (Section F of VVS)	As mentioned in the PDD, the project activity is a unilateral project and India is host country for the project activity, which has ratified Kyoto Protocol on 26th August 2002. The same has been checked using http://maindb.unfccc.int/public/country.pl?country=IN India has nominated Ministry of Environment & Forests as its DNA. The same has been confirmed using link below http://cdm.unfccc.int/DNA/index.html The Letter of Approval from the DNA of host country has not been provided to validation team. Hence CAR#01(a) is raised. <table border="1"><thead><tr><th>Validation Criteria</th><th>Yes/No</th><th>MoV</th></tr></thead><tbody><tr><td>The Party is a Party to the Kyoto Protocol</td><td>Yes</td><td>/DR/</td></tr><tr><td>Participation is voluntary</td><td>Yes</td><td>/DR/</td></tr><tr><td>In case of host Party, the proposed PA contributes to the sustainable development of country</td><td>Yes</td><td>/DR/</td></tr><tr><td>It refers to the precise proposed CDM project activity title in the PDD being submitted for registration</td><td>Yes</td><td>/DR/</td></tr></tbody></table> The Host Country Approval from the DNA of India is submitted to the Validation Team. The validation team confirms after reviewing the LoA from respective DNA that it contains the precise details of project activity and project participant, which is consistent with PoA-DD. Hence CAR#01(a) is closed.	Validation Criteria	Yes/No	MoV	The Party is a Party to the Kyoto Protocol	Yes	/DR/	Participation is voluntary	Yes	/DR/	In case of host Party, the proposed PA contributes to the sustainable development of country	Yes	/DR/	It refers to the precise proposed CDM project activity title in the PDD being submitted for registration	Yes	/DR/	CAR#01(a)	OK
Validation Criteria	Yes/No	MoV																	
The Party is a Party to the Kyoto Protocol	Yes	/DR/																	
Participation is voluntary	Yes	/DR/																	
In case of host Party, the proposed PA contributes to the sustainable development of country	Yes	/DR/																	
It refers to the precise proposed CDM project activity title in the PDD being submitted for registration	Yes	/DR/																	
3. Whether each project participant has been authorized by at least one Party involved in a letter of approval.	Para 45 of VVS (Section G of VVS)	Subject to closure of CAR#01(a) <table border="1"><thead><tr><th>Validation Criteria</th><th>Yes/No</th><th>MoV</th></tr></thead><tbody><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 & Appendix 1 of the PDD.</td><td>Yes</td><td>/DR/</td></tr><tr><td>The approval of participation has been issued from the</td><td>Yes</td><td>/DR/</td></tr></tbody></table>	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	Yes	/DR/	CAR#01(a)	OK			
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	Yes	/DR/																	



		<table><tr><td>relevant DNA</td><td></td><td></td></tr></table> The Host Country Approval from the DNA of India is submitted to the Validation Team. The validation team confirms after reviewing the LoA from respective DNA that it authorizes the project participant, which is consistent with PDD. Hence CAR#01(a) is closed.	relevant DNA																			
relevant DNA																						
4. The DNA has considered whether the proposed CDM project activity assists the host Party in achieving sustainable development	Para 50 of VVS (Section H of VVS)	Subject to closure of CAR#01(a) <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> The validation team confirms after reviewing the LoA from respective DNA that it contributes to sustainable development, which is consistent with PDD. Hence CAR#01(a) is closed.	Validation Criteria	Yes/No	MoV	The LoA (host Party) confirms the same	Yes	/DR/	CAR#01(a)	OK												
Validation Criteria	Yes/No	MoV																				
The LoA (host Party) confirms the same	Yes	/DR/																				
4 Modalities of communications 4.1 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. 4.2 Validation that the MoC statement has been correctly completed and duly authorized.	Para 53 of VVS (Section I of VVS) Para 59 of VVS	The MoC was not provided to validation team. Hence CAR#01(b) is raised. <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> The modalities of communication (MoC) for the given project activity, signed on 14/11/2012 was received from the PP. The assessment team can confirm that the signatory and contact details on the MoC are authorized and credible; the MoC is prepared using latest version of F-CDM-MOC form and “Procedures for	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/	CAR#01(b)	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/																				

		modalities of communications between project participants and the Executive Board” EB 45, annex 59, version 01.0. The MOC is correctly filled including the Modalities of Communication statement (Annex-I) and Statement of Agreement (Section-3). Hence CAR#01(b) is closed. <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>	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/		
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/														
5 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)	The project design document was prepared in accordance with “Guidelines for Completing the Project Design Document”, version-01.0, using Project Design Document Form for CDM project activities (F-CDM-PDD), version-04.1, which was the latest version available on UNFCCC site at the time PDD made publically available for Global Stakeholder Consultation process. The same was checked using links below http://cdm.unfccc.int/Reference/PDDs_Forms/index.html#reg	OK	OK												
7. Please state the project participants listed in the PDD and check with which of these project participants does KBS have a contract for the projects validation.	Para 15 of PCP	As mentioned in PDD, the following project participant are listed 1. Roha Dyechem Pvt. Ltd. 2. First Climate (India) Private Limited KBS has contractual agreement with Roha Dyechem Pvt. Ltd. and the same was verified with the signed agreement No. CDM.12.VAL.056 dated 06/06/2012. Thus it is concluded that one of the project participant listed in the PDD has direct contractual agreement with KBS. <table><tr><td>Name of the PPs in the PDD (GSP) with which KBS has validation contract</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Roha Dyechem Pvt. Ltd.</td><td>Yes</td><td>/DR/</td></tr></table>	Name of the PPs in the PDD (GSP) with which KBS has validation contract	Yes/No	MoV	Roha Dyechem Pvt. Ltd.	Yes	/DR/	OK	OK						
Name of the PPs in the PDD (GSP) with which KBS has validation contract	Yes/No	MoV														
Roha Dyechem Pvt. Ltd.	Yes	/DR/														
a) 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	Para 15 of PCP	No inclusion or withdrawal of project participant listed in PDD uploaded for global stakeholder consultation process. <table><tr><td>Name of the PPs in the PDD (RFR) with which KBS</td><td>Yes/No</td><td>MoV</td></tr></table>	Name of the PPs in the PDD (RFR) with which KBS	Yes/No	MoV	OK	OK									
Name of the PPs in the PDD (RFR) with which KBS	Yes/No	MoV														



	should be obtained from the withdrawn project participant(s) confirming its voluntary withdrawal from the proposed project activity.		<table><tr><td>has validation contract</td><td></td><td></td></tr><tr><td>Roha Dyechem Pvt. Ltd.</td><td>Yes</td><td>/DR/</td></tr></table>	has validation contract			Roha Dyechem Pvt. Ltd.	Yes	/DR/		
has validation contract											
Roha Dyechem Pvt. Ltd.	Yes	/DR/									
b)	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	KBS has entered into contractual relationship with Roha Dyechem Pvt. Ltd., and same is listed in section A.4 and Appendix 1 of the PDD.	OK	OK						
c)	Project participants who are listed in the PDD (submitted for global stakeholder consultation) but who do not have a contractual relationship with KBS for the purposes of the validation activity may be removed from the PDD which is submitted for registration	Para 15 of PCP	No inclusion or withdrawal of project participant listed in PDD Version 01 uploaded for global stakeholder consultation process.	OK	OK						
d)	KBS may restart the validation activity through the new or revised contract with a different set of project participants by; a. Indicating that the first validation contract has been terminated and; b. Republishing the PDD or revised PDD for global stakeholder consultation.	Para 16 of PCP	Not Applicable	OK	OK						



Table 2 –Validation Requirements for Clean Development Mechanism (CDM) Project Activities (Section K to N (and section VIII) of CDM VVS and relevant paragraphs of CDM PS)

Checklist Question(s)	Ref	MoV*	Validation Assessment	Conclusion																	
				Draft	Final																
SECTION A. Description of Project Activity																					
A.0. Cover page of PDD																					
A.0.1 Isthe cover page of the PDD is correctly and completely filled?	PDD Page 5	/DR/	The title of the project activity mentioned is “Solar PV power project by Roha DyechemPvt. Ltd. (EKIESL.CDM.Aug-11-02)”. The uniqueness of the title was verified by checking the same on UNFCCC website i.e. http://cdm.unfccc.int/Projects/Validation/DB/EFP2N00TFMTBBJI1Q17M0TNWML9U1C/view.html The title of the project activity is unique and its enable reader to uniquely identify and locate the project activity and its content. The version number and the date of the version have been mentioned cover page of the PDD as version: 01 and Date: 06/07/2012. <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>	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	OK	OK
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	/DR/	The proposed project activity is the installation of a 25 MW solar photovoltaic power plant at Patan district in Gujarat, India. Furthermore, the aim of the project activity is to utilize the renewable source (solar energy) to generate electricity and supply it to Gujarat State grid which is a part of NEWNE regional Grid of India. However, brief description of the technology employed is not complete and PDD does not use DD/MM/YYYY format for dates as per Project standard, version 01.0, EB65, Annex 5. Hence CA#02(a, b) is raised. <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>Yes</td></tr><tr><td>Explain how the project activity will reduce GHG emissions or increase GHG removals</td><td>Yes</td></tr><tr><td>Indicate the sectoral scope(s) and type of the project activity</td><td>Yes</td></tr><tr><td>Explain the contribution of the project activity to sustainable development</td><td>Yes</td></tr></table> CAR#02(a, b) is closed as necessary corrections has been done in revised PDD.	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	Yes	Explain how the project activity will reduce GHG emissions or increase GHG removals	Yes	Indicate the sectoral scope(s) and type of the project activity	Yes	Explain the contribution of the project activity to sustainable development	Yes	~~CAR#02(a)~~ <
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	Yes													
Explain how the project activity will reduce GHG emissions or increase GHG removals	Yes													
Indicate the sectoral scope(s) and type of the project activity	Yes													
Explain the contribution of the project activity to sustainable development	Yes													



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	/DR/ //	In section A.1, the project description is provided in a clear and transparent manner. Please refer CAR02 raised above. <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>NA</td></tr></table> The validation team has conducted a site visit for proposed project activity on 17/11/2012 & 18/11/2012 and confirms that description of proposed project activity in PDD deemed reasonable, accurate and complete.	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)?	NA	~~Pending on Site Visit~~	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)?	NA												
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	/DR/ //	Not applicable as PDD claims that project activity is a Greenfield project at site where no power being generated prior to project activity and does not involve any alteration of existing installation or process. However, the same need to be verified during site visit and by document review. The same has been confirmed during site visit conducted on 17/11/2012 & 18/11/2012.	~~Pending on site visit~~	OK								
A.1.5 Is all information provided consistent and in compliance with the actual situation or planning?	Para 69(a) of VVS	/DR/ //	The information provided in PDD version-01, is consistent with planned activity and actual situation observed onsite.	~~Pending on site visit~~	OK								
A.1.6 Is all information with respect to project description deemed accurate and complete?	Para 69(b) of VVS	/DR/	Pending on site visit. Please refer to CAR#02(b) raised above.	CA#02(b)									
A.1.7 If a physical site visit is not conducted, is it justified appropriately?	Para 69I of VVS	/DR/	The validation team has conducted site visit on 17/11/2012 & 18/11/2012	OK	OK								
A.2. Location of project activity													



A.2.1 Is the host Party(ies) correctly indicated in the PDD?	A.2 of PDD	/DR/	The PP has correctly identified host country as India, which is consistent with other sections of the PDD.	OK	OK								
A.2.2 Is the Region/State/Province etc., correctly indicated in the PDD?	A.2 of PDD	/DR/	The PDD has correctly identified and indicated the state as Gujarat, India.	OK	OK								
A.2.3 Is the City/Town/Community etc., correctly indicated in the PDD?	A.2 of PDD	/DR/	The PDD has correctly identified and indicated the District/Town as Patan, Taluka- Santalpur. However the name of village mentioned in PDD is not consistent with the name of village in DPR, PPA and Purchase Orders of EPC. Hence CAR#02(c) is raised. CAR#02(c) is closed as necessary corrections have been done in revised PDD.	CAR#02(c)	OK								
A.2.4 Is the Physical/Geographical location correctly indicated in the PDD?	A.2 of PDD	/DR/	The information on location of the project activity is being provided appropriately which includes village, taluka, district and state. The geo-coordinates of the project site are in correct format. CAR#02(d) is raised as the coordinates were found consistent with the DPR but different from prior CDM consideration and also to be reported in the deg min sec format, as per convention, <table border="1"><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> The geo-coordinates mentioned in the PDD are validated by cross-checking with the supportive documents such as DPR and Prior consideration of CDM form. Hence the CAR was closed.	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	CAR#02(d)	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	A.3 of	/DR/	CAR#03 is raised for the following inconsistencies:	CAR#03(a)	OK								



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?	PDD	//	a) Considering 172,422 solar modules of 145 W (±5%), the total installed capacity comes out to be 25.001190 MW, which is not indicated in the PDD anywhere. Further clarification is required taking note of 6400 mounting structures each capable of accommodating 27 modules provides installed capacity as 25.056 MW. Explanation and suitable correction is required in this regard. b) A flow diagram is not included for the stages between power generation at module to electricity export to grid. c) The description information about the age and average lifetime of the equipment based on manufacturer's specifications is not provided in the PDD. However, the project details mentioned in the PDD needs to be verified during site visit <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The age and average lifetime of the equipment defined based on manufacturer's specifications and industry standards</td><td>Yes</td></tr><tr><td>Existing and forecast installed capacities, load factors and efficiencies defined</td><td>Yes</td></tr><tr><td>Monitoring equipments and locations are defined.</td><td>Yes</td></tr><tr><td>Energy and mass flows and balances of system and equipments included in the project activity</td><td>NA</td></tr><tr><td>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</td><td>Yes</td></tr></table> In response to corrective action request, the PP has incorporated the required details, which were found consistent with on site observation. Hence CAR#03(a,b,c) is closed.	Validation Criteria	Yes/No	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	Yes	Monitoring equipments and locations are defined.	Yes	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	Yes	CAR#03(b) CAR#03(c)	
Validation Criteria	Yes/No																
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	Yes																
Monitoring equipments and locations are defined.	Yes																
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	Yes																
A.3.2 Does the PDD contains list of existing equipment and facilities under operations/baseline scenario?	A.3 of PDD	/DR/ //	The project activity is a greenfield power project activity and thus it does not involve any existing equipment and alteration of existing installation or process. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity</td><td>NA</td></tr><tr><td>Facilities, systems and equipment in the baseline scenario, as established in section B.4 of PDD.</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	Facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity	NA	Facilities, systems and equipment in the baseline scenario, as established in section B.4 of PDD.	NA	OK	OK						
Validation Criteria	Yes/No																
Facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity	NA																
Facilities, systems and equipment in the baseline scenario, as established in section B.4 of PDD.	NA																



			The same was confirmed during 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	/DR/	As per baseline scenario identified in section B.4 of the PDD, the scenario existing prior to implementation of the project activity is same as baseline scenario.	OK	OK
A.3.4 Is the scale and type of the project activity correctly identified?	Para 31 of PS	/DR/	Not applicable as project activity is a large scale project activity.	NA	NA
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	/DR/	The table required for indication of project participant is correctly filled as per "Guidelines for Completing the Project Design Document", version-01.0 EB66, Annex-8 and is consistent with Appendix-1.	OK	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	/DR/	The information regarding the project participants included in section A.4 and appendix-1 of the PDD has been checked by the validation team and the both the sections were found to be consistent with each other and filled in the correct format. However, the project participant's details to be verified with letter of approval from host country and MoC. Please refer to CAR#01(a,b) raised above. The assessment team reviewed the LoA and MOC from project participant and confirms consistencies in the details and information of the project participant.	~~CAR#01(a)~~ CAR#01(b)	OK
A.5. Public funding of project activity					



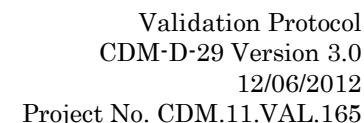
A.5.1.Does the information on public funding provided conform to the actual situation or planning as presented by the project participant(s)?	A.5 of PDD	/DR/	As confirmed in the PDD, the PP has indicated no use of public funding or ODA from Annex-I countries for the project activity. <table><tr><td>Validation 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>NA</td></tr><tr><td>If yes, information regarding public funding is provided?</td><td>NA</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?	NA	If yes, information regarding public funding is provided?	NA	OK	OK
Validation Criteria	Yes/No												
Does project receives any public funding?	No												
Is the funding from Parties included in Annex I to Kyoto Protocol?	NA												
If yes, information regarding public funding is provided?	NA												
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	/DR/	Information provided in section A.5 of the PDD is consistent with Appendix-2.	OK	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	/DR/	NA	OK	OK								
A.6. Debundling of project activity (section for SSC PAs)													
A.6.1. Is it confirmed that proposed project activity is not a debundled component of large scale project activities?	A.6 of PDD	/DR/	Not applicable as the project activity is a large scale project activity	NA	NA								
A.6.2. Is it confirmed that requirements related to Type I projects have been assessed appropriately?		/DR/	Not applicable as the project activity is a large scale project activity	NA	NA								
A.6.3. Is it confirmed that requirements related to transport projects have been assessed appropriately?		/DR/	Not applicable as the project activity is a large scale project activity	NA	NA								
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	NA	Not applicable as the project activity is a large scale project activity	NA	NA								
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	/DR/	The project activity is a grid connected solar energy based power generation project with total installed capacity of 25MW which is eligible to use the approved large scale methodology “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” ACM0002 version 13.0.0. The PDD has correctly identified and applied the approved baseline methodology ACM0002, Version 13.0.0 which is the latest version of applied methodology available at UNFCCC website. The same has been crosschecked using the link below: http://cdm.unfccc.int/methodologies/PAMethodologies/approved <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The number of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The title of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The version of the selected methodology is correct</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The number of the selected methodology is correct	Yes	The title of the selected methodology is correct	Yes	The version of the selected methodology is correct	Yes	OK	OK
Validation Criteria	Yes/No												
The number of the selected methodology is correct	Yes												
The title of the selected methodology is correct	Yes												
The version of the selected methodology is correct	Yes												
B.1.2 Is the reference to any tools, standards or guidelines as required by the methodology provided?	Para 36 of PS	/DR/	The PDD has applied all the relevant tools and guidelines with inconsistent versions of tools as prescribed by applied approved methodology ACM0002 version13.0.0, mentioned in the PDD. The tools used in PDD at the time of uploading of PDD for global stakeholder comments were: 1. Tool for the demonstration and assessment of additionality, version 06.0.0. 2. Tool to calculate project or leakage CO2 emissions from fossil fuel combustion, version 02.2.0 The version and title of tools applied are not consistent and latest as available on UNFCCC website in particular Tool for demonstration and	CAR#04	OK								



			assessment of additionality and Tool to calculate emission factor of an electricity system. Hence CAR#04 is raised. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The title of tools/guidelines/standards is correct</td><td>Yes</td></tr><tr><td>The version of tools/guidelines/standards is correct</td><td>Yes</td></tr></table> In response to corrective action request, the PP has incorporated the required details, which were found consistent. Hence CAR#04 is closed.	Validation Criteria	Yes/No	The title of tools/guidelines/standards is correct	Yes	The version of tools/guidelines/standards is correct	Yes		
Validation Criteria	Yes/No										
The title of tools/guidelines/standards is correct	Yes										
The version of tools/guidelines/standards is correct	Yes										
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	/DR/	The final PDD has applied the latest version of the applied methodology and tool/guidance referenced in methodology. The same has been checked from UNFCCC website. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The selected methodology is valid at request for registration</td><td>Yes</td></tr><tr><td>The reference tools/guidelines/standards/EB decision are applied correctly</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The selected methodology is valid at request for registration	Yes	The reference tools/guidelines/standards/EB decision are applied correctly	Yes	OK	OK
Validation Criteria	Yes/No										
The selected methodology is valid at request for registration	Yes										
The reference tools/guidelines/standards/EB decision are applied correctly	Yes										
B.2. Applicability of methodology and/or Project activity eligibility											

Page 60 of 104



B.2.3 Is the applicability of the selected methodology satisfied/met?	Para 76 of VVS	/DR/	The project activity satisfies the applicability criteria of applied methodology ACM0002, version13.0.0.	OK	OK		
	Para 78, 81 of VVS						
						Validation Criteria	Yes/No
						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						
B.2.4Is it confirmed that the project activity meets the SSC eligibility requirements?	Para 81 of PS B.2 of PDD Para 150 of VVS	/DR/	Not applicable as the project activity is a large scale activity	NA	NA		
B.3. Project boundary							
B.3.1 Does the project boundary include the physical delineation of the proposed CDM project activity?	B.3 of PDD	/DR/ //	The PDD has identified the project boundary as all the power plants connected to NEWNE grid and the solar project employed as project activity. The project boundary including physical delineation of the project activity is presented in PDD. The same was confirmed after site visit.	OK	OK		
						Validation Criteria	Yes/No
						The flow diagram of the project boundary included	Yes
						The flow diagram consistent with the information in section A.3 of PDD	Yes
						The flow diagram indicates the GHG sources included in the project boundary	Yes
						The data and parameters to be monitored are indicated	Yes
						The project boundary information consistent with situation	Yes



			<table><tr><td>observed during physical site visit, if conducted</td><td></td></tr></table>	observed during physical site visit, if conducted											
observed during physical site visit, if conducted															
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	/DR/ /I/	<table><tr><td colspan="2">The PDD clearly mentions all the applicable emission sources and gases related to Project Scenario and baseline scenario in a transparent manner.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The table included for GHG sources included</td><td>Yes</td></tr><tr><td>The inclusion/exclusion is justified for GHG sources in the PDD</td><td>Yes</td></tr></table>	The PDD clearly mentions all the applicable emission sources and gases related to Project Scenario and baseline scenario in a transparent manner.		Validation Criteria	Yes/No	The table included for GHG sources included	Yes	The inclusion/exclusion is justified for GHG sources in the PDD	Yes	Pending on site visit	OK		
The PDD clearly mentions all the applicable emission sources and gases related to Project Scenario and baseline scenario in a transparent manner.															
Validation Criteria	Yes/No														
The table included for GHG sources included	Yes														
The inclusion/exclusion is justified for GHG sources in the PDD	Yes														
B.3.3 Is the project boundary consistent with the observations made during site visit.	Para 83, 84 of VVS	/DR/ /I/	<table><tr><td colspan="2">Yes, the project boundary consistent with the observations made during site visit.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The project boundary is based on objective evidences</td><td>Yes</td></tr><tr><td>The project boundary as defined in the PDD is consistent with the observation made during site visit</td><td>Yes</td></tr><tr><td>The inclusion/exclusion of the GHG sources is based on objective evidences, wherever possible</td><td>Yes</td></tr></table>	Yes, the project boundary consistent with the observations made during site visit.		Validation Criteria	Yes/No	The project boundary is based on objective evidences	Yes	The project boundary as defined in the PDD is consistent with the observation made during site visit	Yes	The inclusion/exclusion of the GHG sources is based on objective evidences, wherever possible	Yes	Pending on site visit	OK
Yes, the project boundary consistent with the observations made during site visit.															
Validation Criteria	Yes/No														
The project boundary is based on objective evidences	Yes														
The project boundary as defined in the PDD is consistent with the observation made during site visit	Yes														
The inclusion/exclusion of the GHG sources is based on objective evidences, wherever possible	Yes														
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	/DR/ /I/	As described in PDD there is no source of GHG emissions occurring within the project boundary as a result of the implementation of the proposed project which are expected to contribute more than 1% of the overall expected average annual ERs. All the machineries and equipments used in the project boundary are to be operated with the renewable sources of energy. The same was confirmed during the site visit and based on the local and sectoral expertise of validation team.	Pending on site visit	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	/DR/	The PDD discuss the identification of most likely baseline scenario correctly as per the approved methodology ACM0002 version 13.0.0. As per the approved methodology version 13.0.0, if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following: <i>“Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”.</i> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied?</td><td>Yes</td></tr><tr><td>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.</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	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.	Yes	OK	OK		
Validation Criteria	Yes/No												
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.	Yes												
B.4.2. Are all potential realistic and credible alternative scenarios listed in the methodology considered in identification of the most reasonable baseline scenario? Are all scenarios reasonable in the context of the proposed CDM project and no reasonable alternative scenario has been excluded?	Para 90 of VVS	/DR/	The applied methodology ACM0002 does not require alternative scenarios to be considered and itself prescribes the baseline scenario for new grid-connected renewable power plant. The identified baseline is in accordance with the requirement stipulated in the applied methodology considering the context of the project activity as greenfield. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The alternative scenarios considered by the project participants and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity.</td><td>Yes</td></tr><tr><td>The identified alternative scenarios are appropriate based on financial expertise, local and sectoral knowledge of the assessment team.</td><td>Yes</td></tr><tr><td>No alternative scenario has been excluded.</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The alternative scenarios considered by the project participants and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity.	Yes	The identified alternative scenarios are appropriate based on financial expertise, local and sectoral knowledge of the assessment team.	Yes	No alternative scenario has been excluded.	Yes	OK	OK
Validation Criteria	Yes/No												
The alternative scenarios considered by the project participants and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity.	Yes												
The identified alternative scenarios are appropriate based on financial expertise, local and sectoral knowledge of the assessment team.	Yes												
No alternative scenario has been excluded.	Yes												



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	/DR/	The applied methodology ACM0002 does not require alternative scenarios to be considered and itself prescribes the baseline scenario for new grid-connected renewable power plant. The identified baseline is in accordance with the requirement stipulated in the applied methodology considering the context of the project activity as Greenfield. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The information (assumptions, calculations, rationales used in the PDD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.</td><td>Yes</td></tr><tr><td>The information (as mentioned above) has been crosschecked from other sources and/or with local expert.</td><td>Yes</td></tr><tr><td>The PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	The information (assumptions, calculations, rationales used in the PDD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.	Yes	The information (as mentioned above) has been crosschecked from other sources and/or with local expert.	Yes	The PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed	NA	OK	OK
Validation Criteria	Yes/No												
The information (assumptions, calculations, rationales used in the PDD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.	Yes												
The information (as mentioned above) has been crosschecked from other sources and/or with local expert.	Yes												
The PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed	NA												
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	/DR/	The national and sectoral policies are not relevant for Indian projects and not a requirement as per the para 27 of EB 55 Report. The EB meeting report is checked by the assessment team and found this agreement to be ok. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>All applicable CDM requirements have been taken into account in the identification of the baseline scenario.</td><td>Yes</td></tr><tr><td>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</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	All applicable CDM requirements have been taken into account in the identification of the baseline scenario.	Yes	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	NA	OK	OK		
Validation Criteria	Yes/No												
All applicable CDM requirements have been taken into account in the identification of the baseline scenario.	Yes												
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	NA												
B.5. Additionality													



B.5.1.Does the PDD clearly demonstrates the additionality using the approach as specified in the methodology and by following all the required steps?	B.5 of PDD	/DR/	In section B.5 of the PDD of the description of the additionality is provided using “Tool for the demonstration and assessment of additionality, Version 6.0.0” which is not the latest version. It also follows the steps as described in applied approved methodology ACM0002, version 13.0.0. Please refer to CAR#04 raised above. The version of guidelines for demonstration of prior consideration used in PDD was not the latest version available on UNFCCC site. Hence CAR#05(a) is raised in this context. <table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>The discussion on additionality is included in the PDD as per the applied methodology and/or tools referred therein</td><td>Yes</td></tr><tr><td>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</td><td>Yes</td></tr><tr><td>The method selected to demonstrate additionality (e.g. investment analysis or barrier analysis) is indicated.</td><td>Yes</td></tr><tr><td>All data used (variables, parameters, data sources, etc.), how the additionality of the project activity is demonstrated, is transparently included in the PDD</td><td>Yes</td></tr><tr><td>If investment analysis is used, list all relevant assumptions and parameters used in the analysis is included.</td><td>Yes</td></tr><tr><td>The benchmark applied, wherever applied, is clearly indicated.</td><td>Yes</td></tr><tr><td>The credible scenarios compared described where cost comparison is used.</td><td>NA</td></tr><tr><td>The barriers are substantiated for key facts, assumptions rationale and credibility in demonstrating additionality.</td><td>NA</td></tr><tr><td>The prior consideration of the CDM in accordance with applicable provisions related to the demonstration of prior consideration of the CDM included.</td><td>Yes</td></tr></table> In response to corrective action request, the PP has incorporated the required details, which were found consistent. Hence CAR#04 and Car#05(a) is closed.	Validation Criteria	Yes/No	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	CAR#04 CAR#05(a)	OK
Validation Criteria	Yes/No																								
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																								



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	/DR/	CAR#05(a,b,c) is raised in this context to ascertain the start date of the project.	CAR#05(a)	OK
			Validation Criteria	Yes/No	
			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	No	
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	/DR/	No, the start date is after the 2nd August 2008; hence this step is not applicable.	OK	OK
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	/DR/	Please refer to CAR#05(a, b, c) raised above.	CAR#05(a)	OK
			Validation Criteria	Yes/No	
			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	Yes	
			The communication between PP and DNA and/or UNFCCC in this regard were found satisfactory	Yes	
			The prior consideration of CDM is demonstrated as per the requirement	Yes	



			Based on the supporting documents and corrections in revised PDD, CAR#05(a,b,c) is closed.												
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	/DR/	The applied methodology ACM0002 version13.0.0 has prescribed the most likely baseline scenario for the renewable energy based grid connected greenfield power plant. Hence the question is not applicable. <table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>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</td><td>NA</td></tr><tr><td>The list contains all plausible alternatives based on local and sectoral knowledge of the validation team</td><td>NA</td></tr><tr><td>The list contains viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity</td><td>NA</td></tr><tr><td>The alternatives comply with all applicable and enforced legislation.</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	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	NA	The list contains all plausible alternatives based on local and sectoral knowledge of the validation team	NA	The list contains viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity	NA	The alternatives comply with all applicable and enforced legislation.	NA	OK	OK
Validation Criteria	Yes/No														
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	NA														
The list contains all plausible alternatives based on local and sectoral knowledge of the validation team	NA														
The list contains viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity	NA														
The alternatives comply with all applicable and enforced legislation.	NA														



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	/DR/	The PP has performed an investment analysis to demonstrate that the project activity is not a financially attractive alternative. The investment analysis follows a Benchmark analysis approach which is in line with the “Tool for the demonstration and assessment of additionality, version-06.0”. PDD describes that the project activity is not financially attractive than other alternatives available. The investment analysis spreadsheet, Emission factor calculation spreadsheet, supportive documents and ER calculation spreadsheet are not provided to validation team & Sensitivity analysis is not in line with the latest “Guidelines on the assessment of investment analysis”, version 5, EB 62. Hence CAR#06 is raised in this context. <table><tr><th>Validation Criteria</th><th>Yes/No</th></tr><tr><td>The latest version of “Guidelines on the assessment of investment analysis” (EB62 Annex5 Version 5) is applied</td><td>Yes</td></tr><tr><td>The proposed project activity would produce no financial or economic benefits other than CDM-related income.</td><td>No</td></tr><tr><td>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)</td><td>NA</td></tr><tr><td>The proposed project activity is less economically or financially attractive than at least one other credible and realistic alternative (Investment Comparison Analysis)</td><td>NA</td></tr><tr><td>The financial returns of the proposed project activity would be insufficient to justify the required investment (Benchmark Analysis)</td><td>Yes</td></tr><tr><td>The investment analysis approach is appropriate in the context of the project activity.</td><td>Yes</td></tr></table> In response to corrective action request, the PP has incorporated the required details and supporting documents, which were found consistent. Hence CAR#06 is closed.	Validation Criteria	Yes/No	The latest version of “Guidelines on the assessment of investment analysis” (EB62 Annex5 Version 5) is applied	Yes	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)	NA	The proposed project activity is less economically or financially attractive than at least one other credible and realistic alternative (Investment Comparison Analysis)	NA	The financial returns of the proposed project activity would be insufficient to justify the required investment (Benchmark Analysis)	Yes	The investment analysis approach is appropriate in the context of the project activity.	Yes	CAR#06	OK
Validation Criteria	Yes/No																		
The latest version of “Guidelines on the assessment of investment analysis” (EB62 Annex5 Version 5) is applied	Yes																		
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)	NA																		
The proposed project activity is less economically or financially attractive than at least one other credible and realistic alternative (Investment Comparison Analysis)	NA																		
The financial returns of the proposed project activity would be insufficient to justify the required investment (Benchmark Analysis)	Yes																		
The investment analysis approach is appropriate in the context of the project activity.	Yes																		



B.5.7. Is the investment analysis complete and accurate?	Para 120 of VVS B.2 of PDD	/DR/	The PP has done investment analysis under the “Guidelines on the assessment of investment analysis”, version 5, EB 62. The investment analysis spreadsheet, Emission factor calculation spreadsheet, supportive documents and ER calculation spreadsheet are not provided to validation team & Sensitivity analysis is not in line with the latest “Guidelines on the assessment of investment analysis”, version 5, EB 62. Hence CAR#06 is raised in this context <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The project has applied investment analysis</td><td>Yes</td></tr><tr><td>The financial indicator selected by the PP is suitable in the context of the project activity</td><td>Yes</td></tr><tr><td>Thorough assessment of all parameters and assumptions used in calculating the financial indicator is conducted</td><td>Yes</td></tr><tr><td>The parameters have been crosschecked against the third party or publicly available sources</td><td>Yes</td></tr><tr><td>The FSR, public announcement and annual financial report, as appropriate, have been reviewed with regards to the project activity and participants.</td><td>Yes</td></tr><tr><td>The correctness of the computation carried out and documented by PP is ensured.</td><td>Yes</td></tr><tr><td>The sensitivity analysis has been conducted to determine under what conditions variations in result would occur and the likelihood of these conditions.</td><td>Yes</td></tr><tr><td>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’</td><td>Yes</td></tr></table> Based on responses, final PDD and revised investment analysis spreadsheet, the validation concludes that investment analysis is complete and accurate. Hence CAR#06 was closed.	Validation Criteria	Yes/No	The project has applied investment analysis	Yes	The financial indicator selected by the PP is suitable in the context of the project activity	Yes	Thorough assessment of all parameters and assumptions used in calculating the financial indicator is conducted	Yes	The parameters have been crosschecked against the third party or publicly available sources	Yes	The FSR, public announcement and annual financial report, as appropriate, have been reviewed with regards to the project activity and participants.	Yes	The correctness of the computation carried out and documented by PP is ensured.	Yes	The sensitivity analysis has been conducted to determine under what conditions variations in result would occur and the likelihood of these conditions.	Yes	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’	Yes	CAR#06	OK
Validation Criteria	Yes/No																						
The project has applied investment analysis	Yes																						
The financial indicator selected by the PP is suitable in the context of the project activity	Yes																						
Thorough assessment of all parameters and assumptions used in calculating the financial indicator is conducted	Yes																						
The parameters have been crosschecked against the third party or publicly available sources	Yes																						
The FSR, public announcement and annual financial report, as appropriate, have been reviewed with regards to the project activity and participants.	Yes																						
The correctness of the computation carried out and documented by PP is ensured.	Yes																						
The sensitivity analysis has been conducted to determine under what conditions variations in result would occur and the likelihood of these conditions.	Yes																						
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’	Yes																						



B.5.8. 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 EB62 Annex 5 EB40 Para40	/DR/	PP has chosen the local commercial lending rates and WACC as appropriate benchmark for the project IRR. This is as per the “Guidelines on the assessment of investment analysis”, version 5, EB 62. The investment analysis spreadsheet, Emission factor calculation spreadsheet, supportive documents and ER calculation spreadsheet are not provided to validation team & Sensitivity analysis is not in line with the latest “Guidelines on the assessment of investment analysis”, version 5, EB 62. Hence CAR#06 is raised in this context <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The project has applied benchmark analysis</td><td>Yes</td></tr><tr><td>The type of benchmark applied is suitable for the type of financial indicator</td><td>Yes</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>Yes</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></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>Yes</td></tr></table> Based on responses, final PDD and revised investment analysis spreadsheet, the validation concludes that investment analysis is complete and accurate. Hence CAR#06 was closed.	Validation Criteria	Yes/No	The project has applied benchmark analysis	Yes	The type of benchmark applied is suitable for the type of financial indicator	Yes	The risk premium, as appropriate, applied in determining the benchmark reflects the risk associated with the project type/activity	Yes	It is reasonable to assume that no investment would be made at a rate of return lower than benchmark.		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’	Yes	CAR#06	OK
Validation Criteria	Yes/No																
The project has applied benchmark analysis	Yes																
The type of benchmark applied is suitable for the type of financial indicator	Yes																
The risk premium, as appropriate, applied in determining the benchmark reflects the risk associated with the project type/activity	Yes																
It is reasonable to assume that no investment would be made at a rate of return lower than benchmark.																	
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’	Yes																



B.5.9. 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	/DR/	The values used in investment decision sourced from DPR. CAR#06 is raised to ascertain the parameters of DPR. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>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</td><td>NA</td></tr><tr><td>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</td><td>NA</td></tr><tr><td>The input values from the FSR are valid and applicable at the time of investment decision</td><td>NA</td></tr><tr><td>The input values have been cross checked, as appropriate, and confirmed by local and sectoral expertise</td><td>NA</td></tr></table> Based on responses, final PDD and revised investment analysis spreadsheet, the validation concludes that investment analysis is complete and accurate. Hence CAR#06 was closed.	Validation Criteria	Yes/No	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	NA	CAR#06	OK
Validation Criteria	Yes/No														
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	NA														
B.5.10. 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	/DR/	Not applicable as the project activity has used Benchmark analysis.	NA	NA										
B.5.11. Is the proposed project type be justified as first-of-its kind?	EB 63 Annex 11	/DR/	Not applicable, as the PDD does not claim about the proposed project activity as first of its kind.	NA	NA										



B.5.12. Is the project activity not common practice, unless proposed as first of its kind?	Para 128 of VVS EB 63 Annex 12	/DR/	The application of CPA is not demonstrated and substantiated as per the guidance given in the applied tool.Hence CAR#07 is raised in this regard.		CAR#07	OK																												
			<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>Yes</td></tr><tr><td>The latest guidance on demonstration of common practice is applied including all steps</td><td>Yes</td></tr><tr><td>The applicable geographical area is defined appropriately taking note of the country specific or not technology</td><td>Yes</td></tr><tr><td>The compliance of Step 4a is confirmed</td><td>Yes</td></tr><tr><td>The compliance of Step 4b is confirmed</td><td>Yes</td></tr><tr><td>It is confirmed that Nall – Ndiff is not greater than 3</td><td>Yes</td></tr><tr><td>It is confirmed that F is not greater than 0.2</td><td>Yes</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>Yes</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>Yes</td></tr><tr><td>The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated</td><td>Yes</td></tr><tr><td>The list of activities considered under Nall and Ndiff is complete and verifiable</td><td>Yes</td></tr><tr><td>The assessment and result of common practice analysis are confirmed by local and sectoral expertise</td><td>Yes</td></tr><tr><td>It is confirmed that project activity is not a common practice and therefore additional</td><td>Yes</td></tr></table>				Validation Criteria	Yes/No	The common practice has been demonstrated as per approved methodology(ies) and applicable tool(s)	Yes	The latest guidance on demonstration of common practice is applied including all steps	Yes	The applicable geographical area is defined appropriately taking note of the country specific or not technology	Yes	The compliance of Step 4a is confirmed	Yes	The compliance of Step 4b is confirmed	Yes	It is confirmed that Nall – Ndiff is not greater than 3	Yes	It is confirmed that F is not greater than 0.2	Yes	The value of Nall – Nidff is greater than 3 and the value of F is greater than 0.2	Yes	The identification of Nall is based on objective evidences and does not include CDM registered and undergoing validation projects	Yes	The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated	Yes	The list of activities considered under Nall and Ndiff is complete and verifiable	Yes	The assessment and result of common practice analysis are confirmed by local and sectoral expertise	Yes	It is confirmed that project activity is not a common practice and therefore additional	Yes
			Validation Criteria	Yes/No																														
			The common practice has been demonstrated as per approved methodology(ies) and applicable tool(s)	Yes																														
			The latest guidance on demonstration of common practice is applied including all steps	Yes																														
			The applicable geographical area is defined appropriately taking note of the country specific or not technology	Yes																														
			The compliance of Step 4a is confirmed	Yes																														
			The compliance of Step 4b is confirmed	Yes																														
			It is confirmed that Nall – Ndiff is not greater than 3	Yes																														
			It is confirmed that F is not greater than 0.2	Yes																														
			The value of Nall – Nidff is greater than 3 and the value of F is greater than 0.2	Yes																														
			The identification of Nall is based on objective evidences and does not include CDM registered and undergoing validation projects	Yes																														
			The identification of Ndiff is based on objective evidences and key distinctions have been clearly explained and substantiated	Yes																														
			The list of activities considered under Nall and Ndiff is complete and verifiable	Yes																														
			The assessment and result of common practice analysis are confirmed by local and sectoral expertise	Yes																														
It is confirmed that project activity is not a common practice and therefore additional	Yes																																	
The assessment team has reviewed the revised PDD and confirms that common practice analysis has been done as per the guidance. Hence CAR#07 is closed.																																		
B.5.13. Is it confirmed that the proposed SSC project activity is additional in accordance with CDM requirements?	Para 158 of VVS	/DR/	The proposed project activity is a large scale project. Hence not applicable		NA	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	/DR/	The PDD has followed the steps specified and correctly applied the equations as per approved baseline and monitoring methodology ACM0002, version-13.0.0 and tool to calculate the emission factor of an electricity system to calculate the baseline emission, version 02.2.1. As per applied approved methodology ACM0002, version 13.0.0, the leakage due to project activity is negligible and not required to be considered. CAR#08 is raised for the following inconsistencies: a) The value of OM, BM and CM are not consistent between PDD and ER spreadsheet. b) The version of CEA database is not in line with the supportive link mentioned while identifying the Operating Margin. c) The approach to calculate baseline emissions is inconsistent as per the methodology expressions <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>Yes</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>Yes</td></tr><tr><td>The methodological choices are explained and justified where methodology allows different default values</td><td>Yes</td></tr><tr><td>The referred tools by the methodology are applied, explained and choices justified, as appropriate</td><td>No</td></tr></table>	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	Yes	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	Yes	The methodological choices are explained and justified where methodology allows different default values	Yes	The referred tools by the methodology are applied, explained and choices justified, as appropriate	No	~~CAR#08(a)~~ ~~CAR#08(b)~~ ~~CAR#08(c)~~	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	Yes																						
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	Yes																						
The methodological choices are explained and justified where methodology allows different default values	Yes																						
The referred tools by the methodology are applied, explained and choices justified, as appropriate	No																						



			Based on corrections in the final PDD and revised CER estimation spreadsheet, the validation concludes that ER calculations are complete and accurate. Hence CAR#08 was closed.			
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	/DR/	The PDD sourced the value of Simple Operating Margin and Build Margin of NEWNE grid from the data published by CEA. The values have been verified from the webpage link provided in PDD and found to be correct.	CAR#08(a)	OK	
			Pending on closure of CAR#08	CAR#08(b)		
			Validation Criteria	Yes/No		CAR#08(c)
			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	Yes		
			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	Yes		
			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.	NA		
			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	No		
			The assumptions and sources used are appropriate, correct and would result in either accurate or otherwise conservative estimate of emission reductions	Yes		



			Based on corrections in the final PDD and revised CER estimation spreadsheet, the validation concludes that ER calculations are complete and accurate. Hence CAR#08 was closed.												
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	/DR/	The steps equation applied to calculate baseline emission, project emission and leakage are as per applied approved methodology. The PDD has calculated the combined margin emission factor from the data published by CEA. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The ex ante calculation of emission reductions (BE, PE and LE) is performed transparently in the PDD</td><td>Yes</td></tr><tr><td>The values applied are consistent with section B.6.2 and B.7.1 for each specific data and/or parameter</td><td>Yes</td></tr><tr><td>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</td><td>Yes</td></tr><tr><td>The ex ante calculations are explained in reproducible manner in Appendix 4 and/or electronics spreadsheet</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The ex ante calculation of emission reductions (BE, PE and LE) is performed transparently in the PDD	Yes	The values applied are consistent with section B.6.2 and B.7.1 for each specific data and/or parameter	Yes	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	Yes	The ex ante calculations are explained in reproducible manner in Appendix 4 and/or electronics spreadsheet	Yes	OK	OK
Validation Criteria	Yes/No														
The ex ante calculation of emission reductions (BE, PE and LE) is performed transparently in the PDD	Yes														
The values applied are consistent with section B.6.2 and B.7.1 for each specific data and/or parameter	Yes														
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	Yes														
The ex ante calculations are explained in reproducible manner in Appendix 4 and/or electronics spreadsheet	Yes														
B.6.4. Is the table to indicate the emission reductions over the crediting period included and correct?	Section B.6.4 of PDD	/DR/	The PDD correctly filled the table to indicate the emission reduction over selected crediting period. The values of annual emission reductions are consistent with other sections of the PDD. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The table is completely and correctly filled</td><td>Yes</td></tr><tr><td>The emission reductions (BE, PE, LE) are consistent with the other places in the PDD (B.6.3, Appendix 4 etc.)</td><td>Yes</td></tr><tr><td>The information in this section is consistent with other sections (e.g. crediting period etc.)</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	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	OK	OK		
Validation Criteria	Yes/No														
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														



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	/DR/	The steps equation applied to calculate baseline emission, project emission and leakage are as per applied approved methodology. The PDD has calculated the combined margin emission factor from the data published by CEA. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>All assumptions and data used by the project participants are listed in the PDD, including their references and sources</td><td>Yes</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>Yes</td></tr><tr><td>All values used in the PDD are considered reasonable in the context of the proposed CDM project activity</td><td>Yes</td></tr><tr><td>The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions</td><td>Yes</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>Yes</td></tr><tr><td>The spreadsheet provided is transparent, unprotected and reproducible</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	All assumptions and data used by the project participants are listed in the PDD, including their references and sources	Yes	All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD	Yes	All values used in the PDD are considered reasonable in the context of the proposed CDM project activity	Yes	The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions	Yes	All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD	Yes	The spreadsheet provided is transparent, unprotected and reproducible	Yes	OK	OK
Validation Criteria	Yes/No																		
All assumptions and data used by the project participants are listed in the PDD, including their references and sources	Yes																		
All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD	Yes																		
All values used in the PDD are considered reasonable in the context of the proposed CDM project activity	Yes																		
The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions	Yes																		
All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD	Yes																		
The spreadsheet provided is transparent, unprotected and reproducible	Yes																		
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	/DR/ //	The monitoring plan in the PDD is in compliance with the applied approved methodology and tool to calculate emission factor of an electricity system. However CAR#09 is raised on following aspects: a) The accuracy and class of export-import meter is not included as per monitoring plan b) Monitoring Frequency and Data archiving procedures for EG facility is not as per the supporting provided by PP. c) PP has not provided details of back up metering system which will be used in case of failure of Main metering system. d) Section B.7.3 of PDD is not consistent with the “Clean Development Mechanism Project Standard”, EB 65, Annex 05, Para No. 56. <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>Yes</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>Yes</td></tr><tr><td>The table is filled correctly and completely for each parameter to be monitored specifying source and applied value</td><td>Yes</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 periodic measurements, the measurement intervals</td><td>Yes</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>Yes</td></tr><tr><td>The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet</td><td>Yes</td></tr></table> The parameters used within project boundary were verified during site visit. The parameters, values & calibration details have been incorporated in final PDD and appropriateness and authenticity of value used is verified during site visit. Hence CAR#09(a,b,c,d) is closed.	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)	Yes	The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)	Yes	The table is filled correctly and completely for each parameter to be monitored specifying source and applied value	Yes	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 periodic measurements, the measurement intervals	Yes	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	Yes	The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet	Yes	~~Pending on site visit~~ ~~CAR#09(a)~~ ~~CAR#09(b)~~ ~~CAR#09(c)~~ ~~CAR#09(d)~~	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)	Yes																		
The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)	Yes																		
The table is filled correctly and completely for each parameter to be monitored specifying source and applied value	Yes																		
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 periodic measurements, the measurement intervals	Yes																		
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	Yes																		
The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet	Yes																		



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	/DR/ /I/	The monitoring plan in the PDD is in compliance with the applied approved baseline and monitoring methodology and does contains all the necessary parameter as per applied methodology and tool to calculate emission factor of an electricity system for estimation of emission reduction within project boundary. However, the parameters used within project boundary need to be verified during site visit. Please refer to CAR#09 raised above in this context. <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>Yes</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> The same has been confirmed during site visit.	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	Yes	The QA/QC procedures as included in the PDD are sufficient to determine the ex post emission reductions and be verified	Yes	~~Pending on site visit~~ CAR#09(a) CAR#09(b) CAR#09(c) CAR#09(d)	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	Yes														
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	/DR/ /I/	All the data/parameters to be mentioned in PDD will be monitored and sampling approach is not applied. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The sampling approach is applied for some monitored parameters</td><td>No</td></tr><tr><td>The sampling approach is allowed by the applied methodology(ies) or applicable tool(s)</td><td>NA</td></tr><tr><td>The sampling is clearly defined in Section B.7.2 of the PDD</td><td>NA</td></tr><tr><td>The sampling approach confirms to “Standard for sampling and surveys for CDM project activities and programme of activities”</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	The sampling approach is applied for some monitored parameters	No	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	OK	OK
Validation Criteria	Yes/No														
The sampling approach is applied for some monitored parameters	No														
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														



B.7.3. Are the other elements of the monitoring plan completely defined?	Para 56 of PS Section B.7.3 of PDD	/DR/	The proposed monitoring plan in section B.7 of the PDD clearly indicates the procedure for collection and archiving of all relevant data necessary for estimation of emission reduction within project boundary during crediting period, which are in compliance with applied approved monitoring methodology. All the parameter included in monitoring plan are feasible to monitor and will lead to real and credible emission reduction calculation.		~~Pending on site visit~~ ~~CAR#09(a)~~ ~~CAR#09(b)~~ ~~CAR#09(c)~~ ~~CAR#09(d)~~	OK
			The information regarding the each monitoring variable is sufficient to ensure the verification of a proper implementation of the monitoring plan.			
			Please refer to CAR#09 raised above in this context			
			Validation Criteria	Yes/No		
			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	Yes		
			The definitions of responsibilities and institutional arrangements for data collection and archiving included in the PDD	Yes		
			QA/QC procedures are defined clearly			
			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	NA		
			The project participant will be able to implement the described monitoring plan	Yes		
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	/DR/	Yes, the start date of the project activity is 28/02/2011 which is the date of signing of EPC contract	OK	OK	
			Validation Criteria			Yes/No
			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			Yes
			The start date of project activity is as per the glossary of CDM and confirms the observations made during site visit			Yes
			The operational lifetime of the project activity is correctly included in the PDD			Yes
			The operational lifetime is in accordance with EB50 Annex15 or from other sources as appropriate.			Yes
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	/DR/	PP has opted the (7*3) 21 years renewable crediting period for the proposed project activity, the start of the crediting period envisaged for the proposed project activity has been assessed by the validation team to be realistic, taking into consideration the time needed for validation.	OK	OK	
			Validation Criteria			Yes/No
			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			Yes
			The length of crediting period is correctly included in PDD as per the type of credit period chosen			Yes
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	/DR/	The proposed project activity doesn't fall under the purview of the Environmental Impact Assessment (EIA) notification 2009 S.O. 3067 (dated 1st December 2009), given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986. Thus, the EIA is not required	OK	OK	



			for this type of project activity in the Host Country. The same has been checked by the assessment team and found correct. http://moef.nic.in/downloads/rules-and-regulations/3067.pdf <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>NA</td></tr><tr><td>Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable</td><td>NA</td></tr><tr><td>The reference is given to the related documentation in PDD</td><td>NA</td></tr></table>	Validation Criteria	Yes/No	An analysis of environmental impacts of the project activity carried out by project participant(s)	NA	Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable	NA	The reference is given to the related documentation in PDD	NA						
Validation Criteria	Yes/No																
An analysis of environmental impacts of the project activity carried out by project participant(s)	NA																
Analysis of such impacts is included in the PDD, including any transboundary impacts, if applicable	NA																
The reference is given to the related documentation in PDD	NA																
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	/DR/	The proposed project activity doesn't fall under the purview of the Environmental Impact Assessment (EIA) notification 2009 S.O. 3067 (dated 1st December 2009), given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986. Thus, the EIA is not required for this type of project activity in the Host Country. The same has been checked by the assessment team and found correct. http://moef.nic.in/downloads/rules-and-regulations/3067.pdf <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>	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	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	/DR/	The local stakeholder meeting was conducted on 30/06/2012 at project sites, which is prior to web hosting of the PDD 15/08/2012. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholder consultation process is done prior to</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The local stakeholder consultation process is done prior to	Yes	OK	OK								
Validation Criteria	Yes/No																
The local stakeholder consultation process is done prior to	Yes																



			<table><tr><td>webhosting of the PDD for GSP</td><td></td></tr></table>	webhosting of the PDD for GSP									
webhosting of the PDD for GSP													
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	Para 65, 66 of PS	/DR/	The stakeholders have been invited through public newspapers. However, CAR#11 is raised for the following inconsistencies: a) Date of Local stakeholder meeting mentioned in PDD is not conclusive(Refer section E1 of PDD) b) The proof of local stakeholders meeting for proposed project activity is not provided (refer para 65,66 ad 69 of PS) c) Supportive to validate local stakeholder such as invitation letter and media used for public notice is not provided. d) MoM of stakeholder process has not been submitted to the DOE. (refer para 139 of VVS 2.0) <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholders were identified appropriately</td><td>Yes</td></tr><tr><td>The local stakeholders were invited in reasonable time</td><td>Yes</td></tr><tr><td>The local stakeholders were invited using appropriate medium</td><td>Yes</td></tr></table> The details of stakeholder consultation process is incorporated in final PDD, the same has been found consistent with supportive provided. Hence CAR#11 is closed.	Validation Criteria	Yes/No	The local stakeholders were identified appropriately	Yes	The local stakeholders were invited in reasonable time	Yes	The local stakeholders were invited using appropriate medium	Yes	CAR#11	OK
Validation Criteria	Yes/No												
The local stakeholders were identified appropriately	Yes												
The local stakeholders were invited in reasonable time	Yes												
The local stakeholders were invited using appropriate medium	Yes												
E.1.3. Is the undertaken stakeholder process described in a complete and transparent manner?	Para 67, 68 of PS 139 of VVS	/DR/	The PDD describes the local stakeholder process and proceedings in a clear and transparent manner. During the stakeholder consultation process the stakeholders had raised the comments relevant to the proposed CDM activity. A summary of the comments received has been included in section E.2 of the PDD. All the comments raised by the stakeholders were responded and resolved successfully. No negative comment has been assessed to the received. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholders were informed appropriately about the</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The local stakeholders were informed appropriately about the	Yes	OK	OK				
Validation Criteria	Yes/No												
The local stakeholders were informed appropriately about the	Yes												



			<table><tr><td>project activity to comment</td><td></td></tr><tr><td>Summary of comments as included in the PDD is complete</td><td>Yes</td></tr></table>	project activity to comment		Summary of comments as included in the PDD is complete	Yes						
project activity to comment													
Summary of comments as included in the PDD is complete	Yes												
E.1.4. Has due account been taken of any stakeholder comments received?	Para 139, 140 of VVS E of PDD	/DR/	The PDD describes the management action towards concern raised by stakeholders. Please refer to CAR#11 raised above <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The comments received from local stakeholders have been considered for due account</td><td>Yes</td></tr><tr><td>The due account taken of all comments is adequate</td><td>Yes</td></tr><tr><td>The information contained in PDD with regard to local stakeholder consultation is adequate.</td><td>Yes</td></tr></table> The revised PDD describes details of management action towards concern raised by stakeholders; the same has been verified from minutes of meetings. Hence CAR#11 is closed.	Validation Criteria	Yes/No	The comments received from local stakeholders have been considered for due account	Yes	The due account taken of all comments is adequate	Yes	The information contained in PDD with regard to local stakeholder consultation is adequate.	Yes		
Validation Criteria	Yes/No												
The comments received from local stakeholders have been considered for due account	Yes												
The due account taken of all comments is adequate	Yes												
The information contained in PDD with regard to local stakeholder consultation is adequate.	Yes												
SECTION F. Approval and authorization													
F.1.1 Has the approval and authorization is indicated correctly?	Para 70, 71 of PS F of PDD	/DR/	The project proponent has applied for letter of approval from the host country. The letter of approval from the Indian DNA has not been obtained <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The letter of approval at GSP of PDD is available</td><td>No</td></tr><tr><td>The information in this regard is included in the PDD</td><td>Yes</td></tr><tr><td>The letter of approval(s) at Request for Registration is available from all identified Parties in the PDD</td><td>No</td></tr></table> The approval and authorization has been verified from the LoA of Host country and found to be in agreement with information contained in PDD.	Validation Criteria	Yes/No	The letter of approval at GSP of PDD is available	No	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	No	CAR#01	OK
Validation Criteria	Yes/No												
The letter of approval at GSP of PDD is available	No												
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	No												



Annex 2: Detailed Findings

Nature of findings:

	CARs	CLs	FARs
Total Number raised	12	01	NA

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#01	Assessment Team	Annex-I, D-32
Non conformities raised			
a) The letter of approval from DNA of host country for proposed project activity for both the project participants b) Signed MoC needs to be provided as per the relevant procedures.			
Project Participant's response		Date: 23/11/2012	
a) The project proponent already applied for host country approval from MOEF (DNA of India) and was invited for a meeting for presenting the project on 16/11/2012. The project proponent has already submitted all the necessary documents to MOEF. However, the letter of approval from MOEF is still awaited from MOEF. Once the LoA is received, the same will forwarded to the DOE. b) The MoC is being forwarded along with the response to the findings.			
Documentation Provided as Evidence by Project Participant			
RDPL_MoC			
Information Verified by Team Leader		Date of review: 04/12/2012	
NA			
Reasoning for not acceptance or close out			
a) HCA from DNA of India for the project activity is pending from PP. The point remains OPEN. b) MoC is pending from PP. The point is OPEN.			
Date of ~~acceptance or non- acceptance~~		Date: 04/12/2012	Status: OPEN
Project Participant's response		Date: 07/12/2012	
a) The HCA is yet to be received from the DNA of India and the same will be provided to the DOE as soon as it is available with us. b) The MoC has been already provided to the DOE.			
Documentation Provided as Evidence by Project Participant			
RDPL_MOC Authentication certificate to validate the signatures in MoC			
Information Verified by Team Leader		Date of review: 10/12/2012	
RDPL_MOC Authentication certificate to validate the signatures in MoC			
Reasoning for not acceptance or close out			



a) The point is OPEN as HCA is pending from PP.		
b) The MoC is signed dated 14/11/2012. Mr. ShrikisanBhutada is authorized signatory from Roha Dyechem Pvt. Ltd. while Mr. Subhendu Biswas is the authorized signatory from First Climate Pvt. Ltd. The signatures and details of Mr. Bhutada and Mr. Biswas was verified from the notarized passport and notarized Company declaration confirming his signature and identity while the signature and details of Mr. Biswas was verified from his passport. The MoC is found to be filled correctly. Hence the Point is CLOSED.		
Date of acceptance or non-acceptance	Date: 10/12/2012	Status: CLOSED
Project Participant's response	Date: 19/12/2012	
a) The HCA from the DNA of India has been provided to the DOE.		
Documentation Provided as Evidence by Project Participant		
HCA dated 12/12/2012(Ref. No.: 4/17/2012-CCC)		
Information Verified by Team Leader	Date of review: 20/12/2012	
HCA dated 12/12/2012(Ref. No.: 4/17/2012-CCC)		
Reasoning for not acceptance or close out		
a) PP had provided the Letter of Approval from host country DNA (India) having reference no: 4/17/2012-CCC dated 12/12/2012 .The letter of approval from respective DNA has been verified by the assessment team, the LoA issued are authentic and acceptable. Hence the point is CLOSED.		
Date of acceptance or non-acceptance	Date: 20/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#02	Assessment Team	Annex-I, D-32
Non conformities raised			
a) The PDD does not use DD/MM/YYYY format for the dates. b) The brief description of the technology (sections A.1) is not complete with reference to applicable provisions related to the description of project activity. c) The name of village mentioned in PDD is not consistent with supportive provided by PP such as DPR, PPA and Purchase Orders and also as witnessed during the SV. d) The geo-coordinates of the project activity in PDD are inconsistent with the supporting documents in particular with details given in prior CDM form. e) Brief description on know-how transferred to the host party is not included in PDD (Refer para 31 of PS)			
Project Participant's response		Date: 23/11/2012	



a) The revised PDD now uses DD/MM/YYYY format for the dates.		
b) The description of the project activity in section A.1 of the PDD has been revised in accordance with “Guidelines for Completing the Project Design Document”, version-01.		
c) The name of village has been made corrected in the revised PDD and made consistent with the PPA, DPR and other supportive documents.		
d) The geo-coordinates of the Project activity in PDD have been made consistent with the supporting documents.		
e) There has been no transfer of technology and know-how in the project activity and the same has been mentioned in the revised PDD.		
Documentation Provided as Evidence by Project Participant		
PDD version 2 dated 22/11/2012		
Information Verified by Team Leader	Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012		
Reasoning for not acceptance or close out		
a) The point is OPEN as the format of dates is still not consistent in DD/MM/YYYY format (section E.2).		
b) Brief description of the technology has been explained in section A.1. However still there are some clarifications sought from PP on the issues listed below: - PP to clarify from where the No. of modules (172728) has been mentioned in PDD. Also the no. of modules is not consistent within the section A.1 and A.3 of PDD. - The yearly average MWh of electrical energy in PDD (39321 MWh) is not consistent with Roha_CER estimation and Roha_IRR_FCIPL spreadsheet. - The annual average reduction (37243 tCO2) in section A.1 of PDD is not consistent with the Roha_CER estimation spreadsheet		
c) Name of village has been corrected and now is consistent with supporting documents such as DPR, Purchase Orders etc. The point is CLOSED.		
d) The point is CLOSED as the geo-coordinates have been made consistent with prior CDM consideration form. Also the geo-coordinates are provided in decimal degrees as well as Degree-minute-second format which are consistent with each other.		
e) The point is CLOSED as there is no technology transfer involved in the project activity. The same has been mentioned in revised PDD version 2 dated 22/11/2012		
Date of ~~acceptance or non-~~ acceptance	Date: 04/12/2012	Status: OPEN
Project Participant’s response	Date: 07/12/2012	
a) The format of dates at all places in PDD has been mentioned in DD/MM/YYYY		
b) - The number of modules has been obtained from the commissioning certificate issued by GEDA and the same has been already mentioned in response to CAR #3. The no of modules is consistent in the previously provided PDD version 2. - The annual electricity generation figures in PDD, ER sheet and IRR sheet have been made consistent with each other. - The annual emission reduction figures have been corrected in the revised PDD.		
Documentation Provided as Evidence by Project Participant		
PDD version 3 dated 07/12/2012		
Information Verified by Team Leader	Date of review: 10/12/2012	
PDD version 3 dated 07/12/2012		



Reasoning for not acceptance or close out		
a) The point is CLOSED as format of date is now made consistent in revised PDD version 3. b) The point is CLOSED as no. of modules in PDD is obtained from GEDA commissioning certificate which was made available to DOE. And is consistent. Yearly average MWh of electricity generation and CER estimation from project has now been made consistent within the revised PDD version 3, IRR and CER sheet.		
Date of ~~acceptance or non-acceptance~~	Date: 10/12/2012	Status:CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#03	Assessment Team	Annex-I, D-32
Non conformities raised			
a) Considering 172,422 solar modules of 145 W (±5%), the total installed capacity comes out to be 25.001190 MW, which is not indicated in the PDD anywhere. Further clarification is required taking note of 6400 mounting structures each capable of accommodating 27 modules provides installed capacity as 25.056 MW. Explanation and suitable correction is required in this regard. b) A flow diagram is not included for the stages between power generation at module to electricity export to grid. c) The description information about the age and average lifetime of the equipment based on manufacturer's specifications is not provided in the PDD.			
Project Participant's response		Date: 23/11/2012	
a) The total number of solar modules installed at site is 172728 of 145 W (±5%) which translates into total power generation capacity of 25.04 MW and the same has been mentioned in section A.3 of the PDD. The number of modules can be verified from the commissioning certificate issued by GEDA. b) A flow diagram has been included in the revised PDD for the stages between power generations at module to electricity export to grid. c) The lifetime of the project activity has been provided in the revised PDD.			
Documentation Provided as Evidence by Project Participant			
PDD version 2 dated 22/11/2012 GEDA letter dated 11/04/2012			
Information Verified by Team Leader		Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012 GEDA letter dated 11/04/2012			
Reasoning for not acceptance or close out			
a) As per commissioning certificate from GEDA dated 11/04/2012, No. of modules installed at the site are 172728 of rating 145 W that corresponds to 25.04 MW. The same has been corrected in revised PDD. However, PP to clarify the variation in capacity of the plant when 6400 mounting structures each capable of accommodating 27 modules provides installed capacity as 25.056 MW. The point is OPEN. b) Flow diagram has been included in revised PDD version 2 from power generation at module end to electricity export to grid. The point is CLOSED. c) The point is CLOSED as lifetime of project activity has been included in the project activity.			
Date of ~~acceptance or non- acceptance~~		Date: 04/11/2012	Status: OPEN



Project Participant's response		Date: 07/11/2012
a) As mentioned in section A.3 of PDD version 2, there are 6400 mounting structures each having a maximum of 27 modules i.e. there are some mounting structures with less than 27 modules. The same has been clarified in the PDD.		
Documentation Provided as Evidence by Project Participant		
PDD version 3 dated 07/12/2012		
Information Verified by Team Leader	Date of review: 10/12/2012	
PDD version 3 dated 07/12/2012		
Reasoning for not acceptance or close out		
a) Corrections has been made in revised PDD and justification given by PP on No. of modules on each mounting structured is accepted by the assessment team. Hence the point is CLOSED.		
Date of acceptance or non-acceptance	Date: 10/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#04	Assessment Team	Annex-I, D-32
Non conformities raised			
The version and title of tools applied are not consistent and latest as available on UNFCCC website in particular Tool for demonstration and assessment of additionality and Tool to calculate emission factor of an electricity system.			
Project Participant's response		Date: 23/11/2012	
The version and title of tools applied have been corrected in the revised PDD and the latest tools available on UNFCCC website have referred in the revised PDD.			
Documentation Provided as Evidence by Project Participant			
PDD version 2 dated 22/11/2012			
Information Verified by Team Leader		Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012			
Reasoning for not acceptance or close out			
The point is CLOSED as the tools have been made consistent with their respective versions and titles. The UNFCCC web reference of each tool has been provided in revised PDD which is working and appropriate.			
Date of acceptance or non-acceptance		Date: 04/11/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
31/10/2012	CAR 05	Assessment Team	Annex-I, D-32
Non conformities raised			

a) The version Guidelines for demonstration and assessment of prior consideration of CDM in the PDD is not the latest version. b) The chronology of the event is not complete with regard to earlier events that occurred viz., PPA and investment decision and preferably the date of DPR as well as later event (construction, commissioning of the project activity) c) The appropriateness of the considered project start date 28/02/2011 needs to be justified in accordance with the glossary of terms with reference to the revised chronology, as appropriate																				
Project Participant's response		Date: 23/11/2012																		
a) The latest version of prior consideration guidance has been referred in the revised PDD. b) The chronology of event has been provided below: <table border="1"> <thead> <tr> <th>Date</th> <th>CDM related Milestone</th> </tr> </thead> <tbody> <tr> <td>09/12/2010</td> <td>Signing of Power purchase agreement</td> </tr> <tr> <td>14/12/2010</td> <td>Appointment of MITCON Consultancy for preparation of DPR</td> </tr> <tr> <td>12/01/2011</td> <td>Submission of DPR by MITCON Consultancy</td> </tr> <tr> <td>21/01/2011</td> <td>Decision to invest in the project</td> </tr> <tr> <td>28/02/2011</td> <td>Contract with EPC contractor Wipro Ecoenergy (i.e. Project start date)</td> </tr> <tr> <td>04/08/2011</td> <td>Notification to UNFCCC about the CDM project activity</td> </tr> <tr> <td>04/08/2011</td> <td>Notification to MOEF about the CDM project activity</td> </tr> <tr> <td>04/03/2012</td> <td>Commissioning of the project activity</td> </tr> </tbody> </table> The chronology of the events in the PDD has been provided in accordance with the "Guidelines on the demonstration and assessment of prior consideration of the CDM", Version 04. c) As per the definition of start date provided in glossary of terms, "In the context of a CDM project activity or PoA, the earliest date at which either the implementation or construction or real action of a CDM project activity or PoA begins." The earliest date when the implementation or construction of the project activity is initiated is the date of signing EPC contract for supply of equipment has been taken as the start date. Hence the date of signing EPC contract has been considered as start date for the project activity.			Date	CDM related Milestone	09/12/2010	Signing of Power purchase agreement	14/12/2010	Appointment of MITCON Consultancy for preparation of DPR	12/01/2011	Submission of DPR by MITCON Consultancy	21/01/2011	Decision to invest in the project	28/02/2011	Contract with EPC contractor Wipro Ecoenergy (i.e. Project start date)	04/08/2011	Notification to UNFCCC about the CDM project activity	04/08/2011	Notification to MOEF about the CDM project activity	04/03/2012	Commissioning of the project activity
Date	CDM related Milestone																			
09/12/2010	Signing of Power purchase agreement																			
14/12/2010	Appointment of MITCON Consultancy for preparation of DPR																			
12/01/2011	Submission of DPR by MITCON Consultancy																			
21/01/2011	Decision to invest in the project																			
28/02/2011	Contract with EPC contractor Wipro Ecoenergy (i.e. Project start date)																			
04/08/2011	Notification to UNFCCC about the CDM project activity																			
04/08/2011	Notification to MOEF about the CDM project activity																			
04/03/2012	Commissioning of the project activity																			
Documentation Provided as Evidence by Project Participant																				
PDD version 2 dated 22/11/2012																				
Information Verified by Team Leader		Date of review: 04/12/2012																		
PDD version 2 dated 22/11/2012																				
Reasoning for not acceptance or close out																				
a) Latest version (EB 62, version 4) of prior consideration guidelines has been used in the revised PDD version 2 dated 22/11/2012 which is correct. Hence the point is CLOSED. b) The chronology of events has been provided by PP which has been crosschecked by DOE from the supporting evidences and thus seems to be accurate. However, PP to include the chronology steps in PDD at relevant section. The point is OPEN. c) The point is OPEN as PP to provide justification in terms of chronology of events by highlighting each step.																				
Date of acceptance or non- acceptance	Date: 04/12/2012	Status: OPEN																		
Project Participant's response		Date: 07/11/2012																		



b) This being a new project activity (i.e. with start date after 2nd August 2008), only relevant chronology of events as per the latest CDM prior consideration guidance has been mentioned in the PDD. c) As mentioned in the above chronology of events the PP first signed the PPA and then appointed MITCON Consultancy for preparation of detailed project report (DPR). Based on the DPR submitted by MITCON Consultancy the PP took the decision to invest in the 25 MW solar power project. Then the PP signed the agreement with Wipro EcoEnergy for supply of equipment and installation and commissioning of power plant for starting the implementation of the project activity. As explained above the date of signing EPC contract for supply of equipment has been taken as the start date as it is the earliest date when the implementation or construction of the project activity is initiated.		
Documentation Provided as Evidence by Project Participant		
PDD version 3 dated 07/12/2012		
Information Verified by Team Leader	Date of review: 10/12/2012	
PDD version 3 dated 07/12/2012 Letter from Wipro Eco Energy dated		
Reasoning for not acceptance or close out		
b) The point is CLOSED as the chronology steps related to prior consideration of CDM has been shown in PDD and are consistent with the supporting provided to DOE. c) PP has signed the contract with Mitcon Consultancy for preparation of DPR for the project activity. Prior to this PP was engaged in discussing with EPC contractors for negotiating the commercial and technical terms. Based on the DPR report, the decision to invest in project activity was taken by the board. PP has submitted the confirm cum certify letter from Wipro Ecoenergy, the EPC contractor for this project stating the various milestones and dates associated with the project. The dates mentioned in letter are consistent with the supporting documents provided and hence based on this the assessment team confirm that the start date of the project activity is 28/02/2011. Hence the point is CLOSED.		
Date of acceptance or non-acceptance	Date: 10/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#06	Assessment Team	Annex-I, D-32
Non conformities raised			

- a) The source and validity of the input values considered at the time of investment decision with regard to benchmark determination are not indicated. In particular, the default ROE was not available at the time of investment decision and value applied for the inflation is based on 5 years forecast by RBI as against the requirement for the crediting period. In this context, how the value of the benchmark is suitable at the time of investment decision.
- b) In the IRR spreadsheet, the sources and references of the input values are not indicated in particular the relevant dates and/or appropriate web references
- c) Substantiate how the PLF is in accordance with EB48 Annex11 and provide justification with regard to variation from the published tariff order at the time of investment decision
- d) The justification for considering the administrative expenses as 0.1% of revenue considering these expenses are already covered as 8.27 lacs/MW/annum and more importantly its relation to the revenue generated from the project activity.
- e) Justification for considering financing cost as 1.15% of loan amount
- f) Justification and appropriateness of the pre-operative expenses considered. Further, its consideration as depreciation under IT calculations.
- g) Justification for considered 1% degrading in particular when the tariff order did not prescribed it and variation in its application between PDD and IRR spreadsheet
- h) The inconsistency of the project cost between DPR and its reflection in the PDD and corresponding IRR spreadsheet. Please also furnish the quotations which were latest at the time of investment decision to which the contract is awarded later along with the details of actual expenditure (considering the project is already commissioned and operational at the time of SV)
- i) The inconsistencies in the IRR spreadsheet, e.g. cash flows shown beyond technical lifetime of PA, formulae or referencing error at certain places, year wise depiction in the IRR worksheet
- j) Justification for variation in O&M expenses, annual escalation of O&M expenses, insurance charges with respect to the values indicated for these items as per GERC solar order 2010
- k) Link to item depreciation rate of Plant and Machinery is not consistent with the values applied
- l) Substantiation of depreciation, IT tax rate used in the PDD and IRR spreadsheet
- m) The clarification with regard to inclusion of risk free rate in benchmark spreadsheet in particular when it is not applied anywhere.
- n) Please define how the parameters for sensitivity analysis were selected as per requirement and how the range has been assumed to be reasonable
- o) Justification for considering of 325 million INR per year as taxable income from other business.

Project Participant's response

Date: 23/11/2012

- a) The source and validity of the input values considered at the time of investment decision with regard to benchmark determination has been clearly indicated in the benchmark calculation spreadsheet. Though the default ROE approved by the EB was not available at the time of investment decision, the meth panel proposed the default values in November 2010 i.e. before the decision making of the project. As per the guidance, *"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. If this information is not available, the target inflation rate of the central bank shall be used. If this information is also not available, then the average forecasted inflation rate for the host country published by the IMF (International Monetary Fund World Economic Outlook) or the World Bank for the next five years after the start of the project activity shall be used."* Since the inflation forecast of the central bank (i.e. RBI) is not available for the entire crediting period and the target inflation rate of RBI is also not available, the inflation rate has been obtained from IMFWEQ database.
- b) In the revised IRR spreadsheet, the sources and references of the input values has been indicated with relevant dates and appropriate web references wherever relevant.
- c) The PLF of the project activity has been determined as per 3(b) of EB48 Annex11 which states "The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)". The PLF considered for the project is based on the site assessment done by

a engineering company 'Mitcon Consultancy' appointed by the project proponent and it was the only assessment report (specific to the site) available to PP during decision making time. Though GERC order 2010 mentions 20 % PLF, in 2012 tariff order GERC themselves corrected it to 18% based on the feedback received from various project developers to consider the PLF taking into account the output guarantees from module suppliers. The O&M contract of the project activity also mentions a power generation figure corresponding to PLF of around 18.26%. Thus the PLF considered in the project activity is justified. Moreover, even after considering 20% PLF as suggested by GERC order, 2010 the project activity remains additional.	
d) The administrative expense has been considered based on the values provided in the DPR. The administrative expense is insignificant in terms of the total project coat and does not have any notable impact on the financials. However the administrative expense has been removed from the revised financials.	
e) The financing cost has not been considered in the revised IRR calculations.	
f) The pre-operative costs have been obtained from the DPR which assumed 2.5% of the project cost as pre-operative expense. Moreover, the overall project cost considered in the project activity is Rs.15.14 crore/MW whereas the GERC 2010 order considers a project cost of Rs.16.5 crore/MW and hence the project cost is well below the GERC benchmark. However, the actual project cost with breakup is being submitted to the DOE along with the response to findings. As per international accounting practice, Preliminary & Pre-operative expense, contingency and IDC has been allocated between land, building and plant & machinery and has been capitalized accordingly. This has been done based on the understanding that apart from land all other cost components will depreciate.	
g) Degradation of 1% has been considered based on the values provided in the DPR. GERC Solar tariff order 2010 did not consider any degradation of modules but in the solar tariff order of 2012, GERC has corrected the same and considered a performance degradation of 1%. Furthermore, the O&M contract mentions a degradation of 10% for first 10 years and 10% for next 15 years which is almost similar to the figures assumed in the project activity. Hence the degradation of 1% is justified. The value has been consistently applied in revised PDD and IRR spreadsheet.	
h) Project Cost in PDD & IRR sheet has been corrected as there was typographical error in the IDC figure. The variation in the project cost with respect to DPR is because the margin money for working capital has been recalculated in the IRR spreadsheet instead of directly obtaining from DPR. The actual project cost with breakup is being submitted to the DOE along with the response to findings.	
i) The inconsistencies in the IRR spreadsheet with respect to cash flows beyond technical lifetime and other errors have been rectified.	
j) O&M Expenses, annual escalation in O&M expenses, Insurance Charges has been considered as per GERC Solar Order 2010 in the revised IRR spreadsheet.	
k) The link to item depreciation rate of Plant and Machinery has been corrected in the revised PDD and IRR spreadsheet.	
l) All links and sources of depreciation, IT tax rate has been mentioned in the revised PDD and IRR spreadsheet.	
m) The risk free rate has been removed from the benchmark spreadsheet.	
n) The detailed discussion on how the parameters for sensitivity analysis were selected as per guidance and on the range of variation has been provided in the revised PDD.	
o) The value for taxable income from other business has been corrected in line with the latest available annual report (i.e. for 2009-10) at the time of decision making.	
Documentation Provided as Evidence by Project Participant	
PDD version 2 dated 22/11/2012 IRR calculation spreadsheet version 2 dated 22/11/2012 Benchmark calculation spreadsheet version 2 dated 22/11/2012	
Information Verified by Team Leader	Date of review: 04/12/2012



PDD version 2 dated 22/11/2012		
IRR calculation spreadsheet version 2 dated 22/11/2012		
Benchmark calculation spreadsheet version 2 dated 22/11/2012		
Reasoning for not acceptance or close out		
a) PP to provide the meth panel order/paper of November 2010 which proposes the default values for ROE. The point is OPEN. b) The point is OPEN as references for Tariff, Working capital for O&M expenses & receivables is not provided. Also in Project sub sheet, appropriate remarks are not mentioned. c) Based on the justification provided by PP the point is CLOSED. d) The point is CLOSED as administrative expenses has been removed from the IRR calculation spreadsheet version 2 dated 22/11/2012. e) The point is CLOSED as financing fee has been removed from IRR sheet and not been considered in the calculations. f) The assessment team has reviewed the Order No. 2 of 2010 by GERC and confirms that the cost taken by PP is well below the benchmark. PP has submitted the CA certificate for actual cost which gives 0.8% as the Pre operative expenses. Hence the value f 2.5% considered by PP is deemed as conservative. The apportioning of Preoperative expenses for calculation of depreciation is done accordingly. Hence the point is CLOSED. g) Justification given by PP is accepted. Hence point is CLOSED. h) The point is OPEN as the project cost is still inconsistent within the PDD and IRR spreadsheet. i) The point is CLOSED as necessary corrections have been made in the IRR spreadsheet. j) O&M Expenses, annual escalation in O&M expenses, Insurance Charges has been revised as per GERC Solar Order 2010 in the revised IRR spreadsheet. Hence the point is CLOSED. k) The point is OPEN as the link corresponding to depreciation is not consistent with the input values. l) The point is OPEN as the link corresponding to depreciation is not consistent with the input values. m) The point is CLOSED as risk free rate has been removed from the Benchmark sheet. n) The sensitivity analysis has been performed as per the guidance and the parameters selected for sensitivity seems to be reasonable. Hence the point is CLOSED. o) The value of taxable income has been taken from the latest available annual report at the time of decision making and the escalation factor of 5% per year has been added to it which seems to be reasonable. Hence the point is CLOSED.		
Date of acceptance or non- acceptance	Date: 04/12/2012	Status: OPEN
Project Participant's response	Date:	
a) The relevant meth panel report was published in October 2010 which is available in the web-link:http://cdm.unfccc.int/Panels/meth/meeting/10/046/mp46_an10.pdf b) Appropriate references for Tariff, Working capital for O&M expenses & receivables has been provided in the IRR sheet and project cost sub sheet. h) The project cost figures in the PDD have been corrected in line with IRR sheet. k) The links for depreciation have been already corrected in the PDD version 2. l) It is difficult to provide authentic web link for tax rate for past years. Hence it has been mentioned as applicable tax rate in 2009-10.		
Documentation Provided as Evidence by Project Participant		
PDD version 3 dated 07/12/2012		
IRR spreadsheet dated 07/12/2012		
Information Verified by Team Leader	Date of review: 10/12/2012	



PDD version 3 dated 07/12/2012 IRR spreadsheet dated 07/12/2012		
Reasoning for not acceptance or close out		
a) The point is CLOSED as PP has submitted meth panel report (EB 58 dated 26/11/2010) which clearly proposes the default ROE values. The same was available to PP before the decision date (21/01/2011) and has been used in IRR financial calculations. b) Link for depreciation is provided by PP. Hence point is CLOSED. h) The point is CLOSED as project cost has been made consistent within the PDD and IRR sheet. k) Link for depreciation is provided by PP. Hence the point is CLOSED. l) The assessment team has confirmed the applicable income tax rates of the project activity and found the values of IRR spreadsheet to be consistent. Hence the point is CLOSED.		
Date of ~~acceptance or non-acceptance~~	Date: 10/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#07	Assessment Team	Annex-I, D-32
Non conformities raised			
The application of CPA is not demonstrated and substantiated as per the guidance given in the applied tool.			
Project Participant's response		Date: 23/11/2012	
The common practice analysis has been demonstrated in accordance with the applied tool and the facts have been substantiated with supportive document in the revised PDD.			
Documentation Provided as Evidence by Project Participant			
PDD version 2 dated 22/11/2012			
Information Verified by Team Leader		Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012			
Reasoning for not acceptance or close out			
The point is CLOSED as common practice analysis has been performed as per Tool for the demonstration and assessment of additionality, version 06.1.0. The assessment team has cross checked the facts and numbers in analysis form the supporting and evidences and found them to be consistent.			
Date of ~~acceptance or non-acceptance~~		Date: 04/12/2012	Status: CLOSED
Date	Type & Number	Raised by	Reference
18/11/2012	CAR#08	Assessment Team	Annex-I, D-32
Non conformities raised			
d) The value of OM, BM and CM are not consistent between PDD and ER spreadsheet. e) The version of CEA database is not in line with the supportive link mentioned while identifying the Operating Margin. f) The approach to calculate baseline emissions is inconsistent as per the methodology expressions.			
Project Participant's response		Date: 23/11/2012	



a) The value of OM, BM and CM has been made consistent between revised PDD and ER spreadsheet. b) The supportive link for the version of CEA database has been corrected in the revised PDD. c) The approach to calculate baseline emissions has been made consistent with the methodology expressions.		
Documentation Provided as Evidence by Project Participant		
PDD version 2 dated 22/11/2012 ER spreadsheet version 1 dated 09/08/2012		
Information Verified by Team Leader	Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012 ER spreadsheet version 1 dated 09/08/2012		
Reasoning for not acceptance or close out		
a) The point is CLOSED as the value of OM, BM and CM is now consistent within the PDD and ER spreadsheet. b) The point is CLOSED as reference link for CEA database has been made consistent with the CEA version used in revised PDD version 2 dated 22/11/2012 c) The approach to calculate baseline emissions has now been revised and is consistent with the methodology. The point is CLOSED.		
Date of ~~acceptance or non-acceptance~~	Date: 04/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR 09	Assessment Team	Annex-I, D-32
Non conformities raised			
a) The accuracy and class of export-import meter is not included as per monitoring plan b) Monitoring Frequency and Data archiving procedures for EGfacilityis not as per the supporting provided by PP. c) PP has not provided details of back up metering system which will be used in case of failure of Main metering system. d) Section B.7.3 of PDD is not consistent with the “Clean Development Mechanism Project Standard”, EB 65, Annex 05, Para No. 56.			
Project Participant’s response		Date: 23/11/2012	
a) The accuracy class of energy meter has been provided in the revised PDD. b) The monitoring frequency has been revised in the PDD. Data archiving procedures has been considered in line with CDM guidance. c) The details of backup metering system have been mentioned in the revised PDD. d) Section B.7.3 has been revised in line with the “Clean Development Mechanism Project Standard”, EB 65, Annex 05, Para No. 56.			
Documentation Provided as Evidence by Project Participant			
PDD version 2 dated 22/11/2012			
Information Verified by Team Leader		Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012			



Reasoning for not acceptance or close out		
a) The accuracy and class of energy meters is mentioned as 0.2s which is as per CERC(Installation and Operation meters) regulation 2006. The same was also confirmed during the site visit. Hence the point is CLOSED. b) Recording and reporting frequency for EGfacility has been made consistent with the PPA between Roha Dyechem and GUVNL dated 09/12/2012. The point is CLOSED. c) Details regarding the backup metering system has now been incorporated in revised PDD version 2 dated 22/11/2012 under QA/QC procedures. The same is also consistent with the Article 7 of PPA dated 09/12/2012 signed between Roha Dyechem and GUVNL. Hence the point is CLOSED. d) Corrections has been reviewed by the assessment team and found to be in line with "Clean Development Mechanism Project Standard", EB 65, Annex 05, Para No. 56. The point is CLOSED.		
Date of acceptance or non-acceptance	Date: 04/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#10	Assessment Team	Annex-I, D-32
Non conformities raised			
The starting date of crediting period under section C.2 of PDD has already lapsed. Please correct to future and realistic date			
Project Participant's response		Date: 23/11/2012	
The starting date of crediting period has been revised appropriately in the revised PDD.			
Documentation Provided as Evidence by Project Participant			
PDD version 2 dated 22/11/2012			
Information Verified by Team Leader		Date of review: 04/12/2012	
PDD version 2 dated 22/11/2012			
Reasoning for not acceptance or close out			
The point is CLOSED as starting date has been revised.			
Date of ~~acceptance or non-acceptance~~		Date: 04/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CAR#11	Assessment Team	Annex-I, D-32
Non conformities raised			
e) Date of Local stakeholder meeting mentioned in PDD is not conclusive(Refer section E1 of PDD) f) The proof of local stakeholders meeting for proposed project activity is not provided (refer para 65,66 ad 69 of PS) g) Supportive to validate local stakeholder such as invitation letter and media used for public notice is not provided. h) MoM of stakeholder process has not been submitted to the DOE. (refer para 139 of VVS 2.0)			
Project Participant's response		Date:23/11/2012	



a) The sentence has been rephrased in the revised PDD. b) The stakeholder details such as minutes of meeting, list of participants has been already provided to the DOE. c) The newspaper advertisements have been already provided to the DOE. d) The MoM of stakeholder meeting has been already provided to the DOE.		
Documentation Provided as Evidence by Project Participant		
• Minutes of meeting dated 30/06/2012 • Newspaper Invitation (Stakeholder Invitation) dated 21/06/2012 • Attendance Sheet dated 30/06/2012		
Information Verified by Team Leader	Date of review: 04/12/2012	
• Minutes of meeting dated 30/06/2012 • Newspaper Invitation (Stakeholder Invitation) dated 21/06/2012 • Attendance Sheet dated 30/06/2012		
Reasoning for not acceptance or close out		
a) The point is CLOSED as the dates of local stakeholders meeting has now been rephrased and is consistent with the supporting such as newspaper advertisement. b) The point is CLOSED as the supporting to validate the stakeholder meeting (newspaper advertisement) has been cross checked by the assessment team and the date is found to be appropriate and consistent with PDD. Hence the point is CLOSED. c) The point is CLOSED as supportive documents has been received from PP which are found to be OK d) MoM of stakeholder consultation and list of attendance has been submitted by PP. The date of meeting is consistent with newspaper advertisement. Hence the point is CLOSED.		
Date of acceptance or non-acceptance	Date: 04/12/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
18/11/2012	CL#12	Assessment Team	Annex-I, D-32
Non conformities raised			

Following comments were received during the web-hosting of the PDD for global stake holder comments. Therefore clarification is required on the followings-

Compilation of submitted inputs:

SECTION A. Description of project activity

- a) On page 2 PDD indicates, "The project proponent will earmark an amount equal to 2% of the sale proceeds of the CER's for sustainable development, as per regulations of Ministry of Environment and Forests, Government of India since the project is a large scale project. The project proponent intends to spend this amount in social/community development activities." There is no plan how project proponent will going to spend 2% CER money – Our suggestion is that involve the local people in planning and implementing the activities.
- b) Social Well-being: How many skilled/unskilled people from surrounding area will be employed at this project during commissioning and operation?
- c) SECTION E. Local stakeholder consultation: List of stakeholders and minutes of stakeholder meeting is not attached with PDD
- d) SECTION F. Approval and authorization: How can a project proponent led to UNFCCC without getting host country approval?
- e) Selection of Location: Why this location has been chosen for this project?
- f) Impact on surrounding area: Will this project has impact on temperature in surrounding area? What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?
- g) DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project.
- h) 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.
- i) Careful study must be done so that the DPR/FR is not in different versions made and submitted with different purposes to different agencies, which is totally unacceptable, illegal and unethical.
- j) Project owner should show some undertaking letter from bank manager to DOE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DOE at face value, but must be checked independently. While collecting the DPR/FR from banks and other agencies, all DPR/FR pages should be counter signed by Banks and other agencies so that the real DPR/FR given to other parties by the PP/Consultant is same as the one submitted to DOE.
- k) DPR/FR values must be probed fully. DOE must take a written undertaking from the PP/Consultant about the list of parties to whom this DPR/FR is submitted and for what purposes. Then DOE should cross check with all the parties and confirm that the same DPR/FR is submitted to all the parties correctly without any changes. DOE must not accept any reports and undertakings from PP/Consultant. DOE must make independent evaluation and use totally different parties without informing the PP or Consultant to cross check the facts.
- l) 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.
- m) DOE must not entertain this project any more if found the DPR/FR is tampered with at any point in time. PP can not give different DPR's and FR's. They must submit only the one given to Banks and other agencies while obtaining loans and decision making time.

- n) Has the PP considered the CDM revenues while envisaging the project? Without CDM the project was not viable, is it right? This project is having a debt component? Then how bankers or lenders gave the loan? Have the bankers or lenders considered the CDM revenues while agreeing to give loan to this projects? If not this project should be rejected right away by DOE by terminating the contract forthwith. If yes, where is the proof? What is the date of the evidence document from bank? Is this document printed now a days or earlier. DOE to independently check the same. If the document is available from Bank it must be checked from all angles so that it is genuine and not forged and date changed by putting back dated. This is normally done, DOE to be aware of this please. Please check the communication the PP had during that time with banks, emails and postal receipts and the weights and dates mentioned on the receipts. Do not believe in courier bills and receipts since these can be cooked up easily. Insist on government owned postal service receipts only. If the project is fully equity project then on what basis the PP has invested full equity in to the project while considering the CDM revenue? DOE to check the same in detail and bring out the facts. Is there any past record of this PP to invest or not to invest at returns what he is talking about in this project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation.
- o) Is the project equipment purchased second hand equipment or sourced from cheap foreign sources? If yes, the issue must be probed by DOE since invoices will invariably be inflated and forged. Total project costs mentioned by PP will not be the same as originals. Hence no additionality. These facts must be probed in full by DOE by checking all documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst.
- p) From DOE side which auditor has done marketing and business development for acquiring this business of validating this project? With whom he or she was co-ordinating at PP or CER buyer? The same person who has done the marketing and business development to acquire the business do validation or participate in any manner what so ever in the validation process? One cannot do like that. It is against the accreditation rules and norms followed since ages. DOE should send auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please.
- q) If applicable only: Is these machines, equipment was a part of any bundle of CDM activity envisaged and developed earlier. DOE to check the same through independent sources also. Once some bundles are non-additional and getting negative validation from a DOE, PP is rolling out the same project as an individual project which is not a CDM project at all. DOE to verify the same from independent sources and also take undertaking in the form of an affidavit from the PP's that any misrepresentation or false statement with respect this would attract strict legal action from UNFCCC and DOE. Furthermore the registered project must be de-registered in case of any future findings contradicting the submissions made by the project owner.
- r) DOE to be more careful so that this is a genuine CDM project. What is the exact project cost? The project cost is covering what? Each value considered must be validated with proof. The machinery is second hand purchased or fresh and new from an OEM? In either case DOE to check all the quotations, proposals, purchase orders, invoices, way bills, transport bills, proof of payments like bank statements. DOE to check with banks by way of written confirmation the amount transacted, to whom the money is paid, when the money is paid, is the party paid is the correct party as shown in the purchase orders. It may so happen that the values, party names, dates are fabricated and misrepresented in this project. DOE should terminate their contract for this project immediately. This is the only way out to protect the value of CDM process. If the PP is purchasing second hand or second quality equipment and inflating the purchase order values and invoices, this must be probed thoroughly and real values to taken for additionality calculation. Then I'm sure the additionality is not there at all in such a situation.
- s) How is the base line defined in this project? Is Base line hypothetically defined with no proper evidences and proper justification? In such case, DOE cannot take the base line as suggested by the PDD. Please check that there are real emission reductions beyond the real and factual base line. It may so happen that this project qualifies for no CER's. DOE cannot assume values and things as giving by this PP.



Whatever values are considered throughout the project in all documents including the real DPR (not the one prepared for CDM, the one given to the banks and others), they must be validated, verified and double checked. Do not ask PP for DPR. Ask the parties who have been given DPR by the PP. Get directly from the bank and others by each page of the DPR and Feasibility report signed. Such document can be considered as a real DPR or FR. UNFCCC CDM process cannot be degraded by fabricating and misinterpreting the project base line and additionality.

Project Participant's response**Date: 23/11/2012**

- a) The detailed implementation plan has been provided to the village panchayat and district collector and the same has been conveyed to the MoEF. The revised PDD also contains the details of implementation plan.
- b) During construction period more than 200 skilled as well as unskilled workers were employed from surrounding areas by the EPC contractor and other sub contractors. Currently during the operation period more than 40 both skilled and unskilled labors from surrounding area has been employed.
- c) The stakeholders details has been provided to the DOE.
- d) The project proponent has already applied for HCA and the letter of approval is expected shortly. The project activity will be submitted for request for registration after obtaining the HCA.
- e) The land has been allotted by Gujarat Govt.
- f) There will be no increase in temperature in surrounding area due to the project activity. On the contrary the project activity will contribute to mitigation of global warming. There is no negative impact on the environment due to the project activity.
- i) DPR, on the basis of which PP took the investment decision, has been provided to the DOE.
- n) DPR, on the basis of which PP took the investment decision, has been provided to the DOE. The board resolution has also been submitted to the DOE.
- o) Not relevant for the project activity.
- q) Not relevant for the project activity.
- s) The baseline has been determined based on the guidance provided in ACM 0002, version 13.

Documentation Provided as Evidence by Project Participant

PDD version 2 dated 22/11/2012

Information Verified by Team Leader**Date of review: 04/12/2012**

PDD version 2 dated 22/11/2012

Reasoning for not acceptance or close out

- a) The assessment team has reviewed the revised PDD which contains the activities which PP would like to undertake in the identified villages as 2% of revenue earned from sale of CER. Hence the response provided by the PP is justifiable and the point is CLOSED.
- b) During site visit, the assessment team conducted interview with local villagers and stakeholders and confirms that skilled/unskilled people are employed in the project at construction and operation phase. The point is CLOSED.
- c) The assessment team has received list of stakeholders, minutes of meeting and confirms that stakeholders were identified as per Glossary of CDM terms. Moreover, the revised PDD includes details of summary of comments received during stakeholder meeting and how they were addressed. The point is CLOSED.
- d) Based on justification provided by PP, the point is CLOSED.
- e) Land for the project activity has been allotted by Gujarat Power Corporation Ltd (GPCL). The same was checked from the lease deed signed between GPCL and RDPL. GPCL is appointed as a nodal agency for facilitation and implementation for Gujarat Solar policy 2009. Hence the point is CLOSED.
- f) Based on justification provided by PP, the point is CLOSED.
- g) The values in PDD are obtained from DPR which is prepared by third party. The values of PDD, IRR and CER spreadsheet are consistent with the DPR values. Hence the point is CLOSED.
- h) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- i) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- j) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- k) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- l) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- m) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. Hence the point is CLOSED.
- n) Board resolution by PP is submitted to the assessment team which clearly highlights the importance of CDM revenue for the project. The same was cross checked from the Loan sanction letter from ICICI bank which confirms that bank also considered CER revenue while confirming the loan to PP. Hence the point is CLOSED.
- o) The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.
- p) KBS has its business development team, which takes care of getting the projects for the auditors to audit. The auditors have no role in getting the project for validation or in the marketing or business development side of the organisation. The auditors at KBS have signed the impartiality agreement and are not involved in business development side of the organization. Hence the point is CLOSED.
- q) The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.
- r) The assessment team has checked the values in DPR with Loan sanction letter, Declaration certificate from CA, GERC Solar tariff order 2010 and confirms the values are reasonable and appropriate. The project is a greenfield project activity. The same was confirmed by checking the project allotment letter from energy and petrochemical department, EPC contract between PP and Wipro EcoEnergy and further confirmed during site visit. Hence the point is CLOSED.



s) The project activity applies ACM0002 version 13.0.0 which itself prescribes the baseline scenario which is Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”. Hence the point is CLOSED.		
Date of acceptance or non-acceptance	Date: 04/11/2012	Status: CLOSED

Date	Type & Number	Raised by	Reference
23/11/2012	CAR#13	Technical Reviewer	PDD and IRR ER spreadsheets
Non conformities raised			
Please address the following inconsistencies in the PDD and ER spreadsheet			
a) The degradation factor in the ER spreadsheet is 0.1%, which is inconsistent with IRR spreadsheet where it is 1%.			
b) The potential variation in the output (of solar module) i.e. 5% is not reflected in the PDD and IRR spreadsheet under sensitivity.			
Project Participant's response		Date: 23/11/2012	
The PDD and ER spreadsheets have been revised and typographical errors corrected.			
a) The annual degradation factor is corrected to 1% as per DPR in the ER spreadsheet and PDD has been correspondingly updated. The ER values have reduced as a result of this.			
b) The parameter has been included under sensitivity analysis			
Documentation Provided as Evidence by Project Participant			
PDD version 4 dated 23/12/2012			
CER spreadsheet version 3 dated 23/12/2012			
IRR Sheet Roha version 4 dated 23/12/2012			
Information Verified by Team Leader		Date of review: 23/12/2012	
PDD version 4 dated 23/12/2012			
CER spreadsheet version 3 dated 23/12/2012			
IRR Sheet Roha version 4 dated 23/12/2012			
Reasoning for not acceptance or close out			
a) The revised PDD and ER spreadsheets are now consistent and this issue has been closed out.			
b) The parameter is included in the sensitivity range and has been resolved.			
Date of acceptance or non-acceptance		Date: 23/12/2012	Status: CLOSED



Annex 3: Certificate of Competence

Personnel Name:		Ashok Kumar Gautam	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☐
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
Energy industries (renewable/non-renewable sources)	TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar		
Waste handling and disposal	TA 13.1: Waste handling and disposal		
Approved by (Manager C & T)	Mayank Kumar Jain		
Approval date:	12/12/2011		

Personnel Name:		Abhishek Mahawar	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert	☒
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources		
Approved by (Manager C & T)	Mayank Kumar Jain		
Approval date:	06/04/2012		

Personnel Name:		Neeraj Joshi	
Qualified to work as:			
Team Leader	☐	Technical Expert	☒
Validator/Verifier (Trainee)	☒	Financial Expert	☐
Technical Reviewer	☐	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources		
Approved by (Manager C & T)	Mayank Kumar Jain		
Approval date:	01/10/2012		



Personnel Name:		Kaviraj Singh	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☐
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope		Technical Area	
Energy Industries (renewable/non-renewable)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar TA 1.2: Energy generation from renewable energy sources	
Waste handling and disposal		TA 13.1: Waste handling and disposal	
Approved by (Manager C & T)		Mayank Kumar Jain	
Approval date:		12/12/2011	

History of the document

Version	Date	Nature of revision	Reviewed by	Approved by
3.0	05/09/2012	Revised for VVS track	Manager CDM Quality 07/09/2012	Managing Director 10/09/2012
2.0	31/12/2011	Comprehensively revised	Manager CDM Quality 31/12/2011	Managing Director 31/12/2011