



# VALIDATION REPORT

## ACME SOLAR TECHNOLOGIES (GUJARAT) PRIVATE LIMITED

### VALIDATION OF THE

# 15 MW Solar Photovoltaic Power Project at Gujarat

REPORT No. **INDIA-VAL/420.49/2012**

REVISION No. 01

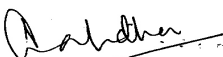
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## VALIDATION REPORT

<b>Date of first issue:</b> 27/07/2012	<b>Organizational unit:</b> Bureau Veritas Certification Holding SAS
<b>Client:</b> ACME Solar Technologies (Gujarat) Private Limited	<b>Client ref.:</b> Mr. Ankur Kumar
<p><b>Summary:</b> Bureau Veritas Certification has made the validation of the 15 MW Solar Photovoltaic Power Project at Gujarat project of ACME Solar Technologies (Gujarat) Private Limited located in Village-Wadgam, Tehsil-Khambat, District-Anand, State-Gujarat, India on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.</p> <p>The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report &amp; Opinion, was conducted using Bureau Veritas Certification internal procedures.</p> <p>The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.</p> <p>In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology AMS I.D. version 17 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.</p>	

<b>Report No.:</b> INDIA-val/420.49/2012	<b>Subject Group:</b> CDM
<b>Project title:</b> <b>15 MW Solar Photovoltaic Power project at Gujarat</b>	
<b>Work carried out by:</b> Anurag Juyal - Team Leader Rakesh Tripathi - Team Member	
<b>Internal Technical Review carried out by:</b>  Mr. H.B. Muralidhar – General Manager Climate Change Services	
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**Indexing terms****Work approved by:**

**Mr. Flavio Gomes**
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APPENDIX A: COMPANY CDM PROJECT VALIDATION PROTOCOL.....



<b>Abbreviations</b>	
BM	Build margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CERs	Certified Emission Reductions
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
FAR	Forward Action Request
GHGs	Green House Gas(es)
GERC	Gujarat Electricity Regulatory Commission
ID	Identification
IRR	Internal Rate of Return
ITR	Internal Technical Review
SEA	State Electricity Account
MP	Monitoring Plan
MW	Mega watt
NCDMA	National CDM Authority
NEWNE	Northern, Eastern, Western, and North-Eastern regional grids



NOC	No objection certificate
OM	Operating margin
PDD	Project Design Document
PLF	Plant Load Factor
PO	Purchase Order
PPA	Power Purchase Agreement
REF	Reference
UNFCCC	United Nations Framework Convention for Climate Change
VVM	Validation and Verification Manual



## 1 INTRODUCTION

ACME Solar Technologies (Gujarat) Private Limited has commissioned Bureau Veritas Certification to validate its CDM project “15 MW Solar Photovoltaic Power Project at Gujarat” (hereafter called “the project”) at Village-Wadgam, Tehsil-Khambhat, District-Anand, State-Gujarat, India.

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

### 1.1 Objective

The validation serves as project design verification and is a requirement of all projects. The validation is an independent third party assessment of the project design. 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 meet the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

### 1.2 Scope

The validation scope 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.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

### 1.3 Validation team

The validation team consists of the following personnel:

\*DR = Document Review; SV = Site Visit; RI = Report issuance



FUNCTION	NAME	CODE HOLDER*	TASK PERFORMED
Lead Verifier	Anurag Juyal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Verifier	Rakesh Tripathi	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input type="checkbox"/> RI
Technical Specialist	-Not applicable-	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Financial Specialist	-Not applicable-	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Internal Technical Reviewer (ITR)	H.B. Muralidhar	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Specialist supporting ITR	-Not applicable-	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Report approval	Flavio Gomes	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input checked="" type="checkbox"/> RI

## 2 METHODOLOGY

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual, issued by the Executive Board at its 55<sup>th</sup> meeting on 30/07/2010. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

### 2.1 Review of Documents

The Project Design Document (PDD) submitted by ACME Solar Technologies (Gujarat) Private Limited and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for Completing the Project Design Document (CDM-PDD), Approved methodology, Kyoto Protocol, Clarifications on Validation Requirements to be Checked by a Designated Operational Entity were reviewed.



To address Bureau Veritas Certification corrective action and clarification requests, ACME Solar Technologies (Gujarat) Private Limited revised the PDD and resubmitted it on 15/06/2012.

The validation findings presented in this report relate to the project as described in the PDD version 02.

## 2.2 Follow-up Interviews

On 21/02/2012 two member validation team of Bureau Veritas Certification conducted the physical site visit of the project activity and performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of ACME Solar Technologies (Gujarat) Private Limited (Project Participant), KPMG (CDM Consultant) and local stakeholders were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

Interviewed organization	Interview topics
ACME Solar Technologies (Gujarat) Private Limited	<ul style="list-style-type: none"> <li>➤ Project design and implementation</li> <li>➤ Technical equipment and operation</li> <li>➤ Compliance with National Laws and regulations</li> <li>➤ CDM consideration</li> </ul>
LOCAL Stakeholders	<ul style="list-style-type: none"> <li>➤ Views and concerns about the project activity.</li> <li>➤ Confirmation of local stakeholder's meeting conducted by ACME solar Technologies (Gujarat) Private Limited</li> </ul>
KPMG, India	<ul style="list-style-type: none"> <li>➤ Technical equipment and operation</li> <li>➤ Baseline determination</li> <li>➤ Monitoring plan</li> <li>➤ GHG calculation</li> <li>➤ Environmental Impacts</li> </ul>

## 2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

Corrective Action Requests (CAR) is issued, where:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The CDM requirements have not been met;



(c) There is a risk that emission reductions cannot be monitored or calculated.

The validation team may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

To guarantee the transparency of the validation process, the concerns raised are documented in more detail in the validation protocol in Appendix A.

## **2.4 Internal Technical Review**

The validation report underwent an Internal Technical Review (ITR) before requesting registration of the project activity.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Lead Verifier provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.

The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the validation exercise, review of sample documents.

The reviewer compiles clarification questions for the Lead Verifier and Validation Team and discusses these matters with Lead Verifier.

After the agreement of the responses on the 'Clarification Request' from the Lead Verifier as well as the PP(s) the finalized validation report is accepted for further processing such as uploading on the UNFCCC webpage.



### 3 VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 05 Corrective Action Requests (CARs) and 09 Clarification Requests (CLs).

The CARs and CLs were closed based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section correspond to the VVM paragraph.

#### 3.1 Approval (49-50)

India is the only party involved in the project activity at this stage and is the host party. The Project participant ACME Solar Technologies (Gujarat) Private Limited, which is a private entity, has obtained an approval (Letter no. 4/6/2012-CCC dated 10<sup>th</sup> October 2012 (Ref P/1/) from DNA of India. The validation team does not doubt the authenticity of the letter of approval as it has been issued on the official letterhead of Ministry of Environment and Forest (Government of India) and signed by Deputy Secretary Climate Change. The validation team confirmed the authenticity of the approval by cross-checking it with the original HCA. The letter of approval clearly states that Government of India has ratified the Kyoto Protocol in August 2002 and the approval is for voluntary participation in CDM project activity. The project title stated in the letter of approval refers to the precise proposed CDM project activity title in the PDD being submitted for registration. Also, the letter of approval mentions that project contributes to the sustainable development in India. The letter is unconditional with respect to the party to the Kyoto Protocol, voluntary participation, contribution to sustainable development and title of project activity. The validation team confirms that the host country approval letter is in accordance with paragraphs 45 – 48 of VVM version 1.2.

At the time of the issuance of the DVR, the host country approval letter was not available with the project participant and hence, the validation team raised CL 1. In response to CL 1, the Project Participant provided a copy of the Host Country Approval Letter issued by Ministry of



Environment and Forest (Government of India) which was cross-checked with its original and hence CL 1 was closed by the validation team.

### 3.2 Participation (54)

The host party for this project is India. India has ratified the Kyoto Protocol on 26th Aug 2002. This was checked from UNFCCC website <http://maindb.unfccc.int/public/country.pl?country=IN>.

The project design document has mentioned ACME Solar Technologies (Gujarat) Private Limited as project participant and this participation is approved by DNA approval letter (Letter no. 4/6/2012-CCC dated 10<sup>th</sup> October 2012 (Ref P/1/)). Hence, the validation team confirms that the participation for project participant has been approved by a Party of the Kyoto Protocol. The validation team does not doubt the authenticity of the letter of approval as it has been issued on the official letterhead of Ministry of Environment and Forest (Government of India) and signed by Deputy Secretary Climate Change. The validation team confirmed the authenticity of the approval by cross-checking it with the original copy of the letter of Approval. The letter of approval clearly states that India has ratified the Kyoto Protocol and the approval is for voluntary participation in CDM project activity. Also, the letter of approval mentions that project contributes to sustainable development.

### 3.3 Project design document (57)

The project activity was web-hosted on the UNFCCC website from 23/12/2011 to 21/01/2012 with Version 1 of the PDD (Ref P/2/) applying the small scale CDM modalities and procedures. The validation team reviewed the web-hosted PDD and observed that:-

- a. National policies and circumstances relevant to the baseline of the project activity were not provided in section B.5 of the Webhosted PDD and hence CAR 1 was raised. CAR 1 was closed when PP revised the PDD and included the National policies and circumstances relevant to the baseline of the project activity in section B.5 of the PDD.
- b. The project participant had not mentioned the maximum length of the first crediting period and its renewal frequency in section C.2.1 of the PDD. Hence CAR 4 was raised. CAR 4 was closed when the PP revised the PDD and updated requisite information in the above said section.
- c. In accordance to Guidance to complete Small scale CDM PDD, date of registration was not mentioned in section C.2.1.1 of the PDD. Hence CAR 5 was raised. CAR 5 was closed when the PP submitted the revised PDD with requisite information in section C.2.1.1 of the PDD.

**De-bundling:**

It was noted during the site visit and during interview with the stakeholders and by referring to the UNFCCC website that there is no registered CDM project activity or no application to register any CDM project activity within one kilometer of the proposed project activity by the same project participant in previous two years. Above validation is as per Guidelines on Assessment of De-bundling for SSC project activities in EB 54, Annex 13.

Following analysis was performed in order to validate the above-statement:

1. The validation team checked CDM Pipeline overview database published by the UNEP Risoe Centre. This is a comprehensive database on the CDM project activities compiled by The UNEP Risoe Centre on Energy, Climate and Sustainable Development (URC)<sup>1</sup>. The validation team confirms that there is no registered CDM project/application to register any CDM project by the project participant
2. The validation team also referred to the other publicly available information on the grid connected solar PV power projects commissioned in the state of Gujarat<sup>2</sup>. The information reveals that, there is no solar PV project being developed by the same project participant.
3. The validation team also carried out the site visit of the project activity on 21/02/2012 and confirms that the project activity is not a de-bundled component of any large project activity.

The assessment presented above confirms that the project activity is not a de-bundled project activity of a large project activity in accordance with the rules defined in Appendix C of Annex II to Decision 4/COP.1 and EB 54, Annex 13. The validation team hereby confirms that the PDD complies with the latest forms of the guidance documents for completion of PDD.

### 3.4 Changes in the Project Activity

There are no changes in the capacity of the project as observed during the on-site visit. The capacity of project observed during site visit is as mentioned in webhosted PDD. The total capacity of the project is 15 MW and the same has been cross checked with the Consent to establish dated 05/09/2011 (Ref P/3/).

The PDD version 02 (Ref P/4/) has following major changes with respect to initial version 1 which was webhosted initially.

<sup>1</sup> <http://uneprisoe.org/>

<sup>2</sup> [http://geda.gujarat.gov.in/media/Solar\\_PV\\_Plants\\_Commissioned\\_in\\_Gujarat.pdf](http://geda.gujarat.gov.in/media/Solar_PV_Plants_Commissioned_in_Gujarat.pdf)



1. Project boundary has been revised which is in line with AMS I.D version 17.
2. Project description has been revised as per the actual scenario observed during the on-site visit on 21/02/2012 by the validation team. The validation team confirms that the revised monitoring plan presents the actual monitoring arrangements of the project design and, that, the monitoring arrangements available at the project site meet the monitoring requirements of the applied small scale methodology AMS-I.D.

### 3.5 Project description (64)

Bureau Veritas Certification recognizes the initiative of the Project Participant in assisting the host country fulfill its goals of promoting sustainable development. The project activity involves the installation and operation of a grid connected 15 MW solar PV based power plant located at Village-Wadgam, Tehsil-Khambhat, District-Anand, State-Gujarat, India. The project activity is connected to the NEWNE regional grid of India.

This project activity generates electricity using renewable sources, and does not result in any net greenhouse gas (GHG) emissions. Thus, this project leads to reduction in GHG emissions that would otherwise have occurred due to operation of conventional fossil fuel based sources in the NEWNE regional grid.

In order to validate completeness and accuracy of project description, on-site visit was performed on 21/02/2012 by a two member validation team to the project site at Village-Wadgam, Tehsil-Khambhat, District-Anand, State-Gujarat, India by two member validation team. The major equipment installed as a part of the project activity as observed during the on-site visit and document review is as follows –

<b>Sr. no.</b>	<b>Specifications</b>	<b>Details</b>	<b>Cross-checking document</b>
PV Modules: There are four types of the Solar PV Modules installed in the project activity. The details of the same with the nominal capacity of each type of the module (based on manufacturer's specifications) is presented below:			
1	Technical specifications of module using Cd-Te Thin film technology (15 MW)	Make: First Solar Type: Cd-Te Thin Film Nominal power: 72.5 Wp No of Modules: 2970 Calculated capacity of the modules 0.215 MWp	Site visit conducted by the validation team and commissioning certificate issued by Gujarat Energy Development Agency (Ref P /5/)
2		Make: First Solar Type: Cd-Te Thin Film	Site visit conducted by the validation team and



		Nominal power: 75 Wp No of Modules: 56790 Total rated capacity of the modules 4.259 MWp	commissioning certificate issued by Gujarat Energy Development Agency (Ref P /5/)
3		Make: First Solar Type: Cd-Te Thin Film Nominal power: 77.5 Wp No of Modules: 70290 Total rated capacity of the modules 5.447 MWp	Site visit conducted by the validation team and commissioning certificate issued by Gujarat Energy Development Agency (Ref P/5/)
4		Make: First Solar Type: Cd-Te Thin Film Nominal power: 80 Wp No of Modules: 63495 Total rated capacity of the modules 5.079 MW	Site visit conducted by the validation team and commissioning certificate issued by Gujarat Energy Development Agency (Ref P/5/)

The capacity of the project activity mentioned in the web hosted PDD is 15 MW and the same has been cross checked with the various statutory clearances obtained from the Government entity (Consent to Establish issued by Gujarat Pollution control Board dated 05/09/2011 (Ref P/3/), Commissioning certificate issued by Gujarat Energy Development Agency (Ref P/5/) and consent to operate issued by Gujarat Pollution control Board dated 23/09/2011 (Ref P/6/)). The validation team has also verified the capacity of the project activity by multiplying the number of modules with rated output of the PV Modules defined by the manufacturer and is tested at standard test conditions (STC) which is in line with the requirement of “*General Guidelines to SSC CDM methodologies*”. The total number of modules of different capacity installed at the plant site is 1,93,545 (as mentioned in above table) and the total installed capacity of the modules comes out to be 15.000 MWp (DC) (as mentioned in above table). Since the project activity has been commissioned and having reviewed the commissioning certificate issued by GEDA (Ref P/5/), the validation team confirms that the capacity of the proposed CDM project activity is 15 MW and will remain within the small-scale limit of Type I projects for entire crediting period.

The validation team has also checked the rated capacity of the inverters installed in the project activity. There are 30 inverters of ABB make with an individual capacity of 500 kW each. Thus, the total rated AC capacity of the project (based on rated inverter capacity) is 15 MW. Since the project activity has been commissioned (Ref P/5/), the validation team confirms that based on the best available information to the validation team at the time of validation, it can be concluded that the capacity of the project will remain within the small-scale limit of Type I projects.



The entire power generated by the project activity will be exported to Gujarat Urja Vikas Nigam Limited which falls under NEWNE grid of India. The grid connectivity was verified by means of the following:

- (a) Power purchase agreement signed with Gujarat Urja Vikas Nigam Limited dated 24/03/2011 (Ref P/7/).
- (b) Actual observations at the site to confirmed the connectivity of the project to the grid.

While reviewing the webhosted PDD it was observed by the validation team that in the web-hosted PDD version 01 the Project participant had mentioned about the technology implemented under the proposed project activity. However, the number of modules installed under each nominal rated capacity of the modules were not provided. Hence, the validation team raised CL 5. In response, Project participant revised the PDD and included the number of modules installed at the site. The same has been cross verified with the commissioning certificate issued by Gujarat Energy Development Agency (Ref P/5/).

Based on the site visit and document review, the validation team hereby confirms that the project description in PDD being submitted for registration (Ref P/4/) is accurate and complete. There are no further changes to the project activity/design or boundary.

### **3.6 Baseline and monitoring methodology**

#### **3.6.1 General requirement (76-77)**

The Project uses the approved baseline and monitoring methodology AMS I.D Version 17 – “*Grid Connected renewable electricity Generation.*”

The steps taken to assess the relevant information contained in the PDD against each applicability condition are described below.

**Applicability condition (1): *This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:***

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

Steps taken for assessment – The proposed CDM project activity is a solar PV power project and the same was verified through physical verification during site visit on 21/02/2012 as described in section 3.5 of this report above. The proposed CDM project activity displaces grid electricity from NEWNE, which is a national grid of host country. The grid

connectivity was verified during site visit and contractual agreement for sale of electricity (Power Purchase Agreement) signed with Gujarat Urja Vikas Nigam Limited (Ref P/7/). This applicability condition is satisfied by the proposed CDM project activity.

**Applicability condition (2): Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2 below.**

**Table 2: Applicability of AMS-I.D, AMS-I.F and AMS-I.A based on project types**

	<b>Project type</b>	<b>AMS-I.A</b>	<b>AMS-I.D</b>	<b>AMS-I.F</b>
1	<b>Project supplies electricity to a national/regional grid</b>		√	
2	<b>Project displaces grid electricity consumption (e.g. grid import) and/or captive fossil fuel electricity generation at the user end (excess electricity may be supplied to a grid)</b>			√
3	<b>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</b>		√	
4	<b>Project supplies electricity to a mini grid system where in the baseline all generators use exclusively fuel oil and/or diesel fuel</b>			√
5	<b>Project supplies electricity to household users (included in the project boundary)</b>	√		



<b><i>located in off grid areas</i></b>			
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Steps taken for assessment – The grid connectivity was verified during site visit on 21/02/2012 and contractual agreement for sale of electricity having reviewed the Power Purchase Agreement signed with Gujarat Urja Vikas Nigam Limited (Ref P/7/).

Since the project activity conforms to option 1 above, hence the methodology AMS-I.D, version 17 is applicable in the project context.

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

Steps taken for assessment – The proposed CDM project activity is a Greenfield plant and involves new installations and operation of new solar PV modules. The same was observed during site visit and interview with Local stakeholders on 21/02/2012. The validation team also confirmed the newness of the solar PV modules (i.e. project activity) by reviewing the Engineering, Procurement and Commissioning Contract dated 19/10/2010 (Ref P/8/). Hence, the validation team confirms that the proposed solar project activity is a grid connected green field solar power plant with installation of new solar PV modules in the project activity and there was no renewable energy power plant at the site prior to the implementation of the project activity. This criterion (applicability condition) is satisfied by the proposed CDM project activity.

**Applicability condition (4): *Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:***

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

Steps taken for assessment – The proposed CDM project activity is a green field solar PV power project and hence this condition is not applicable in the project context. The solar PV project implementation has



been confirmed by the validation team by reviewing the Consent to Operate, Consent to establish and Permission for evacuation of generated Power, which also clearly states the installation of the Solar PV power project. Hence, this condition is not relevant to the proposed CDM project activity.

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

Steps taken for assessment – As described and confirmed in above applicability conditions, the proposed CDM project activity is a solar PV power project and does not involve any non-renewable component. The total installed capacity of the project activity is 15 MW and the same has been verified during the site visit on 21/02/2012. The validation team has also reviewed the commissioning certificate (Ref P/5/) and Power Purchase Agreement (Ref P/7/). These documents also refer to the capacity of the proposed CDM project activity as 15 MW. Thus, the proposed CDM project activity has a rated capacity of 15 MW which is equal to the limiting capacity of 15 MW for small scale CDM project activity. This criterion (applicability condition) is satisfied by the proposed CDM project activity.

**Applicability condition (6): *Combined heat and power (co-generation) systems are not eligible under this category.***

Steps taken for assessment – As described and confirmed in above applicability conditions, the proposed CDM project activity is a solar PV power project and hence involves only electricity generation utilizing solar (renewable) energy. There is not any possibility of co-generation in the proposed CDM project activity. Hence this condition is not applicable in the project context.

**Applicability condition (7): *In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.***

Steps taken for assessment – The proposed CDM project activity is installation of a new grid connected solar PV project activity of capacity 15 MW and the same has been cross-checked with the commissioning certificate (Ref P/5/), Consent to operate issued by Gujarat Energy Development Agency (Ref P/6/) and also a physical verification has been conducted during site visit on 21/02/2012 by validation team. Based on



the commissioning certificate, Consent to operate, Consent to establish and physical verification, the validation team confirms that the proposed CDM project activity is installation of Solar PV project plant at a site where there was no power generation existing prior to the implementation of the proposed CDM project activity. No existence of the power plant prior to the proposed CDM project activity has been cross verified by interviewing the local stakeholders during the on-site visit. Thus, this condition is not relevant to the proposed CDM project activity.

**Applicability condition (8): *In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.***

Steps taken for assessment – The proposed CDM project activity is a Greenfield field project activity as described above and involves the installation of new solar PV modules. Hence this condition does not apply in the project context.

The validation team observed that in section B.2 of the web hosted PDD, justifications for applicability condition 4 and 5 were not appropriate. Hence, the validation team raised a clarification request CL 6. CL 6 was closed when revised PDD submitted by the project participant with proper justification for the applicability criteria appropriate to the type of project and applicability condition.

The validation team hereby confirms that the applied baseline and monitoring methodology AMS-I.D, version 17 (Ref B/1/) is previously approved by the CDM Executive Board, and is applicable to the proposed CDM project activity, which, complies with all the applicability conditions therein.

As stated above, the project capacity is 15 MW, which is equal to the limit of 15 MW as specified in General Guidance to SSC CDM methodologies, Version 17 (Ref B/2/).

### **3.6.2 Project boundary (80)**

The spatial extent of the project boundary is assessed through the description in the web hosted PDD and the grid structure in India as known from the official data available from the Central Electricity Authority, CEA (Ref B/3/). The proposed CDM project activity boundary therefore includes the project power plant i.e. Solar PV power plant including panels, invertors, transformers, substation within the plant, all power plants connected physically to the NEWNE grid through two transmission lines. The validation team confirms that the project boundary illustrated is correct and in accordance with the applied baseline and monitoring methodology.



The electricity imported by the proposed CDM project activity is accounted in the net electricity exported by the project activity viz.  $EG_{BL,y}$ . There are no other sources of project emissions. Hence, in line with the applied baseline and monitoring methodology, project participant has considered project emissions as zero for renewable power generation. Further, the project does not involve any transfer of equipment from or to the proposed CDM project activity and thus there is no leakage accountable to the project activity.

Site visit was performed on 21/02/2012 to the project site at Village-Wadgam, Tehsil-Khambhat, District-Anand, State-Gujarat, India to verify the project details as mentioned in Webhosted PDD (Ref P/2/) and again the same has been cross checked with the commissioning certificate of the project activity issued by Gujarat Energy Development Agency (GEDA) (Ref P/5/) and power purchase Agreement (Ref P/7/).

The project design is sound and the geographical boundaries (Village-Wadgam, Tehsil-Khambhat, District-Anand, State-Gujarat, India) of the project are clearly defined. The commissioning certificate of the proposed CDM project activity (Ref P/5/) was reviewed and the location details in revised PDD are found to be consistent with the commissioning certificate and the power purchase agreement (Ref P/7/).

The validation team confirms that the only greenhouse gas relevant to the project activity is  $CO_2$ . This GHG is addressed by the applied methodology. Based on the above assessment, the validation team hereby confirms that the identified project boundary and the selected sources and gases are well justified for the proposed CDM project activity in accordance with the applied baseline and monitoring methodology.

### **3.6.3 Baseline identification (87-88)**

The steps taken to assess the requirement given in paragraph 81 and 82 of the VVM are described below:

The methodology AMS I D version 17 prescribes the baseline for the proposed CDM project activity applying this methodology. The proposed CDM project activity involves installation of a new grid-connected solar (renewable) energy based power plant/unit. Hence, the baseline scenario is that *the electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid*. The same is in accordance with the paragraph 10 of AMS I D version 17.

The baseline emissions for proposed CDM project activity are the product of electrical energy baseline  $EG_{BL,y}$  expressed in MWh of electricity



produced by the renewable generating unit multiplied by the grid emission factor.

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

Where:

$BE_y$  = Baseline Emissions in year y (t CO<sub>2</sub>)

$EG_{BL, y}$  = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO_2, grid, y}$  = CO<sub>2</sub> Emission Factor of the grid in year y (t CO<sub>2</sub>/MWh)

The CO<sub>2</sub> Emission Factor for the grid can be calculated in a transparent and conservative manner using either of the following options:

- a) Combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the approved methodology “Tool to calculate the emission factor for an electricity system”.

OR

- b) The weighted average emissions (in tCO<sub>2</sub>/MWh) of the current generation mix.

The project participant has chosen option (a) for the determination of grid emission factor. The project participant has used an officially published and publicly available database on operating and build margin emission factors to calculate combined margin emission factor. The version 6 of the CEA database used is as available on the date of webhosting of the PDD for global stakeholder comments (viz. start of validation). This data is published by Central Electricity Authority (CEA) who is the only sole authority for the publication of such data in India. The calculation in this version of CEA database is based on version 2.0 of the “*Tool to calculate the emission factor for an electricity system*” (Ref B/4/). However, the latest available tool applicable to the project activity is “*Tool to calculate the emission factor for an electricity system*” (version 2.2.1) (Ref B/5/).

The validation team compared the latest version of tool (EB 61, Annex 12 - Version 2.2.1) (Ref B/5/) with the version 2.0. The validation team has the following observations:

1. The Baseline Methodology Procedure given in the tool version 2.2.1 contains six steps and the earlier version 2.0 of the tool contains seven steps.



2. The paragraph 2 under Step-1 of the Tool version 2.0 states: “If a connected electricity system is located partially or totally in Annex-I countries, then the emission factor of that connected electricity system should be considered zero”.

3. The paragraph under applicability of the Tool version 2.2.1 states that the tool is applicable if the connected electricity system is not located partially or totally in another Host Country.

The proposed CDM project activity is connected to the NEWNE Grid, which is part of the Indian Regional Grid (electricity system) and this electricity/grid system is not located partially / totally in any Annex I country.

The approach to determine the OM, BM and CM remains similar in both the versions of “Tool to calculate emission factor for an electricity system”. In addition to this, the project participant has chosen to exclude the off-grid power plants in the project electricity system in the calculation of the grid emission factor.

Hence, the CEA database version 6 which is calculated on the basis of “*Tool to calculate the emission factor for an electricity system*” (Version 2.0) can still be used by the project participant. Since, the determination of the emission factor in the CEA database follows all the other steps of the “*Tool to calculate the emission factor for an electricity system*” (Version 2.2.1).

Project participant has applied weighted average factors for the OM and BM as 75% & 25% respectively, as specified in the tool to calculate grid emission factor for an electricity system. Accordingly, the combined margin emission factor value for NEWNE grid is calculated as 0.9487 t CO<sub>2</sub>/MWh. Validation team agrees to this emission factor since it is based on the official background data published by CEA (Central Electricity Authority) which is an official central government agency. The validation team further notes that the emission factors are not provided by DNA but by a competent authority (CEA).

Since, the official database publically available to project participants was calculated on “*Tool to calculate the emission factor for an electricity system*” (Version 2.0), Hence CL 7 was raised. CL 7 was closed when PP explained that the calculation and values of Operating Margin and Built margin will remain same, as discussed above for both the versions of the tool.

Based on the above assessment, the DOE hereby 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.

The validation team hereby confirms that the selected baseline scenario is in accordance with the selected approved baseline and monitoring methodology AMS I.D version 17. Validation team therefore confirms that the selected baseline scenario reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity.

### **3.6.4 Algorithms and/or formulae used to determine emission reductions (92-93)**

The steps taken to assess the requirement outlined in paragraph 89 of the VVM are described below:

The project participant has used the algorithms and formulae in accordance with the applied baseline methodology viz. AMS I.D, Version 17 and "*Tool to calculate emission factor for an electricity system*", Version 2.2.1. The detailed algorithms and/or formulae used in the calculations of baseline emissions and emission reductions are correctly explained in section B.6.1 of the PDD. The validation team confirms that the formulae have been applied correctly in accordance with the applied methodology AMS I.D, Version 17.

#### **Baseline emissions**

As per the requirement of applied methodology AMS-I.D, Version 17, the project participant has calculated the baseline emissions by following Para 11 of methodology AMS I.D i.e. electricity supplied by the proposed CDM project activity multiplied by the combined margin emission factor of NEWNE grid, as reported in section 3.6.3 above. The detailed calculations for the same have been provided under section B.6.3 of the PDD being submitted along with request for registration.

#### **Project Emissions**

The project activity involves electricity generation of the electricity by "renewable source" and hence in accordance with Para 20 of the

methodology AMS-I.D, Version 17, the project emissions are considered as zero. The electricity imported by the project activity has, however, been accounted for by subtracting the import values from gross electricity supplied to the grid. The values of electricity generation used for the calculation of emission reductions therefore represent the “net” electricity fed by the project activity to the grid. This is also in line with the requirement of the methodology.

### **Leakage**

With reference to Para 22 of applied baseline and monitoring methodology AMS I.D, version 17, the proposed CDM project activity does not lead to any leakage emissions since there is no transfer of equipment to or from the project activity boundary. Hence the leakage from project activity is considered to be zero.

### **Emission Reductions**

As per the requirement of applied methodology AMS I.D, Version 17, the project participant has calculated the emission reductions in accordance with Para 23 of the applied methodology. Algorithm and formulae has been included in B.6.1 of the PDD and detailed calculations under section B.6.3 of the PDD.

Validation team assessed the calculations of estimated emission reductions as provided by project participant in an emission reduction spreadsheet (Ref P/9/). The assumptions in this spreadsheet were validated as follows -

<b>Baseline Emissions</b>		
<b>Parameter, Value</b>	<b>Source of information</b>	<b>Validation justification</b>
<b><i>Project Capacity (in MW) = 15 MW</i></b>	Engineering, Procurement and Commissioning Contract (Ref P/8/)	<p>The project capacity is taken as 15 MW from the Engineering, Procurement and Commissioning Contract dated 19/10/2010 (Ref P/8/) and Commissioning Certificate of the project activity issued by Gujarat Energy Development Agency dated 17/03/2012 (Ref P/5/).</p> <p><u>Cross-check-</u> Project capacity has been cross-verified by physical verification during site visit and review of the</p>



		Power Purchase Agreement (Ref P/7/) signed with GUVNL. The validation team found the capacity of the proposed CDM project activity to be correct and consistent.
<b><i>PLF (in %) for the solar Power plant (15 MW) = 19.67%</i></b>	Detail Project report prepared by Sgurr Energy dated Feb 2011 (Ref P/10/)	<p>The PLF value was validated from Detail Project report prepared by third party i.e. Sgurr Energy dated Feb 2011 (Ref P/10/). PLF selected is in accordance with Para 3 (a) of the Guidelines for the reporting and validation of PLF's (Ref B/6/), EB 48, Annex 11 which stipulates that Plant load factors shall be defined ex-ante based on "<i>The plant load factor determined by a third party contracted by the project participants (e.g. An engineering company)</i>". Since the PLF is taken from report prepared by third party, the same has been considered to be correct and well justified and hence is accepted by the validation team.</p> <p><u>Cross check</u> – The validation team cross verified the PLF value from the Gujarat Electricity Regulatory Commission's (GERC) tariff order dated 29/01/2010 (Ref P/11/). The tariff order specifies the value of PLF for solar PV projects as 20% for SPV.</p> <p>Hence, the validation team concluded that the PLF value of 19.67% for the proposed project activity used for the purpose of computing electricity generation would lead to a conservative</p>



		estimate of emission reductions. The validation team would like to reiterate that PLF considered is discussed on the grounds of emission reduction calculations only as the investment analysis for the demonstration of additionality is not applicable to the proposed CDM project activity due to its eligibility under positive list of technologies as per <i>Guidelines on the demonstration of additionality of small-scale project activities</i> (version 09) (Ref B/7/).
<b>Grid</b> <b>EF(tCO<sub>2</sub>/MWh) =</b> <b>0.9487</b>	CEA database ver. 6 (Ref B/3/)	CEA database is an official source of such data available in the host country. This database is also available publicly and hence well justified and accepted by the validation team. .
<b>Project Emissions</b>		
Not applicable since there are no emissions attributable to the proposed CDM project activity within the project boundary.		
<b>Leakage</b>		
Not applicable since there is no transfer of equipment to and from project boundary and hence in accordance with para 22 of the applied methodology, the leakage emissions are considered to be zero.		

The estimated annual average of approximately 24520 tCO<sub>2</sub>e of emission reductions over the entire crediting period represents a reasonable estimation using the assumptions considered by the project participant. All the assumptions for the ex-ante estimation of emission reductions have been considered by the project participant based on official data source in line with relevant EB guidelines. The validation team confirms that the estimates of baseline emissions can be replicated using the information provided. It also can be verified using the emission reductions spreadsheet (Ref P/9/) for calculations of emission reductions.

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

(a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;



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

### **3.7 Additionality of a project activity (97)**

The proposed CDM project is a small scale project activity as per the classification of type I small scale projects provided in General Guidelines to SSC CDM methodologies provided by CDM-EB. Therefore, in accordance with para 28 of the simplified modalities and procedures for small-scale CDM project activities, the additionality of the project activity has been demonstrated using *Guidelines on the demonstration of additionality of small-scale project activities* (additionality tool for small scale project activities). As all requirements specified vide para 28 of the simplified modalities and procedures are complied with by the project activity, this approach has been assessed to be appropriate and well justified for the additionality assessment for this project activity.

The steps taken and sources of information used to cross-check the information contained in the PDD on this matter are described in the subsequent sections from 3.7.1 to 3.7.5 of this report below.

#### **3.7.1 Prior consideration of the clean development mechanism (104)**

##### **Start date**

Project participant (ACME Solar Technologies (Gujarat) Private Limited) provided a copy of the Engineering, Procurement and Commissioning Contract (Ref P/8/) which was placed on 19th October 2010 to ACME Tele Power Limited. By reviewing the EPC contract, the validation team has observed that ACME Solar Technologies (Gujarat) Private Limited (ASTGPL) is a subsidiary of ACME Tele Power Limited (ATPL). Hence, validation team also reviewed the "Agreement for sale and purchase of Solar module between First Solar and ACME Tele Power Limited dated 15th November 2010 (Ref P/12/), which is after the EPC contract between Project participant and ATPL. Validation team also reviewed all other documents related to project implementation and it was observed that there was no other real action before the Engineering, Procurement and Commissioning Contract was placed; and hence the validation team accepted the date of placement of Engineering, Procurement and Commissioning Contract as starting date for the project activity. Accordingly, 19th October 2010, which is the date of placing Engineering, Procurement and Commissioning Contract, is accepted as the starting



date of the project activity. Also, since the project start date is 19<sup>th</sup> October 2010; hence as per EB 62 Annex 13, the following condition applies:

*Project activities with a starting date on or after 2 August 2008, the project participant must inform a Host Party designated national authority (DNA) and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status. Such notification must be made within six months of the project activity start date and shall contain the precise geographical location and a brief description of the proposed project activity, using the standardized form F-CDM-Prior Consideration.*

It was noted by the validation team that initially the project was conceptualized by the holding company viz. ACME Tele Power Limited and they had sent the F-CDM form dated 21/06/2010 (Ref P/13/) to UNFCCC on 22/06/2010, which is within six months of the start date of the project activity i.e. 19/10/2010. The same has been cross verified from the UNFCCC website.

1. The project participant (ACME Tele Power Limited) had intimated UNFCCC on 22/06/2010, which is prior to the start date of the project activity i.e. 19/10/2010 and can be seen on UNFCCC website with following details:

**Location:** - Village: Janshali, Tehsil: Surendra Nagar, State: Gujarat

**Name of Project Participant:** - ACME Tele Power Limited

The project participant (ACME Tele Power Limited) had also signed the Power purchase agreement with Gujarat Urja Vikas Nigam Limited (GUVNL) dated 31<sup>st</sup> May 2010 (Ref P/14/).

Since the project was webhosted with the name of the PP as ACME Solar Technologies (Gujarat) Private Limited, the validation team raised CL 3. In response, project participant explained that the location of the proposed project activity and name of the project participant was changed and the same was also intimated to UNFCCC.

2. The original project participant viz. ACME Tele Power Limited (ATPL) decided to change the name of the project participant to its own subsidiary company ACME Solar Technologies (Gujarat) Private Limited (ASTGPL) and also the location of the project activity. Hence, ATPL signed a supplemental power purchase agreement with ACME Solar Technologies (Gujarat) Private Limited (ASTGPL) and Gujarat Urja Vikas

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Nigam Limited (GUVNL) dated 11<sup>th</sup> October 2010 (Ref P/15/) to transfer the rights and obligations with respect to the PPA to ASTGPL.

The new project participant viz. ACME Solar Technologies (Gujarat) Private Limited also intimated UNFCCC with changed location details on 08/04/2011 (Ref P/16/) which is also within six months from the start date of the project activity i.e. 19/10/2010 with following details:-

**Location:** - Village: Wadgam, Tehsil: Khambhat, District: Anand, State: Gujarat

**Name of Project Participant:** - ACME Solar Technologies (Gujarat) Private Limited

However, the name of the entity mentioned in the F-CDM form was not consistent with the name of the project participant and was mentioned as Moser Baer Clean Energy Limited, which can be traced from UNFCCC website. Hence, the project participant (ACME Solar Technologies (Gujarat) Private Limited) again intimated UNFCCC on 23/08/2011 (Ref P/17/) with all the updated and correct details of the project activity.

Based on the above observation, the validation team closed CL 3 and confirms that the PP (ACME Solar Technologies (Gujarat) Private Limited) intimated UNFCCC on 23/08/2011 with all updated and corrected information, which is applicable to the project activity and Project Participant has seriously considered the CDM revenue for the proposed project activity, as the PP has informed initially about the project activity on 22/06/2010 which is even prior to the start date of the project activity i.e. 19/10/2010. Validation team also confirms that the intimations sent to the UNFCCC on dates 22/06/2010, 08/04/2011 and 23/08/2011 are for same project activity.

The project participant had also informed Indian DNA (host party DNA) regarding commencement of the project activity and of their intention to seek CDM status on 08/04/2011<sup>3</sup> and 23/08/2011. The validation team also cross-checked the email acknowledgement of the intimation sent by the Indian DNA to Project participant on 08/04/2011 and 02/09/2011 respectively.

Thus, the validation team hereby confirms that prior-consideration of CDM has been met for the proposed project activity.

Based on the above assessment, the validation team hereby also confirms that the proposed CDM project activity complies with the requirements of

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<sup>3</sup> As explained above, the name of the PP in the F-CDM form sent on 08/04/2011 to UNFCCC and host party DNA was not correct and hence the intimation was sent again on 23/08/2011.

the latest version of the Guidance on prior consideration of CDM (Ref B/8/).

### 3.7.1.1 Historical information on project timeline

The project start date is 19/10/2010 and in line with EB 62 Annex 13, the PP had informed UNFCCC and the host party DNA regarding the commencement of the project activity and of their intention to seek CDM status even prior to the project activity start date. Hence, historical information on project timeline with respect to any real action prior to start date of project activity is not applicable. The validation team has also validated the project implementation chronology and the same has been detailed in the following table:

S.No.	Date	Project Execution Step	Evidence verified
1.	24/03/2011	Power Purchase Agreement (PPA) signed between (ASTGPL) and Gujarat Urja Vikas Nigam Limited (GUVNL).	The Power Purchase Agreement (Ref P/7/) signed between ACME Solar technologies (Gujarat) private Limited and Gujarat Urja Vikas Nigam Limited (GUVNL).
2.	05/09/2011	Consent to establish (NOC) issued to the project participant from Gujarat Pollution Control Board	Consent to establish issued to the project participant from Gujarat Pollution Control Board (Ref P/3/)
3.	10/09/2011	Local Stakeholder Meeting conducted by the project participant	The minutes of meeting of the local stakeholder meeting (Ref P/18/) and invitation letters to the Local Stakeholders (Ref P/19/)
4.	19/11/2011	Engineering, Procurement and Commissioning contract	Engineering, Procurement and Commissioning contract with ACME Tele Power Limited (Ref P/9/)
5.	17/03/2012	Commissioning Certificate	Commissioning certificate provided by the Gujarat Energy Development Agency (Ref P/5/)

The validation team reiterates that the project start date is 19/10/2010 (date of signing of the Engineering, Procurement and Commissioning contract with ACME Tele Power Limited) and in line with EB 62 Annex 13,



the PP had informed UNFCCC and the host party DNA regarding the commencement of the project activity and of their intention to seek CDM status even prior to the project activity start date (the same has been discussed in the detail under section 3.7.1 of the validation report).

### **3.7.2 Identification of alternatives (107)**

The approved methodology AMS-I.D, version 17 prescribes the baseline scenario, hence as per para 105 of VVM manual, version 1.2 (Ref B/8/), no further analysis on identification of alternatives is required.

### **3.7.3 Investment analysis (114)**

Being a small scale project activity, the project participant has selected *Guidelines on the demonstration of additionality of small-scale project activities* (Ref B/7/) for demonstration of additionality. The same guidelines specify the following criteria:

*The positive list of grid-connected renewable electricity generation technologies that are automatically defined as additional, without further documentation of barriers, consists of the following grid-connected renewable electricity generation technologies of installed capacity up to 15 MW:*

- (a) *Solar technologies (photovoltaic and solar thermal electricity generation);*
- (b) *Off-shore wind technologies;*
- (c) *Marine technologies (wave, tidal).*

Since the proposed project activity is a 15 MW grid-connected solar PV power project, hence it falls under type (a) above and is therefore exempted from demonstration of additionality.

### **3.7.4 Barrier analysis (118)**

*As per Guidelines on the demonstration of additionality of small-scale project activities, the positive list of grid-connected renewable electricity generation technologies that are automatically defined as additional, without further documentation of barriers, consists of the following grid-connected renewable electricity generation technologies of installed capacity up to 15 MW:*

- (a) *Solar technologies (photovoltaic and solar thermal electricity generation);*
- (b) *Off-shore wind technologies;*
- (c) *Marine technologies (wave, tidal).*



Since the proposed project activity is a 15 MW grid-connected solar PV power project, hence it falls under type (a) above and is therefore exempted from demonstration of additionality.

### 3.7.5 Common practice analysis (121)

As per *Guidelines on the demonstration of additionality of small-scale project activities*, the positive list of grid-connected renewable electricity generation technologies that are automatically defined as additional, without further documentation of barriers, consists of the following grid-connected renewable electricity generation technologies of installed capacity up to 15 MW:

- (a) Solar technologies (photovoltaic and solar thermal electricity generation);
- (b) Off-shore wind technologies;
- (c) Marine technologies (wave, tidal).

Since the proposed project activity is a 15 MW grid-connected solar PV power project, hence it falls under type (a) above and is therefore exempted from demonstration of additionality.

### 3.8 Monitoring plan (124)

The PDD includes a monitoring plan based on the approved monitoring methodology AMS-I.D, version 17.

#### Compliance of monitoring plan with monitoring methodology

Paragraph 24 of the methodology AMS-I.D, version 17 lists out the parameters required to be monitored.

The list of parameters identified in the PDD and the source documents reviewed for the same is mentioned below:

#### **Parameters determined ex-ante for the entire crediting period**

Sr. no.	Parameter	Value/ Data unit	Source document
1.	Simple operating margin emission factor ( $EF_{grid,OM,y}$ )	0.9942 tCO <sub>2</sub> e/MWh	CEA CO <sub>2</sub> baseline database version 06. This is an official source of data and hence acceptable.
2.	Build margin emission factor ( $EF_{grid,BM,y}$ )	0.8123 tCO <sub>2</sub> e/MWh	CEA CO <sub>2</sub> baseline database version 06. This is an official source of data and hence

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			acceptable.
3.	CO2 emission factor of southern grid ( $EF_{CO_2,grid,y}$ )	0.9487 tCO <sub>2</sub> e/MWh	Calculated as per Tool to calculate emission factor for an electricity system, version 2.2.1 (Ref B/5/)

The validation team has verified the above value considered against the sources and concludes that the data used are appropriate and conservative in the project context.

**Parameters monitored ex-post**

Sr. no.	Parameter included in the monitoring plan of the PDD	Corresponding parameter in the monitoring plan of the methodology
1.	Quantity of net electricity supplied to the grid as a result of implementation of the CDM project activity in year y ( $EG_{BL,y}$ )	<p>Sr. No. 5, paragraph 24 of AMS-I.D version 17 have specified this parameter to be monitored and estimated as the net electricity generated and supplied to the grid. The parameter <math>EG_{BL,y}</math> is calculated by the difference between <math>EG_{Export,y}</math> and <math>EG_{Import,y}</math> measured at the meters located in the project premises.</p> <p>The validation team confirms that the calculated value of the net supplied to the grid from the project activity is based on the measured values of export and import carried out by high accuracy energy meters with continuous monitoring, at least hourly measurement and at least monthly recording.</p>

The quantity of net electricity supplied to the grid is evacuated through two separate transmission lines. Separate main meters are installed for each transmission line at the substation, which are installed in the project premises. The net electricity supplied to the grid is calculated as difference between net electricity exported by the project activity to the grid and net electricity imported by the project activity. The amount of electricity Exported to the grid and amount of electricity imported by the grid are easily traceable from the SLDC State Energy Account report uploaded on SLDC website issued by GETCO (Gujarat Energy Transmission Corporation Limited).

The validation team hereby confirms that the monitoring plan contains the necessary parameter (as specified above) as required by the monitoring



methodology and the parameter is clearly described in the monitoring plan. The values are considered from relevant sources and the monitoring plan described in the PDD complies with the requirements of the methodology.

### **Feasibility of project design with monitoring plan**

The steps taken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design are described below -

(a) On-site visit - The monitoring procedures described in the PDD were cross-checked by conducting an on-site visit on 21/02/2012. Relevant plant personnel were interviewed (list of persons interviewed detailed below in the report) in-order to understand the project design.

(b) Review of Management and QA/QC procedures – As per the information presented in the PDD submitted for the registration (Ref P/4/) and also observed by conducting interviews on-site, the Project Head and Site personnel are responsible for registration, monitoring, measurement, reporting and reviewing of the data and overall project management.

QA/QC procedures are defined in the monitoring plan for the following parameters –

Sr. no.	Parameter	QA/QC procedures as per the monitoring plan
1.	Quantity of net electricity supplied to the grid as a result of implementation of the CDM project activity in year y ( $EG_{BL,y}$ )	All the meters will have an accuracy class of 0.2s. Calibration of all the meters will be undertaken at least once in three years and faulty meters will be duly replaced immediately. Calibration will be done by an authorized agency or reputed laboratory. All the meters will be sealed by the State utility and will be in control of the State utility. In case the main meter is found faulty or under maintenance the check meter will be used for measuring the net electricity exported, which is a dedicated meter for the project activity installed at the GETCO substation.

During site visit on 21/02/2012, the validation team observed that monitoring plan described in the webhosted PDD does not include the cross-checking mechanism, data uncertainty, emergency preparedness, Calibration frequency. Hence CL 9 was raised. In response, the project participant has submitted the revised PDD with description on cross -



checking mechanism, data uncertainty, emergency preparedness and Calibration frequency related to the monitored parameter. The validation team confirms that the description provided in the revised PDD is relevant and applicable to the project activity and hence the validation team closed CL 9.

Hence, the validation team was able to conclude that the monitoring plan is feasible with the project design and the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions resulting from the proposed CDM project activity can be reported ex-post and verified.

From the above mentioned information the validation team is of the opinion that the project participant is capable of implementing the monitoring plan.

### **3.9 Sustainable development (127)**

The project participant has described the contribution of the project activity to sustainable development on the basis of the four indicators of sustainable development stipulated by DNA of India viz. Ministry of Environment & Forests.

The Project participant had mentioned under Technological well being in section A.2 of the webhosted PDD that “the use of thin film technology for large scale power generation by solar project in the region will demonstrate the viability of such project”, which was not consistent with the scale of the proposed project activity. Hence CL 2 was raised. In response, project participant has explained that the term *large scale* used in the description under technological well being of section A.2 of the PDD was not representing the scale of project as per CDM criteria. However, Project participant has changed the sentence. Based on the revised PDD submitted after the appropriate changes, validation team closed CL 2.

The validation team is of the opinion that the description provided is adequate. The project provides employment to local people and the same was confirmed by meeting local villagers during the on-site visit. The project supplies electricity to the state grid.

The host Party’s DNA confirmed the contribution of the project to the sustainable development of the host Party. The same is described in greater detail in section 3.1 of this report.

### **3.10 Local stakeholder consultation (130)**

The steps taken to assess the adequacy of the local stakeholder consultation are described below:



The local stakeholder's consultation meeting was conducted by Project Participant to receive the comments/suggestions of local stakeholder's on the project activity. Stakeholders' consultation meeting was held on 10/09/2011 (Ref P/18/). The stakeholders were invited to attend the meeting through personal invitations sent in August 2011 (Ref P/19/), thus giving sufficient notice to the stakeholders to attend.

Acknowledged copies of invitation letters were provided to the validation team (Ref P/19/). Also, during the site visit by the validation team to the solar power generation site, interview was conducted with local stakeholders. The local villagers appreciated the project activity. The project has given employment to local residents and the local villagers viewed the project as contributing to local environmental benefits and social-economy. There were no negative comments from the stakeholders regarding the project activity.

The DOE hereby confirms that the process of local stakeholder consultation is observed to be adequate.

### **3.11 Environmental impacts (133)**

As per the Schedule of the EIA notification dated 14<sup>th</sup> September 2006 (Ref B/9/), given by the Ministry of Environment and Forests (Government of India) under the Environment (Protection) Act 1986, EIA is not a regulatory requirement in India for solar PV projects. Thus the project activity doesn't require EIA. The project activity does not involve any negative environmental impacts, as the solar modules are installed for generation of power using solar energy which is a clean source of energy.

## **4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS**

The PDD for the project activity was webhosted from 23<sup>rd</sup> December 2011 to 21<sup>st</sup> January 2012 on the UNFCCC website for global stakeholder's comments as per CDM requirements. The comments received during the webhosting of the project activity have been included in the final validation report. The project participant provided responses to these comments. Validation team took due account of these comments and the respective responses while making the validation opinion. The details of the comments received, responses by the project participant/s and the explanation of how due account of these comments is taken by the validation team are attached as Appendix B with this validation report.

## **5 VALIDATION OPINION**

Bureau Veritas Certification has performed a validation of the "15 MW Solar Photovoltaic Power Project at Gujarat". The validation was performed on the basis of UNFCCC criteria and host country criteria and



also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Project participant used *Guidelines on the demonstration of additionality of small-scale project activities* for demonstration of additionality. The same guideline exempts the project activity from demonstration of additionality and defines the project activity as automatic additional.

By synthetic description of the project, the project is likely to result in reductions of GHG emissions partially. An analysis of the project description demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of 24520 tCO<sub>2</sub>e emission reductions.

The review of the project design documentation (version 02) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of "15 MW Solar Photovoltaic Power Project at Gujarat" as CDM project activity.



## 6 REFERENCES

### Category 1 Documents:

Documents provided by ACME Solar Technologies (Gujarat) Private Limited that relate directly to the GHG components of the project.

- P/1/** Host Country Approval in the name of Acme Solar Technologies (Gujarat) Private Limited
- P/2/** Web-hosted PDD, version 1, dated 14/10/2011
- P/3/** Consent to establish by Gujarat Pollution Control Board dated 05/09/2011
- P/4/** Project Design Document (PDD) version 02, dated 15/06/2012
- P/5/** Commissioning certificate issued by Gujarat Energy Development Agency (GEDA) dated 17/03/2012.
- P/6/** Consent to Operate issued by Gujarat Pollution Control Board dated 23/09/2011
- P/7/** Power Purchase Agreement signed between ASTGPL and Gujarat Urja Vikas Nigam Limited dated 24/03/2011 for change in project location
- P/8/** Engineering, Procurement and Commissioning contract signed with ACME Tele Power Limited dated 19/10/2010
- P/9/** Emission Reduction Spreadsheet
- P/10/** Detail Project Report (DPR) prepared by Sgurr Energy dated Feb 2011
- P/11/** GERC Tariff Order dated 29/01/2010
- P/12/** Agreement of sale and Purchase of solar modules Between ACME Tele Power Limited and First Solar dated 15<sup>th</sup> November 2010
- P/13/** Prior consideration Form (F-CDM form) sent to UNFCCC on 22/06/2010
- P/14/** Power Purchase Agreement signed between GUVNL and ACME Tele Power Limited Dated 31/05/2010
- P/15/** Supplemental Power Purchase Agreement dated 11/10/2010 between ATPL, ASTGPL and GUVNL for change in name of Project Participant from ATPL to ASTGPL
- P/16/** Prior consideration Form (F-CDM form) sent to UNFCCC on 08/04/2011
- P/17/** Prior consideration Form (F-CDM form) sent to UNFCCC on 23/08/2011
- P/18/** Attendance sheet and Minutes of Meeting of Local stakeholder's consultation held on 10/09/2011
- P/19/** Invitation to Local stakeholder's consultation dated August 2011
- P/20/** E-mail Communication between UNFCCC and Project participant
- P/21/** Letter of Engagement, contract for CDM advisory services signed with KPMG India
- P/22/** Manufacturer (First Solar) Module Specification
- P/23/** Sate Electricity Account Report and Invoice for month of April 2012
- P/24/** Undertaking for the change in Location of the project activity
- P/25/** Power Evacuation Clearance issued by Gujarat Energy Transmission Corporation Limited dated 25/03/2011

**Category 2 Documents:**

Background documents related to the design and/or methodologies employed in the design or other reference documents.

- B/1/** AMS-I.D. – Grid connected renewable electricity generation (Version 17)
- B/2/** General Guidelines to SSC CDM methodologies (Version 17)
- B/3/** CEA database Version 06
- B/4/** Tool to calculate the emission factor for an electricity system (Version 2.0)
- B/5/** Tool to calculate the emission factor for an electricity system (Version 2.2.1)
- B/6/** Guidelines for the reporting and validation of Plant load factors (Version 01)
- B/7/** Guidelines on the demonstration of additionality of small-scale project activities (Version 09)
- B/8/** Guidelines on the demonstration and assessment of prior consideration of the CDM (Version 04)
- B/8/** Validation and Verification Manual Version 1.2
- B/9/** EIA Notification dated 14/09/2006

**Persons interviewed:**

List persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

- /1/** Mr. Prem Pal Singh Raghav – VP (Projects) – ASTGPL
- /2/** Mr. Shailesh Kishor Thakur – AVP (Projects) - ASTGPL
- /3/** Mr. Dilip Suthar – Dy. Manager – ASTGPL
- /4/** Mr. Pankaj Sharma – CDM Consultant – KPMG India
- /5/** Mr. Bharat Bhai – Farmer, village - Tada Talav
- /6/** Mr. Jida Bhai – Civil Worker, village – Wadgam
- /7/** Mr. Mangal Bhai – Employed as security at site, village – Wadgam
- /8/** Mr. Abba Bhai – Sarpanch, village Tada Talav



## **7 CURRICULAM VITAE OF THE DOE'S VALIDATION TEAM MEMBERS**

### **Anurag Juyal - Team Leader, Lead Verifier- Climate change**

Mr. Anurag Juyal is a Post-graduate in Energy Systems with around 5 years of experience in the field of climate change services. He is working in Bureau Veritas Certification (India) Pvt. Ltd. as Verifier-Climate Change. Prior to joining Bureau Veritas, he worked on GS/CDM/VCS projects as a consultant. He has received extensive training in CDM validation and verification processes and participated in assessment of CDM projects.

### **Rakesh Tripathi - Team member, Verifier- Climate change**

Mr. Rakesh Tripathi is graduate (B.Tech) in Electronics and communication and Post-graduate (MBA) in Power management with around 2.5 years of experience in the field of climate change services. He is working with Bureau Veritas Certification (India) Pvt. Ltd. as Verifier-Climate Change. Prior to joining Bureau Veritas, he worked on CDM/VCS projects as a consultant. He has received extensive training in CDM validation and verification processes and participated in assessment of CDM projects.

### **H.B. Muralidhar, Bureau Veritas Certification, Internal Technical Reviewer**

Lead auditor in Bureau Veritas Certification for Environment Management System, Quality Management System and Occupational Health and Safety Management System. Graduate in Electrical Engineering with 25 years of experience power generation and distribution related fields as well as in management system auditing. He is the Lead auditor for Environmental Management System, Quality Management system and Occupational Health and Safety Management System. He has undergone intensive training on Clean Development Mechanism. He is the technical expert & conducted Validation / Verification for more than 50 CDM Projects.



## VALIDATION REPORT

**APPENDIX A: COMPANY CDM PROJECT VALIDATION PROTOCOL****Table 1 Validation requirements based on the Clean Development Mechanism Validation and Verification Manual (Version 01.2)**

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>1. Approval</b>			<i>COUNTRY A (India)</i>	<i>COUN TRY B (Not applic able)</i>	
a. Have all Parties involved approved the project activity?	VVM	44	Host Country Approval has not been submitted by the PP.		CL-1
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participatn or directly from the DNA)	VVM	45	Host Country Approval has not been submitted by the PP.		(CL-1)
c. Does the letter of approval from DNA of each Party involved:	VVM	45			
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Host Country Approval has not been submitted by the PP.		(CL-1)
ii. confirm that participation is voluntary?	VVM	45.b	Host Country Approval has not been submitted by the PP.		(CL-1)
iii. confirm that, in the case of the host Party,	VVM	45.c	Host Country Approval has not been		(CL-1)



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the proposed CDM project activity contributes to the sustainable development of the country?			submitted by the PP.		
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Host Country Approval has not been submitted by the PP.	(CL-1)	
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	Host Country Approval has not been submitted by the PP.	(CL-1)	
e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	Host Country Approval has not been submitted by the PP.	(CL-1)	
f. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	Host Country Approval has not been submitted by the PP.	(CL-1)	
g. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	Host Country Approval has not been submitted by the PP.	(CL-1)	
<b>2. Participation</b>			<i>PP1 (ACME Solar Technologies(Gujarat Private Limited)</i>	<i>PP2 (Not Applicable)</i>	
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	The project participant is listed as "ACME Solar Technologies (Gujarat) Private Limited" in the web hosted PDD.	OK	OK
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	Host Country Approval has not been submitted by the PP.	(CL-1)	



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
c. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	The project participant is "ACME Solar Technologies (Gujarat) Private Limited" which is listed in tabular form in section A.3 of the web hosted PDD.	OK	OK
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	The project participant is "ACME Solar Technologies (Gujarat) Private Limited" which is listed in tabular form in section A.3 of the PDD and consistent with contact details provided in annex 1 of the PDD.	OK	OK
e. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)	VVM	52	The only party involved in the proposed CDM project activity is India. The project participant has not submitted the Host Country Approval of the party involved (India) in the project activity.	(CL-1)	
f. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	Host Country Approval has not been submitted by the PP.	(CL-1)	
g. Has the approval of participation issued from the relevant DNA?	VVM	53	Host Country Approval has not been submitted by the PP.	(CL-1)	
h. Is there doubt with respect to (g) above?	VVM	53	Host Country Approval has not been submitted by the PP.	(CL-1)	
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	Host Country Approval has not been submitted by the PP.	(CL-1)	



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>3. Project desing document</b>					
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The DOE has used the web hosted PDD as a basis of for the validation. The web hosted PDD prepared is in accordance with the latest template and guidance i.e. CLEAN DEVELOPMENT MECHANISM PROJECT DESIGN DOCUMENT FORM (CDM-SSC-PDD) Version 03 - in effect as of : 22 December 2006).	OK	OK
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	The web hosted PDD is prepared as per the applicable CDM requirements for completing the PDD i.e. GUIDELINES FOR COMPLETING THE SIMPLIFIED PROJECT DESIGN DOCUMENT (CDM-SSC-PDD) AND THE FORM FOR PROPOSED NEW SMALL SCALE METHODOLOGIES (CDM-SSC-NM), version 5.	OK	OK
c. In CDM-SSC-PDD section A.1 are following provided?	EB 34	Ann 09			
i. Title of project	EB 34	Ann 09	The title of the project activity is provided as "15 MW Solar Photovoltaic Power Project at Gujarat" in section A.1 of the PDD.	OK	OK
ii. Current version number and date of document	EB 34	Ann 09	Current version of the web hosted PDD is mentioned as "1" and date of the PDD as "14/10/2011".	OK	OK
d. In CDM-SSC-PDD section A.2 are following	EB	Ann			



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
provided (max. one page)?	34	09			
i. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, present scenario and baseline.	EB 34	Ann 09	A brief description of the project activity including purpose along with scenario existing prior to the start of the project activity, baseline scenario and present scenario has been provided in section A.2 of the web hosted PDD.	OK	OK
ii. Explanation how the GHG emission reductions are effected.	EB 34	Ann 09	Description of how the GHG emission reduction of the NEWNE grid is effected due to the project activity is provided.	OK	OK
iii. The PP's view on the contribution of project activity to sustainable development.	EB 34	Ann 09	The project participant has provided its views on the contribution of the project activity to sustainable development of the host country in accordance with the host country's NCDMA criteria. However, Technological well being mentions that "the project activity uses thin film CdTe solar photovoltaic technology for large scale power generation thereby demonstrating the viability of the solar based projects in the region" This information is not justifiable with the capacity mentioned in section A.2 of the PDD. Please Clarify	CL 2	
iv. Are there any changes/modifications compared to the webhosted PDD?	EB 34	Ann 09	There are no changes/modifications compared to the webhosted PDD	OK	OK
e. In CDM-SSC-PDD section A.3 are following	EB	Ann			



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
provided in the tabular format?	34	09			
i. List of project participants and Party(ies)	EB 34	Ann 09	PDD indicates the name of "ACME Solar Technologies (Gujarat) Private Limited (Private entity)" as project participant and "India" as (host) party in section A.3 of the PDD.	OK	OK
ii. Identification of host party	EB 34	Ann 09	India has been identified as host party in section A.3 of the PDD.	OK	OK
iii. Indication whether the Party wishes to be considered as project participant	EB 34	Ann 09	It has been indicated that the party does not wish to be considered as project participant.	OK	OK
f. In CDM-SSC-PDD section A.4.1 are following provided?	EB 34	Ann 09			
i. Technical description, location, host party(ies) and address as required?	EB 34	Ann 09	The following details have been provided in section A.4.1 of the PDD related to Location of the project activity Village:- Wadgam, Tehsil:- Khambhat and District:- Anand  Latitude:- 22° 19' 12" N and Longitude:- 72° 25' 48" E The same has been cross checked with the DPR issued on February 2011.	OK	OK
ii. Detailed physical location with unique identification of the project activity (eg. Longitude/latitude) – not to exceed one page	EB 34	Ann 09	Please refer 3.f.i (above)		
g. In CDM-SSC-PDD section A.4.2 are following provided	EB 34	Ann 09			



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. the list of categories of project activities as per the latest categorization of Appendix B to the simplified modalities and procedures for small-scale CDM project activities, hereafter referred to as Appendix B. (refer <a href="http://cdm.unfccc.int/methodologies/SSCMethologies">http://cdm.unfccc.int/methodologies/SSCMethologies</a> )	EB 34	Ann 09	The project participant has provided the project category in accordance with the latest list of categories of Appendix B of the simplified modalities and procedures for small-scale CDM project activities as per followings: <b>Type:</b> Renewable Energy Projects <b>Category:</b> Grid connected renewable electricity generation.	OK	OK
ii. A description of how environmentally safe and sound technology and know how is being applied by the project activity inter alia technology transfer to the Host Party(ies) for application in the project activity	EB 34	Ann 09	The project participant has provided an explicit description of how environmentally safe and sound technology and knowhow is being applied by the project activity inter alia technology transfer to the Host Party(ies) for application in the project activity.	OK	OK
h. In CDM-SSC-PDD section A.4.3 is the estimation of emission reductions provided, as requested, in a tabular format?	EB 34	Ann 09	The estimation of emission reductions provided in section A.4.3 of the PDD in tabular format.	OK	OK
i. In CDM-SSC-PDD section A.4.4 is information regarding Public funding provided?	EB 34	Ann 09	It has been mentioned in section A.4.4 of the PDD that "there is no public funding is availed for the project activity from the parties included in Annex I".	OK	OK
j. In CDM-SSC-PDD section A.4.5 are following provided?	EB 34	Ann 09			
i. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity.	EB 34	Ann 09	The project participant has mentioned that there is neither a registered small-scale CDM project nor a request for registration of a small-scale CDM project is made by the project	OK	OK



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			participant. Having reviewed the UNFCCC web site the validation team also confirms that the proposed CDM project activity is not a debundled component of a large project activity.		
ii. Indication if there is a registered small-scale project activity under the CDM or an application to register another small-scale project activity under the CDM	EB 34	Ann 09	This is a first CDM project activity of the project participant and there is neither a registered project nor an application to register a small-scale project is made by the project participant Hence, this is not required.	OK	OK
a. With the same project participants	EB 34	Ann 09	There is no registered small-scale project activity under the CDM or an application to register another small-scale project activity under the CDM by the same project participant.	OK	OK
b. Registered within the period of 2 years	EB 34	Ann 09	There is no registered small-scale project activity under the CDM or an application to register another small-scale project activity under the CDM within the period of two years.	OK	OK
c. Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity under the CDM at the closest point.	EB 34	Ann 09	There is no registered small-scale project activity under the CDM or an application to register another small-scale project activity under the CDM by whose project boundary is within 1 km of the project boundary of proposed CDM project activity.	OK	OK
iii. Are there any changes/modifications compared to the webhosted PDD?	EB 34	Ann 09	No changes observed compared to the web hosted PDD.	OK	OK



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
k. In CDM-SSC-PDD section B.1 is the approved baseline and monitoring methodology and version no provided?	EB 34	Ann 09	The project participant has correctly provided the approved baseline and monitoring methodology as AMS I D, version 17 in section B.1 of the PDD.	OK	OK
l. In CDM-SSC-PDD section B.2 are the following provided?	EB 34	Ann 09			
i. Justification of the choice of project activity and category?	EB 34	Ann 09	Justification of the choice of the project activity and its category is provided in section B.2 of the PDD.	OK	OK
ii. Demonstration that the project activity qualifies as a small-scale project activity and that it will remain under the limits of small-scale project activity types during every year of the crediting period as per the following: For Type I : the capacity of the proposed project activity will not exceed 15 MW (or an appropriate equivalent); For Type II: the annual energy savings on account of efficiency improvements will not exceed 60 GWh (or an appropriate equivalent) in any year of the crediting period; For Type III: the estimated emission reductions of the project activity will not exceed 60 ktCO <sub>2</sub> e in any year of the crediting period.	EB 34	Ann 09	It has been demonstrated that the project qualifies as a small-scale project activity and that it will remain under the limits of small-scale project activity type during every year of the crediting period as per the as the project activity is Type I and the capacity of the proposed project activity will not exceed 15 MW during entire crediting period.	OK	OK
m. In CDM-SSC-PDD section B.3 is the project boundary of the project activity, based on	EB 34	Ann 09	The project participant has provided the project boundary in accordance with the applied	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the guidance of the applicable project category, provided?			baseline and monitoring methodology and project category.		
n. In CDM-SSC-PDD Section B.4 are following provided?	EB 34	Ann 09			
i. The baseline for the proposed project activity with reference to the chosen project category.	EB 34	Ann 09	The baseline for the proposed project activity has been provided in accordance with the chosen project category.	OK	OK
ii. Justification of key assumptions and rationales	EB 34	Ann 09	The key assumptions and rationales are justified in section B.4 of the PDD.	OK	OK
iii. Transparent illustration of all data used to determine the baseline emissions (variables, parameters, data sources etc)	EB 34	Ann 09	The data used for the determination of the baseline emissions (variables, parameters, data sources, etc) are provided in a tabular format.	OK	OK
iv. Are there any changes/modifications compared to the webhosted PDD?	EB 34	Ann 09	There are no changes observed in the project boundary as compared to the web hosted PDD.	OK	OK
o. In CDM-SSC-PDD section B.5 are following provided?	EB 34	Ann 09			
i. Explanation that the proposed project activity is additional as per options provided under Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities.	EB 34	Ann 09	The additionality has been provided in accordance with attachment A to appendix B of the simplified modalities and procedures for small-scale CDM project activities.	OK	OK
ii. National policies and circumstances relevant to the baseline of the proposed project activity	EB 34	Ann 09	National policies and circumstances relevant to the baseline of the proposed CDM project activity have not been provided in accordance	CAR 1	



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
iii. Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation. (this is part of the large scale project guidelines. It is better to be retained)	EB 34	Ann 09	with Annex 3 of EB 22. Please explain. In section B.5 of the PDD, PP has mentioned that the intimation has been sent to UNFCCC on 22/06/2010 with the name of ATPL as project participants for the project activity and at later stage after change of location and ASTGPL as project participant, an intimation was again sent to UNFCCC on 8 <sup>th</sup> April 2011 and again an amended intimation was sent to UNFCCC on 23 <sup>rd</sup> Aug 2011 since the name of the entity in Section 2 was not correctly mentioned in the F-CDM form sent on 8 <sup>th</sup> April 2011.  However, intimation sent to the UNFCCC with the correct name of the PP cannot be traced from the UNFCCC website. Please clarify.	CL 3	
p. In CDM-SSC-PDD section B.6.1 are following provided?	EB 34	Ann 09			
(i) Explanation on how the procedures, in the approved project category to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity.	EB 34	Ann 09	The section B.6.1 of the PDD explains the procedures as per the approved project category to calculate project emissions, baseline emissions, leakage emissions and emission reductions.	OK	OK
(ii) Clearly stating of which equations will be used in calculating emission reductions.	EB 34	Ann 09	Section B.6.1 does not explain the selection of the options available for the calculations of grid	CAR 2	



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			emission factor, though the same has been explained in section B.4 of the PDD.		
(iii) Explanation and justification of all relevant methodological choices, including: where the category provides different options to choose from; where the category provides for different default values.	EB 34	Ann 09	The explanation and justification of all the relevant methodological choices are provided in section B.6.1 of the PDD.	OK	OK
q. In CDM-SSC-PDD section B.6.2 are following provided?	EB 34	Ann 09			
i. A compilation of information on the data and parameters that are not monitored but determined upfront so as to be available for validation.	EB 34	Ann 09	The information on the data and parameters that are not monitored but determined upfront and made available at the time of validation has provided in section B.6.2 of the PDD.	OK	OK
ii. The actual value applied.	EB 34	Ann 09	The value applied in section B.6.2 is mentioned.	OK	OK
iii. Explanation and justification for the choice of the source of data.	EB 34	Ann 09	In section B.6.2 of the PDD the notation of the parameters is not in accordance with applied methodology and tool to calculate emission factor for an electricity system.	CAR 3	
iv. Clear and transparent references or additional documentation in Annex 3.	EB 34	Ann 09	There is no additional document referred in Annex 3 of the PDD. It is stated in Annex 3 that all required information has been provided in section B.6.1 of the PDD.	OK	OK
v. Where values have been measured, a description of the measurement methods and procedures (e.g. which standards	EB 34	Ann 09	There description on the measurement / calculation method has been provided in section B.6.2 of the PDD.	OK	OK



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have been used), indicated the responsible person/entity having undertaken the measurement, the date of measurement(s) and the measurement results.					
r. In CDM-SSC-PDD section B.6.3 are following provided?	EB 34	Ann 09			
i. A transparent ex ante calculation of project emissions, baseline emissions (or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the approved methodology.	EB 34	Ann 09	The project participant has provided the ex ante calculations of the baseline emissions and emission reduction in section B.6.3 of the PDD, which is in line with applied baseline methodology.	OK	OK
ii. Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 34	Ann 09	The application of the equation of baseline emissions and emission reduction has been provided in such a manner that enables the reader to reproduce the calculation.	OK	OK
iii. Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 34	Ann 09	There is no further information mentioned in Annex 3 of the PDD as the same is not required.	OK	OK
iv. Emission reduction calculations for each component are provided separately if more than one component activity is applied	EB 34	Ann 09	There is only one component involved in the project activity and the same has been incorporated in calculation of emission reduction.	OK	OK



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s. In CDM-SSC-PDD section B.6.4 are the results of the ex ante estimation of emission reductions for all years of the crediting period, in a tabular format, provided?	EB 34	Ann 09	The section B.6.4 of the PDD indicates the ex ante estimation of emission reductions for all years of the first crediting period in a tabular format.	OK	OK
t. In CDM-SSC-PDD section B.7.1 are following provided?	EB 34	Ann 09			
i. Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 34	Ann 09	The information on how the data and parameters, which are required to be monitored, would actually be collected during monitoring of the project activity is provided.	OK	OK
ii. For each below parameter the following information, using the table provided:	EB 34	Ann 09			
a. The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where several sources may be used, explain and justify which data sources should be preferred	EB 34	Ann 09	The project participant has mentioned the source of data used for the monitoring of required parameters.	OK	OK
b. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied, which measurement equipment is used, how the measurement is undertaken, which	EB 34	Ann 09	The measurement and calculation procedures are defined and provided in section B.7.1 of the PDD.	OK	OK



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calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person/entity that should undertake the measurements and what is the measurement interval; (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment. Provide any relevant further background documentation in Annex 4.					
iii. A detailed description of the monitoring plan.	EB 34	Ann 09			
a. The operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity	EB 34	Ann 09	The operational and management structure to monitor the emission reductions has been provided in section B.7.2 of the PDD.	OK	OK
b. These responsibilities for and institutional arrangements for data collection and archiving	EB 34	Ann 09	The responsibilities for data collection and achieving have been stated in section B.7.2 of the PDD.	OK	OK
c. Does the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 34	Ann 09	The monitoring plan is such that it reflects a good monitoring practice. However, refer to the CAR/CL raised in section 7 of this protocol.	OK	OK
d. Relevant further background information in Annex 4	EB 34	Ann 09	There is no information provided in Annex 4 of the PDD. The Annex 4 refers to section B.7 of	OK	OK



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			the PDD only for any information related to the monitoring emission reduction of the proposed CDM project activity.		
u. In CDM-SSC-PDD section B.8 are following provided	EB 34	Ann 09			
i. Date of completion of the application of the methodology to the project activity study in DD/MM/YYYY.	EB 34	Ann 09	The date of the application of the baseline and monitoring methodology has been provided in DD/MM/YYYY as 31/08/2011.	OK	OK
ii. Contact information of the person(s)/entity(ies) responsible for the application of the baseline and monitoring methodology to the project activity	EB 34	Ann 09	The contact information of the person/entity responsible for the application of the baseline and monitoring methodology has been provided in Annex 1, which is referred in Section B.8 of the PDD.	OK	OK
iii. Indicated if the person/entity is also a project participant listed in Annex 1	EB 34	Ann 09	It has been indicated in the PDD that the person/entity responsible for application of baseline and monitoring methodology is also a project participant and the contact information is provided in Annex 1 of the PDD.	OK	OK
v. In CDM-SSC-PDD section C.1.1 are following provided?	EB 34	Ann 09			
i. The starting date of a CDM project activity is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (EB33, Para 76/CDM Glossary of terms/EB41, Para 67)	EB 34	Ann 09	The starting date of the proposed CDM project activity is provided as the date of signing EPC contract. This is as per the Glossary of terms (EB 41).	OK	OK
ii. A description of how this start date has	EB	Ann	The description on how the start date of the	OK	OK



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been determined, and a description of the evidence available to support this start date	34	09	project activity has been determined is provided and an evidence i.e. copy of the contract has been made available to the validation team. The contract is reviewed and confirmed that the start date considered is in accordance with the CDM glossary of terms.		
iii. If this starting date is earlier than the date of publication of the CDM-SSC-PDD for global stakeholder consultation by a DOE, does Section B.5 above contain a description of how the benefits of the CDM were seriously considered prior to the starting date?	EB 34	Ann 09	The starting date of the project activity is earlier than the date of publication of the PDD for global stakeholders' consultation and the prior consideration of CDM has been explained and demonstrated in the section B.5 of the PDD.	OK	OK
w. In CDM-SSC-PDD section C.1.2 is the expected operational lifetime of the project activity in years and months provided?	EB 34	Ann 09	The expected lifetime of the project activity has been provided as 25 years and 0 months in section C.1.2 of the PDD. However, the expected lifetime has not been substantiated with documentary evidence.	CL 4	
x. In CDM-SSC-PDD section C.2 is it stated whether the project activity will use a renewable or a fixed crediting period and completed C.2.1 or C.2.2 accordingly?	EB 34	Ann 09	It has been stated in section C.2 of the PDD that the project activity will use the renewable crediting period.	OK	OK
y. In CDM-SSC-PDD section C.2.1 is it indicated that each crediting period shall be at most 7 years and may be renewed at most two times, provided that, for each renewal, a designated operational entity	EB 34	Ann 09	No information has been provided in section C.2.1 of the web hosted PDD. Please explain.	CAR 4	



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determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable?					
z. In CDM-SSC-PDD section C.2.1.1 are the dates in the following format: (DD/MM/YYYY) provided?	EB 34	Ann 09	Starting date of the crediting period provided in section C.2.1.1 is not in accordance with para 25 Annex 12 of EB 59. Please explain	CAR 5	
aa. In CDM-SSC-PDD section C.2.1.2 is the length of the first crediting period in years and months?	EB 34	Ann 09	The length of the first crediting period is mentioned as 7 years and 0 month.	OK	OK
bb. In CDM-SSC-PDD section C.2.2 is it indicated fixed crediting period at most ten (10) years	EB 34	Ann 09	Not applicable as the project activity uses renewable crediting period.	OK	OK
cc. In CDM-SSC-PDD section C.2.2.1 are the dates in the format (DD/MM/YYYY) provided?	EB 34	Ann 09	Not applicable as the project activity uses renewable crediting period.	OK	OK
dd. In CDM-SSC-PDD section C.2.2.2 is the length of the crediting period in years and months provided?	EB 34	Ann 09	Not applicable as the project activity uses renewable crediting period.	OK	OK
ee. In CDM-SSC-PDD section D.1 is the documentation on the analysis of the environmental impacts, if required by Host Party, provided?	EB 34	Ann 09	It is explained in the section D.1 of the PDD that the proposed CDM project activity does not require Environment Impact Assessment as per the notification of the Ministry of Environment and Forests (MoEF), Government of India vide notification no. S.O. 1533 (E) dated September 14, 2006.	OK	OK
ff. In CDM-SSC-PDD section E.1 are following	EB	Ann			



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provided?	34	09			
i. The process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted	EB 34	Ann 09	Section E.1 clarify that the local stakeholders were invited by personal invitation to the local villagers and the same has been cross checked with the Invitation letters sent.	OK	OK
ii. The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	EB 34	Ann 09	In section E.1 it is described that the project participants has explained the project activity to the local stakeholders. The same has been observed during interview with local stakeholders on site visit.	OK	OK
iii. The local stakeholder process has been completed before submitting the proposed project activity to the DOE for validation	EB 34	Ann 09	The local stakeholder process has been completed on 10 <sup>th</sup> September 2011, which is prior to the submission of the PDD to DOE for validation.	OK	OK
gg. In CDM-SSC-PDD section E.2 are following provided?	EB 34	Ann 09			
i. Local stakeholders that have made comments identified.	EB 34	Ann 09	Stakeholders were identified with the details/names of the local stakeholders, who made comments during consultation meeting.	OK	OK
ii. A summary of these comments	EB 34	Ann 09	The summary of the comments are provided in section E.2 of the PDD.	OK	OK



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hh. In CDM-SSC-PDD section E.3 is and explanation of how due account have been taken of comments received from local stakeholders provided?	EB 34	Ann 09	It has been stated that the local stakeholders appreciated the environment friendly initiative.	OK	OK
ii. In CDM-SSC-PDD Annex 1 are following provided?	EB 34	Ann 09			
i. Contact information of project participants	EB 34	Ann 09	The contact information of the project participant has been provided in Annex 1 of the PDD.	OK	OK
ii. For each organisation listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 34	Ann 09	All the mandatory fields are provided in Annex 1 of the PDD.	OK	OK
jj. In CDM-SSC-PDD Annex 2 is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 34	Ann 09	It has been stated in Annex 2 that there is no public funding involved in the proposed CDM project activity.	OK	OK
kk. In CDM-SSC-PDD Annex 3 is the background information used in the application of the baseline methodology provided?	EB 34	Ann 09	There isn't any additional information provided in Annex 3 of the PDD with respect to the identification of the baseline in line with applied baseline and monitoring methodology.	OK	OK



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II. In CDM-SSC-PDD Annex 4 is the background information used in the application of the monitoring methodology provided?	EB 34	Ann 09	The Annex 4 refers to the section B.7 of the PDD and there is no additional information in Annex 4.	OK	OK
<b>4. Project description</b>					
a. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	The description on technology implemented has been provided in section A.4.2 of the PDD.  However, the number of PV modules to be installed of each type is not clear. Please clarify.	CL 5	
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59			
i. sufficiently covering all relevant elements?	VVM	59	The PDD covers all relevant elements of the proposed CDM project activity. However, refer to 4.a (above).	OK	OK
ii. accurate?	VVM	59	The information provided in the PDD is accurate as observed during site visit.	OK	OK
iii. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VVM	59	The description on technology implemented has been provided in section A.4.2 of the PDD.  However, the number of PV modules to be installed of each type is not clear. Please clarify.	(CL 5)	
iv. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	There are no changes observed during site visit as compared to the PDD.	OK	OK



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c. Is the proposed CDM project activity in existing facilities or or utilizing existing equipments?	VVM	60	The project activity is a greenfield project and does not utilise any existing facility or equipment.	OK	OK
d. Is the CDM project activity one of the following types:	VVM	60			
i. Large scale?	VVM	60	The project activity is not a large scale project.	OK	OK
ii. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	The proposed CDM project activity is a non-bundled small scale CDM project with emission reduction not exceeding 15000 tonnes per year.	OK	OK
iii. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	The project activity is not a bundled CDM project with emission reductions not exceeding 15,000 tonnes.	OK	OK
e. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	Not applicable	OK	OK
f. If yes to (d.iii) above, was the number of physical site visits based on samping?	VVM	60	Not applicable	OK	OK
g. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	Not applicable	OK	OK
h. For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	The project activity is an individual proposed small scale CDM project with emission reductions not exceeding 15000 tonnes per year. A two member validation team of BVC conducted a physical site inspection on 21 <sup>st</sup>	OK	OK



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			February 2012.		
i. For all other proposed CDM project activities not referred to in paragraphs 59 – 61, was a physical site inspection conducted?	VVM	62	As mentioned above, the validation team conducted a physical site inspection on 21 <sup>st</sup> February 2012.	OK	OK
j. If no, was it appropriately justified?	VVM	62	Not applicable	OK	OK
k. Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	The proposed CDM project activity is a greenfield project with purchase of new equipments and does not involve any alteration of an existing installation or process.	OK	OK
l. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	Not applicable	OK	OK
<b>5. Baseline and monitoring methodology</b>					
<b>a. General requirement</b>					
a. Do the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	The proposed CDM project activity applies baseline and monitoring methodology AMS I D, version 17, which is previously approved by CDM Executive Board.	OK	OK
b. Is the selected methodology applicable to the project activity?	VVM	66	The selected methodology is applicable to the proposed CDM project activity.	OK	OK
c. Had the PP correctly applied the selected methodology?	VVM	66	Refer to (5.b) below	-	-
d. Had the selected methodology been correctly applied with respect to project	VVM	67	Refer to (5.c) below	-	-



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boundary?					
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Refer to (5.d) below	-	-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	Refer to (5.e) below	-	-
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	Refer to section (6) below	-	-
Has the general guidance to the small scale CDM methodologies, information on additionality (attachment A to appendix B) been applied correctly?	AMS	I D	The project participant has applied attachment A to appendix B of simplified modalities and procedure for small scale project activities.	OK	OK
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	Refer to section (7) below	-	-
<b><i>b. Applicability of the selected methodology to the project activity</i></b>					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VVM	68	The proposed CDM project activity applied baseline and monitoring methodology AMS I D, version 17, which is previously approved by CDM EB and is applicable to the project activity and valid at the time of validation.	OK	OK
b. Has the DOE applied specific guidance	VVM	69	The DOE has applied the general guidance to	OK	OK



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provided by the CDM Executive Board in respect to the applicable approved methodology?			SSC CDM methodologies provided by CDM EB.		
c. Is the methodology correctly quoted?	VVM	70	The methodology has been quoted correctly in the web hosted PDD in section B.1.	OK	OK
d. Are the applicability conditions of the methodology met?	VVM	71			
a. Does the project activity comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to a national or a regional grid? Note: Project activities that displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit shall apply AMS-I.F.	AMS	I D	The proposed CDM project activity comprises of energy (electricity) generation using renewable source of energy i.e. solar energy. The project activity involves installation of solar PV using thin film technology. The proposed CDM project activity is connected to the NEWNE grid of India. Thus, the project activity displaces the electricity from electricity distribution system.	OK	OK
b. Has the project participant provided justification in line with the applicability of methodology with respect to Table 2 of approved methodology ?	AMS	I D	The project participant has provided a justification of the applicability of the baseline and monitoring methodology as per Table 2 of the AMS I D, version 17. The option 1 of the table is applicable to the proposed CDM project, which is found to be correct.	OK	OK
c. Does the project activity i. install a new power plant at site where there was no renewable	AMS	I D	The proposed CDM project activity includes installation of a new solar PV thin film technology based power plant, where there	OK	OK



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<p>energy power plant operating prior to the implementation of the project activity (Greenfield plant);</p> <p>ii. involve a capacity addition</p> <p>iii. involve a retrofit of (an) existing plant(s) or</p> <p>iv. involve a replacement of (an) existing plant(s)</p>			was no power generation prior to the implementation of the proposed CDM project activity.		
<p>d. For Hydro power plants with reservoirs, does it satisfy at least one of the following conditions</p> <p>(a) the project activity is implemented in an existing reservoir with no change in the volume of reservoir</p> <p>(b) the project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, is greater than 4 W/m<sup>2</sup></p> <p>(c) the project activity results in new reservoirs and the power density of the power plant is greater than 4 W/m<sup>2</sup>.</p>	AMS	ID	The proposed CDM project activity is solar PV thin film technology for power generation. Hence this is not applicable.	OK	OK
<p>e. Is the following guideline followed:</p> <p>(a) If the new unit has both renewable and non-renewable components (eg., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project</p>	AMS	ID	As explained above, the proposed CDM project activity is a new and greenfield plant to generate electricity from solar energy. Hence, the proposed CDM project activity does not involve any non-renewable component.	OK	OK



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activity applies only to the renewable component. (b) If the new unit co-fires fossil fuels, the capacity of the entire unit shall not exceed the limit of 15 MW.					
f. Is the following guideline followed: Combined heat and power (co-generation) systems are not eligible under this category	AMS	ID	The proposed CDM project activity is not a co-generation plant and hence not applicable.	OK	OK
g. Is the following guideline followed: In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing	AMS	ID	As explained above, the proposed CDM project activity is a new and greenfield plant to generate electricity from solar energy. Hence, the proposed CDM project activity does not involve any addition of renewable energy generating units. Hence, this condition is not relevant and not applicable.	OK	OK
h. Is the following guideline followed: In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	AMS	ID	The proposed CDM project activity does not have any retrofitting. Not applicable.	OK	OK
e. Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	71	There are no other emissions other than those allowed by the methodology.	OK	OK
f. Is the choice of the methodology justified?	VVM	71	The choice of the methodology has been justified in the section B.2 of the PDD.	OK	OK



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g. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VVM	71	The project participant has justified the applicability conditions of the methodology in section B.2 of the PDD. However, the justification provided for applicability condition 4 and 5 is not appropriate.	CL 6	
h. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71	The tool referred by the methodology is "Tool to calculate emission factor of an electricity system", which is applicable in line with applied baseline and monitoring methodology.	OK	OK
i. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	71	There are no such sources available than used in the PDD.	OK	OK
j. If yes, was the PDD cross checked against the other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)	VVM	71	Not applicable	OK	OK
k. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	72	The determination regarding the applicability of the selected methodology to the proposed CDM project activity can be made.	OK	OK
l. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	Not applicable	OK	OK
m. If answer to (5.b.c) above is "no", revision or deviation from the methodology was	VVM	73	Not applicable	OK	OK



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requested, in accordance with the guidance provided by the CDM Executive Board?					
n. If yes to (5.b.k) and (5.b.l) above, a request for revision was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	Not applicable	OK	OK
<b><i>c. Project boundary</i></b>					
a. Does the PDD correctly describe 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?	VVM	78	The project participant has described the project boundary of the proposed CDM project activity in section B.3 of the web hosted PDD. The description of the project boundary is found to be in accordance with the applied baseline and monitoring methodology.	OK	OK
i. Does the physical, geographical site of the renewable generation?	AMS	1 D	The validation team has confirmed that the physical and geographical site of the project activity represents the renewable generation.	OK	OK
b. Is the delineation in the PDD of the project boundary correct and include identification of all locations, processes and equipment including secondary equipment and associated processes such as logistics etc.?	VVM	79	The schematic project boundary provided in the PDD is correct and includes the locations and equipments of the project activity.	OK	OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	79	The delineation of the project boundary in section B.3 of the web hosted PDD meets the requirements of the applied baseline and monitoring methodology.	OK	OK



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d. Have changes been made to the project boundary in comparison to the webhosted PDD. If yes please comment on the reason for the changes.	VVM	79	There are no changes observed in the overall project boundary as compared to the web hosted PDD.	OK	OK
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	All the sources and GHGs required by the applied baseline and monitoring methodology have been included in the project boundary. The main source of emission in baseline is operation of grid connected thermal power plants and there is no source of GHG emission in the project scenario.	OK	OK
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	79	The methodology does not provide such options.	OK	OK
g. If yes, have the project participants justified that choice?	VVM	79	Not applicable	OK	OK
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	Not applicable	OK	OK
<b>d. Baseline identification</b>					
a. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of	VVM	81	The web hosted PDD identifies the baseline scenario as the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-	OK	OK



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GHGs that would occur in the absence of the proposed CDM project activity?			connected power plants and by the addition of new generation sources into the grid.		
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	82	The identification of the baseline scenario has been provided in accordance with the applied baseline methodology AMS I D, version 17.	OK	OK
i. Is the following guideline followed: Is the project activity new grid-connected renewable power plant/unit and hence the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources.	AMS	I.D	The proposed CDM project activity involves installation of solar (renewable) energy based grid connected power plant and hence the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources.	OK	OK
ii. Is the baseline emissions calculated as the product of electrical energy baseline EGBL, y expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission $BE_Y = EG_{BL Y} * EF_{CO2 grid Y}$	AMS	I.D	The baseline emissions are calculated as the product of electrical energy baseline expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. This has been clearly explained in section B.4 and section B.6.1 of the web hosted PDD.	OK	OK
iii. Is the Emission Factor calculated in a transparent and conservative manner as follows: (a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to	AMS	I.D	The emission factor has been calculated transparently using option (a) of the paragraph 12 of the applied baseline and monitoring methodology AMS I D, version 17.  However, the project participant has used	CL 7	



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<p>the procedures prescribed in the .Tool to calculate the Emission Factor for an electricity system.. OR</p> <p>(b) The weighted average emissions (in t CO<sub>2</sub>/MWh) of the current generation mix. The data of the year in which project generation occurs must be used. Calculations shall be based on data from an official source (where available) and made publicly available.</p>			<p>version 6 of CEA database, which uses version 2.0 of the tool to calculate emission factor for an electricity system. The web hosted PDD correctly uses the latest version of the tool available at the time of validation i.e. version 2.2.1 of tool to calculate emission factor for an electricity system.</p> <p>However, PP is requested to clarify the appropriateness of use of two different versions of the tool for the determination of the same parameter.</p>		
<p>iv. Is the following guideline followed:</p> <ul style="list-style-type: none"> <li>- In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category.</li> <li>- If the recovered methane is used for electricity generation for supply to a grid then the baseline shall be calculated in accordance with paragraphs below else use other applicable type I methodologies such as AMS-IA or AMS-I.F.</li> <li>- If the recovered methane is used for heat generation or cogeneration it is eligible under category I.C.</li> </ul>	AMS	I.D	The proposed CDM project activity is a grid connected solar power plant and hence this is not applicable.	OK	OK



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<p>v. Is the following guideline followed for project activities that involve retrofits or replacements of an existing facility for renewable energy generation:</p> <ul style="list-style-type: none"> <li>- The baseline scenario is the continuing operation of the existing plant.</li> <li>- The methodology uses historical electricity generation data to determine the electricity generation of the existing plant in the baseline scenario, assuming that the historical situation observed prior to the implementation of the project activity would continue. In the absence of the CDM project activity, the existing facility would continue to provide electricity to the grid BL retrofit y EG, at historical average levels EG<sub>historical</sub>, y until the time at which the electrical generation facility would be likely to be replaced or retrofitted in the absence of the CDM project activity (DATE<sub>BaselineRetrofit</sub>). From that point of time onwards, the baseline scenario is assumed to correspond to the project activity, and baseline electricity production is assumed to equal the project.s net electricity production and no emission reductions are assumed to occur.</li> </ul>	AMS	I.D	The proposed CDM project activity is a grid connected solar power plant and is a greenfield project. Hence this is not applicable.	OK	OK



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<p>vi. Is the following guideline followed for Retrofit/capacity addition of hydro, solar, wind, geothermal, wave and tidal plants:</p> <ul style="list-style-type: none"> <li>- Use of standard deviation for calculating baseline electricity generation.</li> <li>- A minimum of 5 years (60 months) (excluding abnormal years) of historical generation data is required in the case of hydro facilities and for other facilities a minimum of 3 years (36 months) data is required.</li> <li>- In the case that 5 years of historical data are not available - e.g., due to recent retrofits or exceptional circumstances - a new methodology or methodology revision shall be proposed.</li> <li>- In the case of wind, solar, wave or tidal power plants, the electricity produced by the added power plant(s) or unit(s) could be directly metered and used to determine EG BL,y. provided that the electricity produced by the added power plant(s) or unit(s) addition is separately metered.</li> <li>- Project activities for capacity addition in hydro or geothermal shall use equation 3 replacing subscript .retrofit. with .capacity addition.</li> </ul>	AMS	I.D	The proposed CDM project activity is a grid connected solar power plant and is a greenfield project. Hence this is not applicable.	OK	OK
vii. Is the following guideline followed for	AMS	I.D	The proposed CDM project activity is a grid	OK	OK



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<p>Retrofit renewable energy units other than hydro, solar, wind, geothermal, wave and tidal plants: Baseline emissions are calculated as:</p> $BE_{\text{retrofit,CO2,y}} = (EG_{\text{PJ,retrofit,y}} - EG_{\text{BL,retrofit,y}}) * EF_{\text{CO2}}$ <p>EG historical - A minimum of 3 years of data is required. In the case that 3 years of historical data are not available 9- e.g., due to recent retrofits or exceptional circumstances - a new methodology or methodology revision shall be proposed</p>			connected solar power plant and is a greenfield project. Hence this is not applicable.		
<p>viii. Is the requirements concerning demonstration of the remaining lifetime of the replaced equipment met as described in the general guidelines to SSC methodologies? Note: If the remaining lifetime of the affected systems increases due to the project activity, the crediting period shall be limited to the estimated remaining lifetime, i.e., the time when the affected systems would have been replaced in the absence of the project activity.</p>	AMS	I.D	The proposed CDM project activity is a grid connected solar power plant and is a greenfield project. Hence there is no requirement of the remaining lifetime of the project activity. However, the operational lifetime of the project activity has been provided as 25 years.	OK	OK
<p>ix. Is the following guideline followed for Capacity addition with renewable energy units other than hydro, solar, wind,</p>	AMS	I.D	The proposed CDM project activity is a grid connected solar power plant and is a greenfield project. There is no capacity	OK	OK



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geothermal, wave and tidal plants: - The baseline scenario is the existing facility that would continue to supply electricity to the grid at historical levels, until the time at which the generation facility would likely be replaced or retrofitted (DATE <sub>BaselineRetrofit</sub> ). - If the existing units shut down, are derated, or otherwise become limited in production, the project activity should not get credit for generating electricity from the same renewable resources that would have otherwise been used by the existing units (or their replacements).			addition involved. Hence this is not applicable.		
x. Does project activity involve co-firing ? If yes, the quantities and types of biomass and biomass to fossil fuel ratio to be used during crediting period is explained and documented transparently and presented in PDD ? Are ex ante estimation of these values provided in the PDD ?	AMS	ID	The proposed CDM project activity is a grid connected solar power plant and is a greenfield project. There is no firing/cofiring is required for the operation of the project activity. Hence this is not applicable.	OK	OK
c. Does the selected methodology require use of tools (such as the “Tool for the demonstration and assessment of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the	VVM	81	The proposed project activity is a 15 MWp solar power plant using Thin film technology. The project activity qualifies the criteria of small-scale project activity as per the General Guidance to SSC CDM methodologies. Hence, Tool for the demonstration and assessment of	OK	OK



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baseline scenario?			additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality is not applicable. Further, the baseline scenario has been prescribed by the applied baseline and monitoring methodology.		
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	82	Not applicable as the proposed CDM project activity is a small-scale project activity.	OK	OK
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	The applied baseline and monitoring methodology AMSI.D version 17 prescribes the baseline scenario in its paragraph 10 and 11 and hence does not require the several alternative scenario.	OK	OK
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	Not applicable as the baseline is prescribed by the applied methodology.	OK	OK
g. Has any reasonable alternative scenario been excluded?	VVM	83	There is no other alternative scenario involves in the determination of the baseline scenario of the proposed CDM project activity.	OK	OK
h. Is the baseline scenario identified reasonably supported by:	VVM	84			
i. Assumptions?	VVM	84	Baseline scenario is itself prescribed by the methodology and hence assumptions and calculations are not required.	OK	OK



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ii. Calculations?	VVM	84	Baseline scenario is itself prescribed by the methodology and hence assumptions and calculations are not required.	OK	OK
iii. Rationales?	VVM	84	Baseline scenario is itself prescribed by the methodology and hence assumptions and calculations are not required.	OK	OK
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	84	The documents are quoted correctly as referred in section B.4, Section B.6.1 and section B.6.3 of the web hosted PDD.	OK	OK
j. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	84	There is no requirement of the local expert as the information provided in the web hosted PDD are sourced from the publicly available information i.e. Central Electricity Authority, which is the only body under Government of India to produce such information.	OK	OK
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	All the CDM requirements are taken into consideration in the identification of baselines scenario i.e. the identification of the baseline scenario is in accordance with the applied baseline and monitoring methodology.	OK	OK
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85	All the relevant policies and circumstances are identified correctly in the PDD.	OK	OK
m. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the	VVM	86	The web hosted PDD provides very clear and verifiable description of the identified baseline scenario including a description of the	OK	OK



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technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?			technology that would be employed and technologies that would take place in the absence of the proposed CDM project activity.		
<b><i>e. Algorithms and/or formulae used to determine emission reductions</i></b>					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	VVM	89	The project participant has applied the equations of the baseline emissions and emission reduction calculations correctly in accordance with the applied baseline and monitoring methodology.	OK	OK
b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90	The equations applied are in accordance with paragraph 11 (equation 1) and paragraph 23 (equation 10) of the selected approved baseline and monitoring methodology AMS I D, version 17.	OK	OK
i. Have project emissions considered as described in recent version of ACM0002 followed for: - Emissions related to the operation of geothermal power plants; - Emissions from water reservoirs of hydro power plants.	AMS	I.D	The project emission is considered to be zero in accordance with paragraph 20 of AMS I D, version 17 as the project activity is a grid connected solar power plant.	OK	OK
ii. Is leakage considered, if the energy generating equipment is transferred from another activity	AMS	I.D	The leakage emission is considered to be zero in accordance with paragraph 22 of AMS I D, version 17 as the project activity is a green field grid connected solar power plant and	OK	OK



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			energy generating equipment is not transferred from another activity.		
iii. Is emission reduction calculated as per equation $ER_Y = BE_Y - PE_Y - LE_Y$	AMS	I.D	The emission reductions are calculated as per equation $ER_Y = BE_Y - PE_Y - LE_Y$	OK	OK
c. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	The project activity applies AMS I D, version 17 provides selection of the equation in line with the prescribed baseline scenario, which is correct.	OK	OK
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	90	The project activity applies AMS I D, version 17 provides selection of the equation in line with the prescribed baseline scenario, which is correct.	OK	OK
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	Refer to 5.d.h.ii (above)	-	-
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	91	Some of the data / parameters will not be monitored throughout the crediting period and will be measure ex ante and will be fixed for entire crediting period.	OK	OK
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91	The parameters related to the grid emission factors including OM emission factor, BM emission factor and CM emission factor will be fixed ex ante and throughout the crediting period.	OK	OK
i. Appropriate and correct?	VVM	91	The values provided in section B.6.2 of the web hosted PDD are correct and appropriate	OK	OK



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			to the type of project activity.		
ii. Applicable to the proposed CDM project activity?	VVM	91	The parameters combined margin emission factor are applicable to the proposed CDM project activity.	OK	OK
iii. Resulting in a conservative estimate of the emission reductions?	VVM	91	The values are conservative and correct based on the data available publicly, which are produced by CEA, Government of India.	OK	OK
h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	91	The parameter "Net Electricity Supplied by the project activity i.e. EG <sub>BL,Y</sub> " is monitored ex post.	OK	OK
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	91	The estimates of the parameter "Net Electricity Supplied by the project activity i.e. EG <sub>BL,Y</sub> " are provided in the section B.6.3 of the web hosted PDD.	OK	OK
<b>6. Additionality of a project activity</b>					
a. Does the PDD describe how a proposed CDM project activity is additional?	VVM	94	The web hosted PDD describes the additionality of the proposed CDM project activity.	OK	OK
b. Were the following steps of the tool to assess additionality used:	EB 65	Ann 21	The steps required to assess the demonstration of additionality as per the "Tool for the demonstration and assessment of additionality" are not applicable as the proposed CDM project activity is a small-scale CDM project activity.	OK	OK
i. Identification of alternatives to the project	EB	Ann	Not applicable	OK	OK



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activity?	65	21			
ii. Investment analysis to determine that the proposed project activity is either: 1) not the most economically or financially attractive, or 2) not economically or financially feasible?	EB 65	Ann 21	Not applicable	OK	OK
iii. Barriers analysis?	EB 65	Ann 21	Not applicable	OK	OK
iv. Common practice analysis?	EB 65	Ann 21	Not applicable	OK	OK
c. In step 1 (i) have all the sub-steps as below been followed?	EB 65	Ann 21	Not applicable	OK	OK
(i) Sub-step 1a: Define alternatives to the project activity	EB 65	Ann 21	Not applicable	OK	OK
(ii) Sub-step 1b: Consistency with mandatory laws and regulations	EB 65	Ann 21	Not applicable	OK	OK
d. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 65	Ann 21	Not applicable	OK	OK
(a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 65	Ann 21	Not applicable	OK	OK
(b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas,	EB 65	Ann 21	Not applicable	OK	OK



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taking into account, where relevant, examples of scenarios identified in the underlying methodology;					
(c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 65	Ann 21	Not applicable	OK	OK
e. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 65	Ann 21	Not applicable	OK	OK
f. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 65	Ann 21	Not applicable	OK	OK
g. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 65	Ann 21	Not applicable	OK	OK
h. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based	EB 65	Ann 21	Not applicable	OK	OK



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on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?					
i. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 65	Ann 21	Not applicable	OK	OK
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 65	Ann 21	Not applicable	OK	OK
k. In step 2, have all the sub-steps as below been followed?	EB 65	Ann 21	Not applicable	OK	OK
(a) Sub-step 2a: Determine appropriate analysis method;	EB 65	Ann 21	Not applicable	OK	OK
(b) Sub-step 2b: Option I. Apply simple cost analysis;	EB 65	Ann 21	Not applicable	OK	OK
(c) Sub-step 2b: Option II. Apply investment comparison analysis;	EB 65	Ann 21	Not applicable	OK	OK



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(d) Sub-step 2b: Option III. Apply benchmark analysis;	EB 65	Ann 21	Not applicable	OK	OK
(e) Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 65	Ann 21	Not applicable	OK	OK
(f) Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 65	Ann 21	Not applicable	OK	OK
l. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 65	Ann 21	Not applicable	OK	OK
(a) Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 65	Ann 21	Not applicable	OK	OK
(b) Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 65	Ann 21	Not applicable	OK	OK
m. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 65	Ann 21	Not applicable	OK	OK



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n. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 65	Ann 21	Not applicable	OK	OK
o. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 65	Ann 21	Not applicable	OK	OK
(a) Identify the financial/economic indicator, such as IRR, most suitable for the project type and decision context.	EB 65	Ann 21	Not applicable	OK	OK
(b) When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 65	Ann 21	Not applicable	OK	OK
(c) Discount rates and benchmarks shall be	EB	Ann	Not applicable	OK	OK



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<p>derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that</p>	65	21			



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the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.					
p. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 65	Ann 21	Not applicable	OK	OK
(a) Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 65	Ann 21	Not applicable	OK	OK
(b) Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 65	Ann 21	Not applicable	OK	OK
(c) Justify and/or cite assumptions.	EB	Ann	Not applicable	OK	OK



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(d) In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 65	Ann 21	Not applicable	OK	OK
(e) Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 65	Ann 21	Not applicable	OK	OK
(f) Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 65	Ann 21	Not applicable	OK	OK
q. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 65	Ann 21	Not applicable	OK	OK
r. Has the outcome of Step 2 clearly mentioned with justification?	EB 65	Ann 21	Not applicable	OK	OK
s. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 65	Ann 21	Not applicable	OK	OK
Sub-step 3a: Identify barriers that would	EB	Ann	Not applicable	OK	OK



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prevent the implementation of the proposed CDM project activity;	65	21			
Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	EB 65	Ann 21	Not applicable	OK	OK
t. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 65	Ann 21	Not applicable	OK	OK
I. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	EB 65	Ann 21	Not applicable	OK	OK
II. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to	EB 65	Ann 21	Not applicable	OK	OK



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an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity is not available in the relevant region.					
III. (c) Barriers due to prevailing practice: The project activity is the "first of its kind".	EB 65	Ann 21	Not applicable	OK	OK
IV. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 65	Ann 21	Not applicable	OK	OK
u. Has the outcome from Step 3a clearly mentioned in PDD?	EB 65	Ann 21	Not applicable	OK	OK
v. Has the below guideline followed for Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	EB 65	Ann 21	Not applicable	OK	OK



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(a) If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.	EB 65	Ann 21	Not applicable	OK	OK
(b) Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 65	Ann 21	Not applicable	OK	OK
(c) The type of evidence to be provided should include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by	EB 65	Ann 21	Not applicable	OK	OK



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universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centres), industry associations and others. Please specify.					
w. Has the outcome from Step 3 clearly mentioned in PDD?	EB 65	Ann 21	Not applicable	OK	OK
x. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 65	Ann 21	Not applicable	OK	OK
(a) Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 65	Ann 21	Not applicable	OK	OK
(b) Sub-step 4b: Discuss any similar Options that are occurring.	EB 65	Ann 21	Not applicable	OK	OK
y. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project	EB 65	Ann 21	Not applicable	OK	OK



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<p>activities are not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.</p>					
<p>z. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include</p>	EB 65	Ann 21	Not applicable	OK	OK



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justification about non-accessibility of data/information.					
aa. Has the outcome from Step 4 clearly mentioned in PDD?	EB 65	Ann 21	Not applicable	OK	OK
bb. Has it been proved that the project is additional?	EB 65	Ann 21	The project participant has proven that the proposed CDM project activity is additional with respect to the attachment A to appendix B of simplified modalities and procedures for small-scale CDM project activities (SSC M&P).	OK	OK
cc. Has the PP demonstrated additionality by explaining Attachment A to Appendix B including Investment barrier, Technological barrier, Barrier due to prevailing practice or other barriers?	EB 63	Ann 24	The proposed project activity does not demonstrated to be additional using Investment barrier, Technological barrier, Barrier due to prevailing practice or other barriers, as these barriers are not applicable to the solar photovoltaic technology based power generation.	OK	OK
dd. If Investment barrier has been explained, is it demonstrated that financially more viable alternative to the project activity would have led to higher emissions? Please explain.	EB 63	Ann 24	Not applicable	OK	OK
ee. If Technological barrier has been explained, is it demonstrated that a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions?	EB 63	Ann 24	Not applicable	OK	OK



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Please explain.					
ff. If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 63	Ann 24	Not applicable	OK	OK
gg. If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or capacity to absorb new technologies would prevent the project activity any way?	EB 63	Ann 24	Not applicable	OK	OK
hh. Have the project participants identified the most relevant barrier?	EB 63	Ann 24	Not applicable	OK	OK
ii. Does a proposed CDM project activity falls in a positive list of grid-connected renewable electricity generation technologies that are automatically defined as additional, without further documentation of barriers, consists of the following grid-connected renewable electricity generation technologies of installed capacity up to 15 MW including: I. Solar technologies (photovoltaic and solar thermal electricity generation) II. Off-shore wind technologies	EB 63	Ann 24	The proposed CDM project activity involves installation of grid connected Solar PV technologies based power generation using Thin film technology. As, the project activity falls under the positive list of grid-connected renewable electricity generation technologies that are automatically defined as additional, without further documentation of barriers. Also, the capacity of the proposed CDM project activity is 15 MW, which is the limit of General Guidance to SSC CDM methodologies.	OK	OK



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III. Marine technologies (wave, tidal)					
jj. Have the project participants provided transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc. to demonstrate the most relevant barrier? Please explain.	EB 63	Ann 24	Not applicable	OK	OK
<b>a. Prior consideration of the clean development mechanism</b>					
a. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	The project activity start date is 19/10/2010. The PDD was published for the global stakeholders' comments from 23/12/2011 to 21/01/2012. Thus, the start date is before the date of publication.	OK	OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	The CDM benefits were considered necessary in the decision to undertake the proposed CDM project activity.	OK	OK
➤ Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins"?	VVM	c.	The start date of the project activity is 19/10/2010, which is the date of the signing of Engineering, procurement and construction (EPC) contract for the project activity. This is in accordance with the "Glossary of CDM terms".	OK	OK
d. Does the project activity require	VVM	99	The proposed CDM project activity is a	OK	OK



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construction, retrofit or other modifications?			Greenfield project and hence does not require construction, retrofit or other modifications.		
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	Not applicable	OK	OK
f. Is it a new project activity (project activities with starting date on or after 02 August 2008) or an existing project activity (project activities with a start date before 02 August 2008)?	VVM	100	The start date of the project activity is 19/10/2010, which is after 02 August 2008 and hence, it is a new project activity.	OK	OK
g. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the Executive Board before the project activity start date, had the PP informed 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? (Provide reference to such confirmation from Host Party DNA and/or UNFCCC secretariat).	VVM	101	The project participant has informed 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  However, refer 1.3.o.iii (above) i.e CL 3	-	-
h. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	Since, the project activity is a new project activity having start date after 02 August 2008, this is not applicable.	OK	OK
(i) Evidence that must indicate that	VVM	102	Not applicable	OK	OK



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awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:					
(a) Minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?			Not applicable	OK	OK
(ii) Reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:	VVM	102	Not applicable	OK	OK
(iii) contract with consultants for CDM/PDD/methodology services?	VVM	102	Not applicable	OK	OK
(iv) Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds)?	VVM	102	Not applicable	OK	OK
(v) evidence of agreements or negotiations	VVM	102	Not applicable	OK	OK



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with a DOE for validation services?					
(vi) submission of a new methodology to the CDM Executive Board?	VVM	102	Not applicable	OK	OK
(vii) Publication in newspaper?	VVM	102	Not applicable	OK	OK
(viii) interviews with DNA?	VVM	102	Not applicable	OK	OK
(ix) earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	102	Not applicable	OK	OK
<b>b. Identification of alternatives</b>					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	The approved baseline and monitoring methodology applied by the proposed CDM project activity prescribe the baseline scenario in its paragraph 10 and 11.	OK	OK
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	Not applicable as the baseline scenario is prescribed by the applied methodology.	OK	OK
c. Does the list of alternatives given in the PDD ensure that:	VVM	106			
i. the list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity?	VVM	106	Not applicable	OK	OK
ii. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge,	VVM	106	Not applicable	OK	OK



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considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?					
iii. the alternatives comply with all applicable and enforced legislation?	VVM	106	Not applicable	OK	OK
<b>c. Investment analysis</b>					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	108	The project activity does not use the investment analysis to demonstrate the additionality of the proposed CDM project activity.	OK	OK
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108	Not applicable	OK	OK
i. the most economically or financially attractive alternative?	VVM	108			
ii. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108			
c. Was this shown by one of the following approaches?	VVM	109	Not applicable	OK	OK
i. Demonstrate that the proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed	VVM	109	Not applicable	OK	OK



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CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity.					
ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	Not applicable	OK	OK
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	109	Not applicable	OK	OK
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 62	Ann 5	Not applicable	OK	OK
e. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period?	EB 62	Ann 5	Not applicable	OK	OK
f. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 62	Ann 5	Not applicable	OK	OK



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g. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 62	Ann 5	Not applicable	OK	OK
h. Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 62	Ann 5	Not applicable	OK	OK
i. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 62	Ann 5	Not applicable	OK	OK
j. Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 62	Ann 5	Not applicable	OK	OK
k. Was depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g. IRR, NPV)?	EB 62	Ann 5	Not applicable	OK	OK
l. Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 62	Ann 5	Not applicable	OK	OK
m. Are the input values used in all investment	EB	Ann	Not applicable	OK	OK



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analysis valid and applicable at the time of the investment decision taken by the project participant?	62	5			
n. Is the timing of the investment decision consistent and appropriate with the input values?	EB 62	Ann 5	Not applicable	OK	OK
o. Are all the listed input values been consistently applied in all calculations?	EB 62	Ann 5	Not applicable	OK	OK
p. Does the investment analysis reflect the economic decision making context at point of the decision to recommence the project in the case of project activities for which implementation ceases after the commencement and where implementation is recommenced due to consideration of the CDM?	EB 62	Ann 5	Not applicable	OK	OK
q. Have project participants supplied the spreadsheet versions of all investment analysis?	EB 62	Ann 5	Not applicable	OK	OK
r. Are all formulas used in this analysis readable and all relevant cells be viewable and unprotected?	EB 62	Ann 5	Not applicable	OK	OK
s. In cases where the project participant does not wish to make such a spreadsheet available to the public has the PP provided an exact read-only or PDF copy for general publication?	EB 62	Ann 5	Not applicable	OK	OK



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t. In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 62	Ann 5	Not applicable	OK	OK
u. Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 62	Ann 5	Not applicable	OK	OK
v. In the calculation of equity IRR, has only the portion of investment costs which is financed by equity been considered as the net cash outflow?	EB 62	Ann 5	Not applicable	OK	OK
w. Has the portion of the investment costs which is financed by debt been considered a cash outflow in the calculation of equity IRR? (this is not allowed)	EB 62	Ann 5	Not applicable	OK	OK
x. Was a pre-tax benchmark be applied?	EB 62	Ann 5	Not applicable	OK	OK
y. In cases where a post-tax benchmark is applied, is actual interest payable taken into account in the calculation of income tax?	EB 62	Ann 5	Not applicable	OK	OK
z. In such situations, was interest calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years?	EB 62	Ann 5	Not applicable	OK	OK



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aa. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 62	Ann 5	Not applicable	OK	OK
bb. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 62	Ann 5	Not applicable	OK	OK
cc. Has required/expected returns on equity selected as appropriate benchmark for an equity IRR?	EB 62	Ann 5	Not applicable	OK	OK
dd. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 62	Ann 5	Not applicable	OK	OK
ee. In the cases of projects which could be developed by an entity other than the project participant is the benchmark applied based on publicly available data sources which can be clearly validated?	EB 62	Ann 5	Not applicable	OK	OK
ff. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital - WACC) been applied in cases where there is only one possible project developer?	EB 62	Ann 5	Not applicable	OK	OK
gg. In such cases, have these values been used	EB	Ann	Not applicable	OK	OK



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for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	62	5			
hh. Has a minimum clear evidence of the resolution by the company's Board and/or shareholders been provided to the effect as above?	EB 62	Ann 5	Not applicable	OK	OK
ii. Has a thorough assessment of the financial statements of the project developer - including the proposed WACC - to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conducted?	EB 62	Ann 5	Not applicable	OK	OK
jj. Does the risk premiums applied in the determination of required returns on equity reflect the risk profile of the project activity being assessed, established according to national/international accounting principles? (It is not considered reasonable to apply the rate general stock market returns as a risk premium for project activities that face a different risk profile than an investment in such indices.)	EB 62	Ann 5	Not applicable	OK	OK
kk. Has an investment comparison analysis and not a benchmark analysis used when the	EB 62	Ann 5	Not applicable	OK	OK



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proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services?					
ll. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets?	EB 62	Ann 5	Not applicable	OK	OK
mm. Have a corrective action been raised for a variable to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis ?	EB 62	Ann 5	Not applicable	OK	OK
nn. Is the range of variations selected is reasonable in the project context?	EB 62	Ann 5	Not applicable	OK	OK
oo. Does the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances?	EB 62	Ann 5	Not applicable	OK	OK
pp. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the	EB 62	Ann 5	Not applicable	OK	OK



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probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity?					
qq. Was the plant load factor defined ex-ante in the CDM-PDD according to one of the following options:	EB 62	Ann 5	Not applicable	OK	OK
i. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval?	EB 62	Ann 5			
ii. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)?	EB 62	Ann 5			
rr. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	Not applicable	OK	OK



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ss. Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices?	VVM	111	Not applicable	OK	OK
tt. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	111	Not applicable	OK	OK
uu. Was the correctness of computations carried out and documented by the project participants assessed?	VVM	111	Not applicable	OK	OK
vv. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions assessed?	VVM	111	Not applicable	OK	OK
ww. Is the type of benchmark applied suitable for the type of financial indicator presented?	VVM	112	Not applicable	OK	OK
xx. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	112	Not applicable	OK	OK
yy. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:			Not applicable	OK	OK
iii. assessing previous investment decisions by the project participants	VVM	112	Not applicable	OK	OK



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involved?					
iv. determining whether the same benchmark has been applied?	VVM	112	Not applicable	OK	OK
v. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	112	Not applicable	OK	OK
zz. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities?	VVM	113	Not applicable	OK	OK
xx. If yes:	VVM	113			
i. has the FSR 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 for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	Not applicable	OK	OK
ii. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	113	Not applicable	OK	OK
iii. If not, was the appropriateness of the values validated?	VVM	113	Not applicable	OK	OK
iv. On the basis of its specific local and sectoral expertise, is confirmation	VVM	113	Not applicable	OK	OK



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provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?					
<b>d. Barrier analysis</b>					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VVM	115	The project participant has not demonstrated the additionality using barrier analysis,	OK	OK
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	115	Not applicable	OK	OK
i. prevent the implementation of this type of proposed CMD project activity?	VVM	115			
ii. do not prevent the implementation of at least one of the alternatives?	VVM	115			
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis. [Refer to	VVM	116	Not applicable	OK	OK



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(6.c) above]					
d. Were the barriers determined as real by:	VVM	117	Not applicable	OK	OK
i. assssing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117			
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VVM	117			
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117			
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally	VVM	117	Not applicable	OK	OK



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prevent implementation of <i>at least one of</i> the possible alternatives, in particular the identified baseline scenario?					
<b>e. Common practice analysis</b>					
a. Is this a large-scale, or first-of-its kind small-scale project activity?	VVM	118	The proposed CDM project activity is a small-scale project and it's not a first-of-its-kind and hence, common practice analysis is not applicable.	OK	OK
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	118	Not applicable	OK	OK
c. Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologies the relevant region for assessment will be local and for others it may be transnational/global).	VVM	118	Not applicable	OK	OK
d. Was a region other than the entire host country chosen?	VVM	120	Not applicable	OK	OK
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	120	Not applicable	OK	OK
f. Using official sources and local and industry expertise, was it determined to what extent	VVM	120	Not applicable	OK	OK



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similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?					
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	Not applicable	OK	OK
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	Not applicable	OK	OK
<b>7. Monitoring plan</b>					
a. Does the PDD include a monitoring plan?	VVM	122	The web hosted PDD includes the description of monitoring parameters and monitoring plan in its section B.7.	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	The project participant has provided the monitoring plan in accordance with applied baseline and monitoring methodology AMS I D, version 17.	OK	OK
c. Were the list of parameters required by the the selected methodology identified?	VVM	123	The parameter required to be monitored as per the applied methodology is net electricity supplied by the project activity to grid, which is identified and included in the PDD.	OK	OK
d. Does the monitoring plan contains all necessary parameters?	VVM	123	The parameter required to be monitored as per the applied methodology is net electricity	OK	OK



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e. Are the parameters clearly described?	VVM	123	<p>supplied by the project activity to grid, which is identified and included in the PDD.</p> <p>Though the required parameter has been included in section B.7.1 of the PDD, the project participant is requested to clarify the followings:</p> <ul style="list-style-type: none"> <li>a) Appropriateness of the source of data for parameter <math>EG_{BL,Y}</math>.</li> <li>b) Description of measurement methods, procedures and QA/QC procedures are not explained explicitly in section B.7.1 of the PDD.</li> <li>c) Responsible entity for the data recording, calibration and calibration frequency is not consistent with the actual scenario observed/noted during site visit.scenario observed/noted during site visit.</li> </ul>	CL 8	
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	123	<ul style="list-style-type: none"> <li>a) Description of monitoring plan in section B.7.2 mentions the backup metering system, However during site visit on 21<sup>st</sup> Feb 2012 it has been observed that there</li> </ul>	CL 9	



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			<p>is only one meter installed at the project site. Please Clarify.</p> <p>b) In section B.7.2 of the PDD, the description of sealing and maintenance of the meter, it is not clear that who is responsible for the calibration of the meters including the calibrating agency and calibration frequency.</p> <p>c) The cross checking mechanism, data uncertainty and emergency preparedness has not been described in section B.7.2 of the PDD.</p>		
g. Have all relevant parameters been monitored as indicated in the table of the methodology? PI state any deviations/omissions.	AMS	I.D	The parameter required to be monitored as per the applied methodology is net electricity supplied by the project activity to grid, which is identified and included in the PDD.	OK	OK
h. Has the CO2 emission factor of the grid electricity measured either by Combined Margin or by the Weighted Average emission?	AMS	I.D	The CO2 emission factor of the grid electricity is determined by the combined margin emission factor calculations based on the CEA database. This value has been fixed ex ante for the entire crediting period and hence will not be monitored ex post.	OK	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Has the CO <sub>2</sub> emission factor of fossil fuel type i measured as per the .Tool to calculate project or leakage CO <sub>2</sub> emissions from fossil fuel combustion.”	AMS	I.D	There is no use of fossil fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK
j. Has the Net calorific value of fossil fuel type i measured as per the .Tool to calculate project or a leakage CO <sub>2</sub> emissions from fossil fuel combustion.	AMS	I.D	There is no use of fossil fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK
k. Has the Quantity of fossil fuel consumed in year y measured as per the .Tool to calculate project or a leakage CO <sub>2</sub> emissions from fossil fuel combustion.	AMS	I.D	There is no use of fossil fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK
l. Has the Quantity of net electricity supplied to the grid in year y measured using energy meters.	AMS	I.D	The quantity of the net electricity supplied to the grid in year y is measured using ABT energy meters.	OK	OK
m. Is the quantity of net electricity supplied to the grid in year y monitored/recorded - Continuous monitoring, hourly measurement and at least monthly recording? Notes on measurement method: - Calibration should be undertaken as prescribed in the relevant paragraph of General Guidelines to SSC Methodologies. - If applicable, measurement results shall be cross checked with records for sold/purchased electricity (e.g., invoices/receipts)	AMS	I.D	Refer 1.7.e and 1.7.f (above)	-	-



**BUREAU  
VERITAS**

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<p>- The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. If applicable, cross check net electricity supplied to a grid as gross energy generation in the project activity power plant minus the auxiliary/station electricity consumption, technical losses and electricity import from the grid to the project power plant measured at the grid interface/connection used for billing purposes</p>					
<p>n. Is the Quantity of biomass consumed in year y monitored/recorded Continuously or estimate using annual energy/mass balance? Notes on measurement method: - Use mass or volume based measurements. - Adjust for the moisture content in order to determine the quantity of dry biomass. - And/or perform an annual energy/mass balance that is based on purchased quantities and stock. - For projects consuming biomass and fossil fuel to produce electricity, a specific energy consumption<sup>11</sup> of each type of fuel</p>	AMS	I.D	There is no use of biomass fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
(biomass or fossil) to be used should be specified ex ante. The consumption of each type of fuel (biomass or fossil) shall be monitored. If fossil fuel is used, the electricity generation metered should be adjusted by deducting the electricity generation from fossil fuels using the specific energy consumption and the quantity of fossil fuel consumed. The amount of electricity generated using biomass fuels calculated then shall be compared with the amount of electricity generated calculated using specific energy consumption and amount of each type of biomass fuel used. The lower of the two values should be used to calculate emission reductions					
o. Is the Moisture content of the biomass residues monitored atleast on a monthly basis?	AMS	I.D	There is no use of biomass fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK
p. Is the weighted average of the moisture content calculated for each monitoring period and used in the calculations? Notes on measurement method: On-site measurements In case of dry biomass, monitoring of this	AMS	I.D	There is no use of biomass fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK



**BUREAU  
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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
parameter is not necessary					
q. Is Net calorific value of biomass residue type k monitored annually? Notes on measurement method: Measurement in laboratories according to relevant national/international standards. Measure the NCV based on dry biomass. Check the consistency of the measurements by comparing the measurement results with measurements from previous years, relevant data sources (e.g. values in the literature, values used in the national GHG inventory) and default values by the IPCC. If the measurement results differ significantly from previous measurements or other relevant data sources, conduct additional measurements	AMS	I.D	There is no use of biomass fuel as the proposed project activity involves grid connected solar power plant based on photovoltaic technology. Hence, this is not applicable.	OK	OK
r. Is the Standard deviation of the annual average historical net electricity generation delivered to the grid by the existing renewable energy plant that was operated at the project site prior to the implementation of the project activity calculated from data used to establish $EG_{\text{historical}}$ ?	AMS	I.D	There was not any exiting renewable plant prior to the project activity. The proposed project activity is green field grid connected solar power plant based on photovoltaic thin film technology. Hence, this is not applicable.	OK	OK
s. Is the parameters relevant to reservoir based hydro and geothermal plants monitored following the most recent version	AMS	I.D	The proposed project activity is grid connected solar power plant based on photovoltaic thin film technology. Hence, this is not applicable.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
of ACM0002?					
t. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	Refer to CLs mentioned above in this section of the protocol for inadequacy in section B.7 of the web hosted PDD.	-	-
u. Does the monitoring plan provide details regarding calibration of monitoring equipments/ instruments or does it include zero check as a substitute for calibration? (zero check can not be considered as a substitute for calibration)	EB 24	37	Refer to CLs mentioned above in this section of the protocol for inadequacy in section B.7 of the web hosted PDD.	-	-
v. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123			
i. data management procedures?	VVM	123	Refer to 1.7.e and 1.7.f (above)	-	-
ii. quality assurance procedures?	VVM	123	Refer to 1.7.e and 1.7.f (above)	-	-
iii. quality control procedures?	VVM	123	Refer to 1.7.e and 1.7.f (above)	-	-
<b>8. Sustainable development</b>					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	Host Country Approval has not been submitted by the PP.	(CL-1)	
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the	VVM	126	Host Country Approval has not been submitted by the PP.	(CL-1)	



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
sustainable development of the host Party?					
<b>9. Local stakeholder consultation</b>					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	The project participant conducted a local stakeholders' consultation meeting on 10/09/2011 at Anand district of Gujarat, which was prior to the publication of the PDD on the UNFCCC website for global stakeholders' consultation from 23/12/2011 to 21/01/2012. The project participant invited residents of nearby village of Wadgam, tali talao and employees of ACME Solar Technologies (Gujarat) Private Limited. The same has been verified during site visit conducted on 21/02/2012 and cross checked with attendance sheet provided by project participants.	OK	OK
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	The comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited during local stakeholders' consultation meeting.	OK	OK
c. Is the summary of the comments received as provided in the PDD complete?	VVM	129	The summary of the comments are provided in section E.2 of the PDD.	OK	OK
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	There was no negative comment received from the local stakeholders.	OK	OK
<b>10. Environmental impacts</b>					



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## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	The project activity being electricity generation using renewable source of energy, it does not require EIA to be conducted as per Ministry of Environment and Forests (MoEF), Government of India notification S.O. 1533 (E) dated 14/09/2006.	OK	OK
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	Not applicable as commented above.	OK	OK
c. Does the host Party require an environmental impact assessment?	VVM	132	Ministry of Environment and Forests (MoEF), Government of India notification S.O. 1533 (E) dated 14/09/2006 does not require environment impact assessment of the proposed CDM project activity.	OK	OK
d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	Not applicable	OK	OK



## VALIDATION REPORT

**Table 2 Specific validation activities**

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>1. Project design of small-scale clean development mechanism project activities</b>					
a. Does the proposed small-scale project activity meet the requirements of the simplified modalities and procedures for small-scale CDM project activities?	VVM	133	The proposed CDM project activity involves solar energy based power plant with Solar photovoltaic thin film technology with installed capacity of 15 MW, which is the defined limit of the small scale project activity. Hence it meets the requirement of the simplified M & P of the SSC project activities.	OK	OK
b. Does the project activity qualify within the thresholds of the three possible types of small scale project activities? [Type (i) project activities: renewable energy project activities with a maximum output capacity equivalent to up to 15 megawatts; Type (ii) project activities: energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 15 gigawatt hours per year; Type (iii) project activities: other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnes of carbon dioxide equivalent annually.]	VVM	134	The project activity qualifies the thresholds of the 15 MW <sub>electrical</sub> , as the proposed CDM project activity is Type I project involving implementation and operation of the 15 MW solar power plant including Solar Photovoltaic thin film technology.	OK	OK
c. Does the project activity conform to one of	VVM	134	The project activity conforms to the approved	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the approved small-scale categories?			small-scale category of “Grid connected renewable electricity generation”.		
d. Does the project activity apply the relevant tool and methodology?	VVM	134	The project activity applies relevant methodology AMS I D, version 17 and “Tool to calculate emission factor for an electricity system”.	OK	OK
e. Are the small-scale methodologies applied in conjunction with the general guidance to the methodologies, which provides guidance on equipment capacity, equipment performance, sampling and other monitoring-related issues?	VVM	134	The SSC methodology applied is found to be in conjunction with General Guidance to the SSC methodologies.	OK	OK
f. Is the project activity a debundled component of a large-scale project, i.e., is there a registered small-scale CDM project activity or an application to register another CDM project activity: (a) with the same project participants; (b) in the same project category and technology/measure; and (c) registered within the previous 2 years; and (d) whose project boundary is within 1 km of the proposed boundary of the proposed small-scale activity at the closest point?	VVM	134	The project activity is not debundled project activity of a large-scale project as this is the first CDM project of the project participant.	OK	OK
g. Is and assessment of the environmental impacts of the proposed CDM project activity required by the host Party?	VVM	134	The host party does not require assessment of environment impact of the proposed CDM project activity.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
h. Is the project additional?	VVM	135	The project is additional in accordance with Attachment A to Appendix B, version 8.	OK	OK

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



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<b>CAR 1</b> National policies and circumstances relevant to the baseline of the proposed CDM project activity have not been provided in accordance with Annex 3 of EB 22. Please explain.	Table1 1.3.o.ii	<b>PP Response-1:</b> Section B.5 of the CDM PDD has now been revised to include the existing national policies and circumstances relevant to the baseline of the project in accordance with Annex 3 of EB 22.	<b>Validation Conclusion- 1:</b> National Policies and circumstances relevant to the baseline of the proposed CDM project activity has been provided in section B.5 of the revised PDD. <b>Hence CAR 1 is Closed</b>
<b>CAR 2</b> Section B.6.1 does not explain the selection of the options available for the calculations of grid emission factor, though the same has been explained in section B.4 of the PDD.	Table1 1.3.p.ii	<b>PP Response-1:</b> Option (a) of Para 12 of the applied methodology AMS-I.D Version 17, has been used and the same has been now mentioned in section B.6.1 of the PDD.	<b>Validation Conclusion- 1:</b> The project participants has used option (a) of the para 12 of the applied methodology AMS I.D version 17 and calculated the emission factor as per combined margin approach and the same has been mentioned in Section B.6.1 of the revised PDD. <b>Hence CAR 2 is Closed</b>
<b>CAR 3</b> In section B.6.2 of the PDD the notation of the parameters is not in accordance with	Table1 1.3.q.iii	<b>PP Response-1:</b> The notation of the parameters operating margin, build margin	<b>Validation Conclusion- 1:</b> The notation of the parameters OM, BM and CM has been



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
applied methodology and tool to calculate emission factor for an electricity system.		and combined margin emission factor has been changed in accordance with applied methodology and tool to calculate emission factor for an electricity system.	changed in accordance with applied methodology and tool to calculate emission factor for an electricity system. <b>Hence CAR 3 is Closed</b>
<b>CAR 4</b> No information has been provided in section C.2.1 of the web hosted PDD. Please explain.	Table1 1.3.y	<b>PP Response-1:</b> The project activity will use renewable crediting period. The maximum length of the first crediting period will be 7 years and 0 months, and it can be renewable two times. The same has been included in section C.2.1 of the revised PDD.	<b>Validation Conclusion- 1:</b> The project participants will use renewable crediting period and the maximum length of the crediting period will be 7 years and it can be renewed two times. The same has been mentioned in section C.2.1 of the revised PDD.  <b>Hence CAR 4 is Closed</b>
<b>CAR 5</b> Starting date of the crediting period provided in section C.2.1.1 is not in accordance with para 25 Annex 12 of EB 59. Please explain.	Table1 1.3.z	<b>PP Response-1:</b> The start date of the first crediting period has been revised as 01/12/2012 in accordance with the provisions of the CDM Modalities and Procedures.	<b>Validation Conclusion- 1:</b> The start date of the crediting period has been revised and mentioned as 01/12/2012 in section C.2.1.1 of the PDD, which is in accordance with para 25 Annex 12 of EB 59.



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
			<b>Hence CAR 5 is Closed</b>
<p><b>CL 1</b></p> <p>Host Country Approval has not been submitted by the PP.</p>	<p>Table1 1.1.a</p>	<p><b>PP Response-1:</b></p> <p>ATPL has already applied for Host Country Approval (HCA) with the DNA. The HCA letter will be provided to the DOE as soon as it is received from the DNA.</p>	<p><b>Validation Conclusion- 1:</b></p> <p>The project participants has not provided the Host Country Approval</p> <p><b>Hence CL 1 is Open</b></p>
<p><b>CL 2</b></p> <p>The project participant has provided its views on the contribution of the project activity to sustainable development of the host country in accordance with the host country's NCDMA criteria.</p> <p>However, Technological well being mentions that <i>"the project activity uses thin film CdTe solar photovoltaic technology for large scale power generation thereby demonstrating the viability of the solar based projects in the region"</i></p> <p>This information is not justifiable with the capacity mentioned in section A.2 of the PDD. Please Clarify.</p>	<p>Table1 1.3.d.iii</p>	<p><b>PP Response-1:</b></p> <p>The statement <i>"large scale power generation"</i> means MW scale power generation and does not represent the scale as per CDM criteria. However, to avoid confusion, the statement has been revised as <i>"the project activity uses thin film CdTe solar photovoltaic technology for grid connected power generation thereby demonstrating the viability of the solar based projects in the region"</i>.</p>	<p><b>Validation Conclusion- 1:</b></p> <p>The project participant has revised the sentence as <i>"the project activity uses thin film CdTe solar photovoltaic technology for grid connected power generation thereby demonstrating the viability of the solar based projects in the region"</i>, which is now appropriate to the project activity.</p> <p><b>Hence CL 2 is Closed</b></p>



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<p><b>CL 3</b> In section B.5 of the PDD, PP has mentioned that the intimation has been sent to UNFCCC on 22/06/2010 with the name of ATPL as project participants for the project activity and at later stage after change of location and ASTGPL as project participant, an intimation was again sent to UNFCCC on 8<sup>th</sup> April 2011 and again an amended intimation was sent to UNFCCC on 23<sup>rd</sup> Aug 2011 since the name of the entity in Section 2 was not correctly mentioned in the F-CDM form sent on 8<sup>th</sup> April 2011.</p> <p>However, intimation sent to the UNFCCC with the correct name of the PP cannot be traced from the UNFCCC website. Please clarify.</p>	<p>Table1 1.3.o.iii</p>	<p><b>PP Response-1:</b> The same issue was raised with the CDM Secretariat through email communication dated 23/08/2011. PP received the following reply from CDM Secretariat through email communication dated 02/12/2011, <i>“Please inform the validating DOE of all updates, including slight changes to the entity name, or contextual details or developments, related to this project during the period of validation, and indicate such details clearly in the PDD and supporting documents submitted during validation and request for registration. The validating DOE is responsible for verifying that the change in entity name still applies to the same project for which the original Prior Consideration notification was submitted.”</i> Hence DOE could validate the same</p>	<p><b>Validation Conclusion- 1:</b> The project participant has submitted the F-CDM form dated 21/06/2010, 08/04/2011 and 23/08/2011 which was submitted to the UNFCCC. The project participant has intimated to UNFCCC on 22/06/2010, which was prior to the start date of the project activity and the same can be viewed on the UNFCCC website. However, the location of the project activity and name of the project participant was changed, same has been cross verified from the supplemental PPA for location change and change in name of PP. The project participant again sent the intimation to UNFCCC with changed location on 08/04/2011, which can be viewed on the UNFCCC website. However, the authorized signatory was not</p>



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
		through the email communications sent along with the prior consideration of CDM forms to CDM Secretariat.	<p>mentioned correctly, so the project participant has again sent the intimation to UNFCCC on 23/08/2011 with the updated information relevant to the project activity.</p> <p>Based on the above observation, the validation team confirms that the project participant has informed UNFCCC with all updated information related to proposed project activity on 23/08/2011 and also all the prior considerations form sent to UNFCCC were related to same proposed project activity.</p> <p><b>Hence, CL 3 is Closed</b></p>
<p><b>CL 4</b> The expected lifetime of the project activity has been provided as 25 years and 0 months in section C.1.2 of the PDD. However, the expected lifetime has not been substantiated with documentary evidence.</p>	Table1 1.3.w	<p><b>PP Response-1:</b> As per the technical specifications provided by the technology supplier, the lifetime of the project will be 25 years. Technical datasheet of the solar PV modules</p>	<p><b>Validation Conclusion- 1:</b> The project participant has provided the technical specification of the modules, which provide the performance warranty for 25 years and also the</p>



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
		<p>installed at the plant has already been provided to the DOE. Further, the lifetime of solar PV projects could also be substantiated from the GERC Order dated 29/01/2010 (<a href="http://www.gercin.org/renewablepdf/en_1303211935.pdf">http://www.gercin.org/renewablepdf/en_1303211935.pdf</a>), which clearly mentions the lifetime of solar PV power projects as 25 years.</p>	<p>validation team has checked the GERC Order dated 29/01/2010, which clearly mentions that the life time of the Solar PV power project is 25 years.</p> <p><b>Hence CL 4 is Closed</b></p>
<p><b>CL 5</b> The description on technology implemented has been provided in section A.4.2 of the PDD.</p> <p>However, the number of PV modules to be installed of each type is not clear. Please clarify.</p>	Table1 1.4.a	<p><b>PP Response-1:</b></p> <p>The 15 MW Solar PV Power plant has been commissioned and the GEDA commissioning certificate dated 17/03/2012 has been submitted to the DOE clearly mentioning the number of modules installed at the plant. The same has also been mentioned in section A.4.2 of the PDD.</p>	<p><b>Validation Conclusion- 1:</b></p> <p>The number of PV modules installed at the site of each type is clearly mentioned in section A.4.2 of the revised PDD. The same is consistent with the number of modules mentioned in Commissioning certificate dated 17/03/2012 issued by Gujarat Energy Development Agency.</p> <p><b>Hence, CL 5 is Closed</b></p>



## VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<p><b>CL 6</b> The project participant has justified the applicability conditions of the methodology in section B.2 of the PDD. However, the justification provided for applicability condition 4 and 5 is not appropriate.</p>	<p>Table1 1.5.b.g</p>	<p><b>PP Response-1:</b> The project activity is not a hydro power plant. Thus, criterion 4 is not applicable to the project activity.  The project activity has only renewable component i.e. solar PV generated power with 15 MW capacity, which meets the eligibility of 15 MW for a small-scale CDM project activity. Further, the project does not involve any use of fossil fuel. Thus, criterion 5 is also not applicable to the project activity. The same has now been included in section B.2 of the revised PDD.</p>	<p><b>Validation Conclusion- 1:</b> The PP has provided the clear justification of applicability condition 4 and 5 in section B.2 of the revised PDD.  <b>Hence, CL 6 is Closed</b></p>
<p><b>CL 7</b> The emission factor has been calculated transparently using option (a) of the paragraph 12 of the applied baseline and monitoring methodology AMS I D, version</p>	<p>Table1 5.d.b.iii</p>	<p><b>PP Response-1:</b> At the time of webhosting of the CDM PDD of the project activity, the latest versions available for</p>	<p><b>Validation Conclusion- 1:</b> The project participants stated that there will be no impact on emission factor calculated by using CEA data base version 6.0, which is based on</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<p>17.</p> <p>However, the project participant has used version 6 of CEA database, which uses version 2.0 of the tool to calculate emission factor for an electricity system. The web hosted PDD correctly uses the latest version of the tool available at the time of validation i.e. version 2.2.1 of tool to calculate emission factor for an electricity system.</p> <p>However, PP is requested to clarify the appropriateness of use of two different versions of the tool for the determination of the same parameter.</p>		<p>“Tool to calculate emission factor for an electricity system” Version 2.2.1 and CO<sub>2</sub> Baseline Database for the Indian Power Sector prepared by Central Electricity Authority, Version 6.0 have been applied.</p> <p>Kindly note that the revision of version 2.0 of “Tool to calculate emission factor for an electricity system” to version 2.2.1 had no impact on the calculation of the Emission Factor since it included mainly editorial amendments and changes applicable to LDCs and connected electricity systems located in countries other than the project host country. Further, the revision in steps to calculate build margin resulted in the same sample group of power units in India for calculation of Build Margin, thus rendering it the same. Hence, no revisions are</p>	<p>“Tool to calculate emission factor of an electricity system” version 2.0</p> <p>To verify the same validation team has compared both the versions (version 2.1.1 and version 2.0) of “Tool to calculate emission factor for an electricity system” and found that:-</p> <p>“Tool to calculate the emission factor for an electricity system” (Version 2.0) indicates under Step 1 that the emission factor is considered as zero in case if, import from connected electricity system located in another host party and “Tool to calculate the emission factor for an electricity system” (Version 2.1.1) (Ref/19/) indicates under applicability that the tool is not applicable, if the project electricity system is located partially or fully in an Annex -1 country.</p> <p>The proposed project activity is</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
		necessary.	<p>connected to NEWNE Grid, which is well defined and is not located partially or fully in Annex-1 country or in another host country, Hence both, the Step 1 of the version 2.0 and the applicability of the version 2.1.1 of the tool is not applicable to the project activity. In addition to this both the versions of the tools are using same group of Power plants to calculate OM and BM. Hence the validation team accepts the fact that the emission factor calculated on the basis of version 2.1.1 or version 2.0 of "Tool to calculate emission factor for an electricity system" will not affect the value of the emission factor .</p> <p><b>Hence, CL 7 is closed</b></p>
<p><b>CL 8</b> Though the required parameter has been included in section B.7.1 of the PDD, the project participant is requested to clarify the followings:</p>	Table1 1.7.e	<p><b>PP Response-1:</b> a) <math>EG_{BL,Y}</math> is the net electricity that will be supplied to the regional grid and this will be sourced</p>	<p><b>Validation Conclusion- 1:</b> a) The monitored parameter <math>EG_{BL}</math>, will be calculated as the difference between electricity</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<p>d) Appropriateness of the source of data for parameter <math>EG_{BL,Y}</math>.</p> <p>e) Description of measurement methods, procedures and QA/QC procedures are not explained explicitly in section B.7.1 of the PDD.</p> <p>f) Responsible entity for the data recording, calibration and calibration frequency is not consistent with the actual scenario observed/noted during site visit.</p>		<p>from the monthly electricity generation report uploaded on State Local Dispatch Centre website. The net electricity exported/supplied to the grid will be calculated as the difference between the measured quantities of the grid electricity export and the import. The monthly electricity generation report uploaded on SLDC website clearly mentions the grid electricity export and import.</p> <p>b) Section B.7.1 of the PDD has been revised to include the description of measurement methods and procedures and QA/QC procedures.</p> <p>c) Grid electricity export and</p>	<p>export and electricity import. The monthly electricity generation report uploaded on SLDC website clearly mentions the grid electricity export and import.</p> <p>The PP has clearly mentioned in the revised PDD that the parameter <math>EG_{EXPORT}</math> and <math>EG_{IMPORT}</math> will be monitored and sourced from monthly electricity generation report and net electricity generation (<math>EG_{BL,Y}</math>) from the project activity will be calculated.</p> <p><b>Hence CL 8 (a) is Closed</b></p> <p><b>Validation Conclusion- 1:</b></p> <p>b) The measurement methods, procedures and QA/QC procedures are explained in section B.7.1 of the revised PDD for the monitored parameter.</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
		import will be recorded at least once a month by representatives of the State utility and ATGPL. Calibration will be done by an authorized agency or reputed laboratory. The same has now been mentioned in section B.7.1 and B.7.2 of the PDD.	<p><b>Hence CL 8 (b) is Closed</b></p> <p><b>Validation Conclusion- 1:</b></p> <p>c) Responsible entity for the data recording and calibration frequency has been mentioned in section B.7.1 of the revised PDD and the same is consistent with the observation made during Site visit.</p> <p><b>Hence, CL 8 (c) is closed</b></p>
<p><b>CL 9</b></p> <p>a) Description of monitoring plan in section B.7.2 mentions the backup metering system, However during site visit on 21<sup>st</sup> Feb 2012 it has been observed that there is only one meter installed at the project site. Please</p>	<p>Table1 1.7.f</p>	<p><b>PP Response-1:</b></p> <p>a) Section B.7.2 of the PDD has been revised to include the updated monitoring plan followed at the commissioned plant. ABT Main meters, two in number (one for each bay or line), will be installed at the</p>	<p><b>Validation Conclusion- 1:</b></p> <p>a) PP has clarified that the dedicated meters for the project activity are installed at GETCO substation and the same will be used as check meter, in case of failure of main meter installed at project site.</p> <p>The description provided in</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
<p>Clarify.</p> <p>b) In section B.7.2 of the PDD, the description of sealing and maintenance of the meter, it is not clear that who is responsible for the calibration of the meters including the calibrating agency and calibration frequency.</p> <p>c) The cross checking mechanism, data uncertainty and emergency preparedness has not been described in section B.7.2 of the PDD.</p>		<p>plant to continuously monitor the grid electricity export and import. There is no backup metering system at the plant site but in the event that the main meters at the plant are not in service as a result of maintenance, repairs or testing, then two dedicated meters at the GETCO substation will be used as the backup metering system for recording electricity generation data. The same has now been mentioned at section B.7.2 of the revised PDD.</p> <p>b) Calibration of all the meters will be undertaken at least once in three years, in line with the small scale CDM guidelines and faulty meters</p>	<p>section B.7.2 of the PDD is consistent with the observation made during site visit.</p> <p><b>Hence CL 9 (a) is Closed</b></p> <p><b>Validation Conclusion- 1:</b> b) The responsible entity of calibration and calibration frequency is now clearly described in section B.7.2 of the revised PDD.</p> <p><b>Hence, CL 9 (b) is Closed</b></p> <p><b>Validation Conclusion- 1:</b> c) The detail description regarding cross checking mechanism, data uncertainty and emergency preparedness has been provided in section B.7.2 of the revised PDD.</p> <p><b>Hence, CL 9 (c) is Closed</b></p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in Table 1 and 2	Summary of project owner response	Validation team conclusion
		<p>will be duly replaced immediately. Calibration will be done by an authorized agency or reputed laboratory. The same has now been mentioned at section B.7.2 of the revised PDD.</p> <p>c) In case Main meters are found to be outside the acceptable limits of accuracy or faulty or not functioning properly, it will be repaired, recalibrated or replaced as soon as possible. In the event that the Main meters are not in service as a result of maintenance, repairs or testing, then two dedicated meters at the GETCO substation will be used. The main meter reading will be cross checked with records for</p>	



VALIDATION REPORT

<b>Draft report clarifications and corrective action requests by validation team</b>	<b>Ref. To checklist question in Table 1 and 2</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>
		sold electricity (invoices). The same has now been mentioned in section B.7.2 of the revised PDD.	



## APPENDIX B: COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Validation of CDM projects, the DOE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

BUREAU VERITAS CERTIFICATION published the project documents on the UNFCCC CDM website (<http://cdm.unfccc.int>) on 23/12/2011 and invited comments till 21/01/2012 by Parties, stakeholders and non-governmental organizations. The table below describes how due account of the comments received for the CDM project “ 15 MW Solar Photovoltaic Power Project at Gujarat ” by ACME Solar technologies (Gujarat) Private Limited was taken by Bureau Veritas Certification.

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
1	Submitted by Mahesh Pandya		<ul style="list-style-type: none"> <li>Why this location has been chosen for this project?</li> <li>Will this</li> </ul>	<ul style="list-style-type: none"> <li>The location has been chosen after detailed evaluation of the characteristics of the site. The proposed land area is barren and unfit for agricultural or other livelihood activities. Further, there is no habitation in the area and hence there has been no requirement for rehabilitation of anyone. The land has been found to have high potential to generate solar power.</li> <li>The project will not have any impact on the temperature in the area since this is a solar power project utilizing</li> </ul>	<ul style="list-style-type: none"> <li>The location of the project activity was known to the project participant, as the PP has sent the prior consideration F-CDM form even prior to the start of the project activity. The location was selected after detail evaluation of the site and same has been cross verified from the DPR submitted by the PP. The query has been closed.</li> <li>The proposed project</li> </ul>



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>project have impact on temperature in surrounding area?</p> <ul style="list-style-type: none"> <li>What would be impact of negative environmental conditions of area upon project? What would be alternatives in that case?</li> <li>How many skilled/unskilled</li> </ul>	<p>the already available solar radiation in the surrounding region to generate electricity. Fossil fuels are not being used to generate electricity.</p> <ul style="list-style-type: none"> <li>No negative environmental conditions have been observed in the area to have any material impact on the project activity.</li> <li>The solar PV power plant has been commissioned now. Following are the details of skilled and unskilled people employed for the project activity. Most of these people were employed from the surrounding region. Skilled employees at Construction Phase : 75; Unskilled employees at Construction Phase : 600; Skilled employees at Operation Phase : 8; Unskilled Laborers at Operation Phase: 25</li> <li>List of stakeholders and the minutes of meeting have been submitted to the DOE.</li> </ul>	<p>activity will not have any impact on the temperature in the area. The validation team has reviewed the Consent to establish and Consent to establish issued by Gujarat Pollution control board. The query has been closed.</p> <ul style="list-style-type: none"> <li>There are no environment impact on the environment. The same is verified by Consent to establish and Consent to establish issued by Gujarat Pollution control board. The query has been closed.</li> <li>The validation team has conducted a site visit on 21/02/2012 and interviewed the local villagers, who were employed during construction of the project activity and also who were employed as staff after commissioning of the project activity. The query has been closed.</li> </ul>



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>people from surrounding area will be employed at this project during commissioning and operation?</p> <ul style="list-style-type: none"> <li>List of stakeholders present in meeting is not attached with PDD.</li> </ul>		<ul style="list-style-type: none"> <li>List of stakeholders attended the meeting were provided the DOE and also the list of persons who made the comment during the meeting were incorporated in section E.2 of the PDD. The query has been closed.</li> </ul>
2	Submitted by Mahela		Has the PP considered the CDM revenues while envisaging the project?	In line with the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified	The proposed project activity is automatically additional as the project activity comes under



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
	jayavardane		<p>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</p>	<p>baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality. Hence the comments made here are not applicable to the project activity.</p>	<p>positive list of technology, which is defined in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories. Hence investment analysis is not required to prove additionality. Hence the query has been closed</p>



VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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</p>		



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>is talking about in this project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation.</p>		
3	Submitted by Mahela jayavardane		<p>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</p>	<p>The equipments and modules installed at the solar PV power plant are new and have been purchased from world renowned manufacturers. Also, since the project is automatically additional, PP is not required to do the investment analysis for the project. Thus, the comment here is not applicable to the project activity.</p>	<p>All the equipments installed at the project site are newly purchased. The same has been cross checked with the EPC contract with ACMEtele power services dated 19/10/2010. However, validation team observed that the type of solar panels mentioned in the webhosted PDD, However the number of modules were not mentioned. Hence, CL 5 was raised and the same is closed when PP updated the section</p>



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			DOE by checking all documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst.		A.4.2 of the PDD. The query has been closed.
4	Submitted by Mahela jayavardane		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	The comment is a generic comment and not specific to the project activity. The comments seem to have been made for the DOE challenging their procedures for validation.	The DOE is not involved in marketing. Request for quotation for validation service was received by the PP and the DOE submitted a proposal for validation



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>ages. DOE should send auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please.</p>		
5	Submitted by Mahela jayavardane		<p>If applicable only: Is these machines, equipment was a part of any bundle of CDM activity envisaged and developed earlier. DOE</p>	<p>The equipments and modules installed at the solar PV power plant are new and have been purchased from world renowned manufacturers. None of the equipments were part of any other bundle of CDM activity envisaged and developed</p>	<p>The equipments installed in the project activity are new equipments as verified from the EPC contract and they were not a part of any bundle CDM project activity.</p>



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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.</p>	<p>earlier.</p>	



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
6	Submitted by Mahela jayavardane		DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project	All the values in the CDM PDD are consistent and the DOE could validate the same.	All the values considered in the PDD are consistent.
7	Submitted by Mahela jayavardane		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.	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team
8	Submitted by Mahela jayavardane		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.	There were no different versions prepared for the DPR. The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
9	Submitted by Mahela jayavardane		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.	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team
10	Submitted by Mahela jayavardane		DOE to write to the party who prepared the DPR/FR which is submitted to the banks	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			and other agencies and the same is verified against the one submitted to the DOE by PP/Consultant.	determining the PLF for the project. Kindly note that most of these comments related to DPR seems to have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	
11	Submitted by Mahela jayavardane		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. 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	The baseline for the project has been identified as per guidelines of the applicable small scale methodology AMS.I.D (Version 17), <i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid."</i> Further, in light of the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team  Baseline of the project activity is prescribed by the applied methodology itself i.e. <i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid."</i> Hence, this query is closed



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## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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</p>	<p>proving the additionality. The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.</p>	



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## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			considered as a real DPR or FR. UNFCCC CDM process cannot be degraded by fabricating and misinterpreting the project base line and additionality.		
12	Submitted by Mahela jayavardane		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	In line with the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality. Hence the comment is not applicable to the project activity.	The cost related to project need to be considered, if project activity involves the financial calculation to prove the additionality of the project. However, the proposed project activity is automatically additional as per "CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories".  Hence, no financial calculation involved and the query is closed



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## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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</p>		



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			at all in such a situation.		
13	Submitted by Mahela jayavardane		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.	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team
14	Submitted by Benjamin franklin		Has the PP considered the CDM revenues while envisaging the project? Without CDM the project	In line with the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies	The proposed project activity is automatically additional as per "CDM EB decision referred in Attachment A of Appendix B (EB



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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</p>	<p>for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality. Hence the comment is not applicable to the project activity.</p>	<p>63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories".</p> <p>Hence, no financial calculation involved and the query is closed</p>


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## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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</p>		



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation.</p>		
15	Submitted by Benjamin franklin		<p>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</p>	<p>The equipments and modules installed at the solar PV power plant are new and have been purchased from world renowned manufacturers.</p>	<p>The equipments and modules installed at the site are new. The same has been cross verified through the purchase order issued to First solar by the EPC contractor ACME Tele Power limited dated 15<sup>th</sup> November 2010</p>



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst.		
16	Submitted by Benjamin franklin		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	The comment is a generic comment and not specific to the project activity. The comments seem to have been made for the DOE challenging their procedures for validation.	The DOE is not involved in marketing. Request for quotation for validation service was received by the PP and the DOE submitted a proposal for validation.



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please.</p>		
17	Submitted by Benjamin franklin		<p>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</p>	<p>The equipments and modules installed at the solar PV power plant are new and have been purchased from world renowned manufacturers. None of the equipments were part of any other bundle of CDM activity envisaged and developed earlier.</p>	<p>The equipments installed in the project activity are new equipments as verified from the purchase orders and they were not a part of any bundle CDM project activity.</p>



VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			<p>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.</p>		



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
18	Submitted by Benjamin franklin		DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project	All the values in the CDM PDD are consistent and the DOE could validate the same.	All the values considered in the PDD are consistent.
19	Submitted by Benjamin franklin		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.	In line with the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality. The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
20	Submitted by Benjamin franklin		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.	There were no different versions prepared for the DPR. The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team
21	Submitted by Benjamin franklin		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	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			different parties without informing the PP or Consultant to cross check the facts.		
22	Submitted by Benjamin franklin		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.	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line with the CDM guidelines.	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team
23	Submitted by Benjamin franklin		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	The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project. Kindly note that most of these comments related to DPR have been made in consideration of the financial additionality of the project, which is not the case with this particular project activity as the project is automatically additional in line	DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team



## VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			making time.	with the CDM guidelines.	
24	Submitted by Benjamin franklin		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	The baseline for the project has been identified as per guidelines of the applicable small scale methodology AMS.I.D (Version 17), <i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid."</i> Further, in light of the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality. Hence, the third party DPR has been referred in the PDD only for assuming the CUF for the project.	Baseline of the project activity is prescribed by the applied methodology itself i.e. <i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid."</i>  Hence, this query is closed



**BUREAU  
VERITAS**

## VALIDATION REPORT

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			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.		
25	Submitted by Benjamin franklin		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	In light of the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality and hence the comment is	The cost related to project need to be considered, if project activity involves the financial calculation to prove the additionality of the project. However, the proposed project activity is automatically additional as per "CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline



## VALIDATION REPORT

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			<p>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</p>	not applicable to the project activity.	<p>and monitoring methodologies for selected small-scale CDM project activity categories".</p> <p>Hence, no financial calculation involved and the query is closed</p>



## VALIDATION REPORT

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			<p>or second quality equipment and inflating the purchase order values and invoices, this must be probed thoroughly and real values to taken for additionality calculation. Then I'm sure the additionality is not there at all in such a situation.</p>		
26	Submitted by Benjamin franklin		<p>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</p>	<p>In light of the CDM EB decision referred in Attachment A of Appendix B (EB 63, Annex 24) of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, the project activity is automatically additional. Thus, the project proponent is not required to do the investment analysis for proving the additionality.</p> <p>The DPR for the project was prepared by an independent third party agency and the same has been submitted to the DOE. The DPR has been referred for determining the PLF for the project.</p>	<p>DPR submitted by project participant is prepared by third party i.e Sgurr Energy. Hence accepted by the validation team</p>



VALIDATION REPORT

Sr. No.	Details of the commenter	Date of Comment	Comment [unedited]	Response by project participant	Explanation on how account is taken by DOE
			that the real DPR/FR given to other parties by the PP/Consultant is same as the one submitted to DOE.		