



VALIDATION REPORT

HUSK POWER SYSTEMS PRIVATE LIMITED

PoA TITLE

SUSTAINABLE DEVELOPMENT PROGRAMME OF
RURAL ELECTRIFICATION BY HUSK POWER SYSTEMS

CPA TITLE

SUSTAINABLE DEVELOPMENT PROGRAMME OF RURAL
ELECTRIFICATION BY HUSK POWER SYSTEMS -001

REPORT No.

CDM.11.VAL.178.POA



Date of this issue: 13/12/2012		KBS Ref. No.: CDM.11.VAL.178	
Organizational Unit:		Client:	
Climate Change Division, KBS		Husk Power Systems Private Limited	
First POA DD:		Final POA DD:	
Version 01 dated 16/05/2012		Version 1.5 dated 12/12/2012	
First CPA DD:		Final CPA DD:	
Version 01 dated 16/05/2012		Version 1.4 dated 07/12/2012	
Summary of validation:			
Husk Power Systems Private Limited has commissioned KBS to perform the validation of the proposed CDM programme of activities:			
PoA Title:	Sustainable Development Programme of Rural Electrification by Husk Power Systems		
CPA Title:	Sustainable Development Programme of Rural Electrification by Husk Power Systems CPA-001		
Methodology Applied:	AMS I.L version 1.0		
Sectoral Scopes:	01		
Validity of methodology/ies (for RfR):	02/03/2012 onwards		
<p>The scope of the validation is defined as an independent and objective review of the PoA DD & specific CPA DD, the PoA's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the latest version of CDM Validation and Verification Standard, Kyoto Protocol requirements and UNFCCC rules.</p> <p>The report is based on the assessment of the PoA DD & specific CPA DD undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., on site visit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and relevant CDM decisions.</p> <p>The review of the PoA documentation and the subsequent follow-up interviews has provided KBS with sufficient evidence to determine the PoA's fulfilment of all the stated criteria. In our opinion, the PoA meets all applicable UNFCCC requirements for the CDM.</p> <ul style="list-style-type: none"> - <input checked="" type="checkbox"/> Will be recommended to the CDM Executive Board with a request for registration - <input type="checkbox"/> Is not recommended for registration 			
		Validation Status:	<input type="checkbox"/> Findings not closed <input type="checkbox"/> Draft validation report <input checked="" type="checkbox"/> Final validation report
PoA type:	Small scale		
Subject: CDM PoA Validation (VVS Track)			
Validation Team:		Document Distribution	
Team Leader& Local expert: Mayank Kumar Jain Validator and Technical Expert (TA 1.1): Gagandeep Kakkar		<input checked="" type="checkbox"/> No Distribution without permission from the Client	
Technical Review Team:	Manager T&C		
Technical Reviewer: Madhuri Nanda Date: 21/12/2012 Technical Expert: Ashok Kumar Gautam	Name: Ashok Kumar Gautam Date: 24/12/2012	<input type="checkbox"/> Limited Distribution	
Authorized by:			
Name: Kaushal Goyal, Managing Director Date: 24/12/2012		<input type="checkbox"/> Unrestricted Distribution	
Rev Number:	Date:		
0	24/11/2012		
1	13/12/2012		

Abbreviations

ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology for Small-scale
BE	Baseline Emissions
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CM	Combined Margin
CER	Certified Emission Reduction
CL	Clarification request
COP	Conference of Parties
CPA	CDM Programme Activity
CME	Coordinating/Managing Entity
DOE	Designated Operational Entity
DNA	Designated National Authority
DPR	Detailed PoA Report
DR	Document Review
DD	Design Document
EB	Executive Board
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
GSC	Global Stakeholder Consultation
HCA	Host Country Approval
HPS	Husk Power Systems
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation
LE	Leakage Emissions
LoA	Letter of Approval/Authorization
ISO	International Organization for Standardization
MOP	Meeting of Parties
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
OM	Operating Margin
PoA	Programme of Activities
PE	PoA Emissions
PLF	Plant Load Factor
PPA	Power Purchase Agreement
PO	Purchase Order
QA/QC	Quality Assurance/Quality Control
RfR	Request for Registration
SD	Sustainable Development
T&C	Technical & Certification
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation & Verification Standard

Table of Content

1. Validation Opinion	5
2. Introduction.....	6
2.1 Objective.....	6
2.2 Scope.....	6
3. Methodology	7
3.1 Review of CDM-POA DD and Additional Documentation	7
3.2 Site Visit.....	7
3.3 Major Milestones in validation	7
3.4 Use of the Validation Protocol	8
3.5 Findings	8
3.6 Internal Quality Control	8
4. Validation Findings	10
4.1 Approval.....	10
4.2 Participation.....	10
4.3 PoA DD, CPA DD templates/forms	11
4.4 PoA Description	11
4.5 Baseline and monitoring methodology	13
4.6 Additionality of PoA/CPA	19
4.7 Application of Monitoring Methodology and Monitoring Plan	21
4.8 Environmental Impacts	22
4.9 Local Stakeholder Comments	22
4.10 Operational and management arrangements for the PoA.....	23
4.11 Eligibility criteria for CPAs	24
4.12 Validation of CPAs.....	28
5. Global Stakeholder Consultation Process.....	32
5.1 Description of how and when the POA DD was made publicly available.....	32
5.2 Compilation of all comments received.....	32
5.3 Explanation of how comments have been taken into account	32
6. References	33

Annexes:

Annex 1: Validation Protocol (PoA DD)	35
Annex 2: Validation Protocol (CPA DD)	50
Annex 3: Detailed Findings.....	71
Annex 4: Certificate of Competence.....	87



1. Validation Opinion

KBS Certification Services Pvt. Ltd. has been contracted by Husk Power Systems Private Limited to perform a validation of the PoA:

PoA Title: Sustainable Development Programme of Rural Electrification by Husk Power Systems

Host Party (ies): India

The validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism PoA's Validation and Verification standard Version 2.0 and host country criteria, as well as criteria given to provide for consistent PoA operations, monitoring and reporting.

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

The PoA correctly applies methodology AMS 1.L version 1.0. It is demonstrated that the PoA is not a likely baseline scenario. The emission reductions attributable to the PoA are hence additional to any that would occur in the absence of the programme of activities.

The total emission reductions from the Sustainable Development Programme of Rural Electrification by Husk Power Systems CPA-001 (participant of PoA) are estimated to be 2,150 tCO₂e over a 10 year crediting period during 1/02/2013 to 31/01/2023, averaging 215 tCO₂e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

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

Authorized Signatory

Signature:

Name: Kaushal Goyal

Place: Faridabad, Haryana, India

Date: 24/12/2012

2. Introduction

2.1 Objective

Husk Power Systems Private Limited has commissioned KBS to perform the validation of the PoA: Sustainable Development Programme of Rural Electrification by Husk Power Systems with regard to the relevant requirements for Clean Development Mechanism (CDM) PoA activities.

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

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

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

2.2 Scope

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

3. Methodology

3.1 Review of CDM-POA DD and Additional Documentation

The validation is performed primarily as a document review of the publicly available PoA document version 1.0 dated 16/05/2012 and the intermediate versions up to final version 1.5 dated 12/12/2012. The document review of the publicly available CPA document version 1.0 dated 16/05/2012 and the intermediate versions up to final version 1.4 dated 07/12/2012 (final version) was also undertaken during the validation process. The assessment is performed by a validation team using a validation protocol (PoA& CPA) attached as Annex 1& 2 respectively. The cross checks between information provided in the POA/CPA DD and information from sources other than those used, if available, the validation team's sectoral or local expertise and, if necessary, independent background investigations.

3.2 Site Visit

The site visit was undertaken by Mayank Kumar Jain & Gagandeep Kakkar and details are mentioned below;

Location:	Village Majheria, District East Champaran, Bihar, India	
Dates:	10th – 11th July, 2012	
Key points discussed:	Name of person, interviewed	Designation, Organization
<ul style="list-style-type: none"> Policy, measure, goal and implementation of PoA Eligibility Criteria for Inclusion of a CPA in the PoA Role and responsibilities of CME Competence of CME to evaluate the inclusion of a CPA Operation and Management of PoA Technology/measure employed in specific CPA; Baseline identification and Additionality demonstration of the CPA 	Ratnesh Kumar Yadav	Director, HPS
<ul style="list-style-type: none"> Emission reductions calculations. Monitoring plan 	Navleen Kaur Bhaskar Jyotinath	Consultant, EVI Manager, EVI
<ul style="list-style-type: none"> Implementation, Operation and Management of specific CPA; Training of personnel Local laws and regulations in Vietnam applicable to the project activity. Local Stakeholder Consultation Process 	Nayan Prakash	Dy. Director, HPS

3.3 Major Milestones in validation

Validation Contract	10/11/2011
Publication of Design Documents	24/05/2012
On site visit	10/07/2012 to 11/07/2012
Draft Validation Report	24/11/2012
Final Validation Report	13/12/2012

3.4 Use of the Validation Protocol

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

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

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

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

The completed validation protocol for this PoA and CPA are attached as Annex 1 & 2 respectively to this report.

3.5 Findings

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

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

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

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

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

Corrective Action Requests and Clarification Requests are raised in the draft validation protocol and detailed in a separate finding document (Annex 3). In this document, the PoA participant is given the opportunity to "resolve" the outstanding CARs and respond to CLs and FARs.

3.6 Internal Quality Control

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

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



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

4. Validation Findings

4.1 Approval

Discussion:

A CDM Program of Activities shall be approved by the Parties involved. In accordance with Annex 48 to the report of 50th meeting of the CDM-EB, KBS confirms that it has entered into a contractual agreement with Husk Power Systems Private Limited, which is the project participants, for performing the CDM validation of proposed PoA.

The host party of the project activity is India. India has ratified the Kyoto Protocol on 26th August 2002. The Designated National Authority (DNA) is the Ministry of Environment and Forests, Government of India.

The validation team confirms that the project participants are listed in tabular form in section A.4 of the PoA DD and this information is consistent with the contact details provided in Sec. A.3 & Appendix 1 of the PoA DD.

CME	Husk Power Systems Private Limited
Parties Involved	India (host)
PoA Title	Sustainable Development Programme of Rural Electrification by Husk Power Systems
Approval	Yes
LoA Received	Yes
Date of LoA	22/11/2012
Reference of document	4/15/2012-CCC ^{/4/}
LoA received from	CME – Husk Power Systems Private Limited
Validation of authenticity	The validation team does not doubt the authenticity of LoA
Validity of LoA	Valid

Findings:

CAR # 01 was raised in this regard and closed successfully. Please refer Annex 3 of this report.

Opinion:

The validation team confirms following;

- The LoA is received as referenced above;
- The LoA is received from the PP directly;
- The provided LoA is in accordance with paragraphs 39 to 42 of VVS V 2.0
- The provided LoA is unconditional with respect to sections (a) to (d) of paragraph 39 of VVS version 2.0

4.2 Participation

Discussion:

The host country for the PoA is India and has ratified the Kyoto Protocol on 26th August 2002. This has been confirmed from the link (http://unfccc.int/parties_and_observers/parties/items/2352.php).

The project participant listed in the section A.3 & A.4 of the PoA DD is Husk Power Systems Private Limited. The PP Husk Power Systems Private Limited has been approved by the Indian DNA to participate in this PoA. This has been verified through the Host Country Approval letter^{/4/} (Ref. 4/15/2012-CCC) issued by the DNA of India (Ministry of Environment & Forest, Government of India).

- As a mandatory requirement of the UNFCCC CDM EB the project participants need to submit the modalities of communication^{/5/} (MoC) before submitting the request for registration for the proposed CDM project activity. The project participant MoC dated 14/08/2012 was found in line with the information provided in the Annex I of the PoA DD. The validation team confirms that MoC is correctly filled using the latest F-CDM-MOC form Version 2.1. It is directly received from the PP and a written confirmation has also been received confirming the specimen signature, designation and name of the authorised personnel.

Findings:

CAR # 01 was raised in this regard and closed successfully. Please refer Annex 3 of this report.

Opinion:

The participation for each project participant has been approved by a Party of the Kyoto Protocol. The Designated National Authority (DNA) is the National Clean Development Mechanism Authority (NCDMA) established in the Ministry of Environment and Forests (MoEF), Government of India. The validation team concluded this by reviewing the information available on the website of UNFCCC. Same has been cross verified through the Letter of Approval^{/4/} issued by the Designated National Authority.

The assessment team confirms that due diligence has been performed on the MoC statement in accordance with the requirements established in para 53-58 of VVS Version 2

4.3 PoA DD, CPA DD templates/forms

Discussion:

The PoA DD^{/2.1/} applies the Programme design document form for small-scale CDM programmes of activities (F-CDM-SSC-PoA -DD) and Guidelines, version 2.0^{/9/} and Specific CPA DD^{/2.2/} applies Component project activity design document form for small-scale component project activities (F-CDM-SSC-CPA-DD) version 2.0 and Guidelines version 1.0^{/10/} respectively, which are the valid forms available on UNFCCC/CDM website.

Findings:

CAR #07 was raised and closed successfully. Please refer Annex 3 for detail

Opinion:

Based on discussion above the validation team is of opinion that the PoA DD and CPA DD is being prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website and complies with para 187-188 of VVS^{/6/} 2.0

Key revisions between the Web hosted PoA DD against the final version PoA DD	
PoA DD Section no.	Brief description of the changes
Section A.2	Purpose and general description of the PoA was not in line with applicability conditions of methodology
Section A.2	Electricity generation form solar PV is included along with Biomass Gasifier
Section A.4	Name of Annex 1 party removed from table
Section A.6	Type of fuel to be used is clearly defined
Section B.2	Eligibility criteria made in line with EB 65 annex 3
Section C	Competency Criteria included for PoA And CPA Manager
Part II	3 Generic CPAs are added as Part II of the PoA DD Generic CPA, Biomass gasification generation unit(s) Generic CPA, Solar photovoltaic (SPV) technology unit(s) Generic CPA, Hybrid systems of solar PV and biomass based gasification unit(s)

Key revisions between the Web hosted CPA DD against the final version CPA DD	
CPA DD Section no.	Brief description of the changes
Section A.3	No of installations reduced from 30 to 1
Section A.5	Detailed Technical description provided
Section A.6	Name of Annex 1 party removed from table
Section A.10	No of CERs reduced from 46,550tCO ₂ e to 2,150 tCO ₂ e due to reduction in no. of Installations
Section D.3	Flow diagram indicating the monitoring parameter included
Section D.5	Eligibility criteria made in line with EB 65 annex 3

4.4 PoA and CPA Description

Discussion on PoA:

The proposed PoA by Husk Power Systems (hereafter referred as HPS), aims to provide electricity to facilities and energy consumers that do not have access to any electricity distribution system/network such as a national grid, regional grid before project implementation, by producing power from renewable sources. The renewable technologies to be utilized in the proposed PoA are as follows:

1. Biomass based Gasification System
2. Solar photovoltaic (SPV) technology
 - a. Solar PV based AC grid system
 - b. Solar PV based DC grid system
3. Hybrid systems of solar PV and biomass based gasification
 - a. Biomass and Solar PV based AC grid hybrid system
 - b. Biomass and Solar PV based DC grid hybrid system

The amount of power being generated in the PoA will replace the usage of kerosene/diesel (fossil fuel) consumption by the rural households/communities in India.

A typical SSC-CPA under the PoA will consist of a number of units adding up to the maximum installed capacity of 1 MW. Each unit of capacity 5-250 kW will be generating electricity using biomass based Gasifier, solar photovoltaic technology and a hybrid technology (i.e. of solar & biomass gasification combined) providing electricity to facilities and energy consumers that do not have access to any electricity distribution system. The types of biomass to be used in the Gasifier will be specified at CPA level and a biomass surplus availability will be demonstrated as per EB 47 Annex 28.

Discussion on CPA :

The Specific CPA "Sustainable Development Programme of Rural Electrification by Husk Power Systems CPA-001" consist of installation of a Biomass based Gasification System. There is only generation unit of capacity 32 KW included in this CPA and will be installed as per BOOM^{/1.2/} model.

The geographical location is identified (confirmed from <http://itouchmap.com/latlong.html>) as under

Geographical Co-ordinates	
Latitude	Longitude
N26°36'35.33"	E84°51'24.45"

The table below shows the technical features of the CPA and a typical generation unit.

Parameter	Details
Total capacity under CPA-001	32 kW
Capacity of each Unit	32 kW ^{/25/}
Technology	Gas based generators ^{/25/} Typical specifications - [3 Phase-400 V – 50 Hz-1500 RPM]
Operational Lifetime of the CPA	20 years ^{/20/& /21/}
Plant Load factor for the Gasifier	Average 80% ^{/24/}
Fuel type	Biomass - rice husk, wheat husk, corn cobs.

Findings:

CAR # 03, CL # 04 & CL # 12 were raised and closed successfully. Refer Annex 3 for detail.

Opinion:

The process undertaken to validate the accuracy and completeness of project description was carried out by means of the desk review of webhosted PoA DD^{/1.1/}, CPA DD^{/1.2/}, interviews of the personnel involved in implementation of the PoA and associated CPA. The validation team considers that the project description in PoA DD is accurate and complete. The validation team carried out the physical site inspection of the

associated CPA on 10th & 11th July 2012 and also reviewed the supporting documents related to the PoA DD and CPA DD during validation site visit and desk review.

4.5 Baseline and monitoring methodology

4.5.1 General requirement

Discussion:

The validation team confirms that selected baseline and monitoring methodology is approved methodology and PP has correctly applied it, AMS 1.L, version 01^{/7/}, titled “Electrification of rural communities using renewable energy”. In addition to that latest version of following guidelines is also used:

- Guidelines for demonstrating additionality of micro scale project activities,^{/8/} version 04 EB 68, Annex 26.
- Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities^{/12/}, version 01, EB 65 annex 3.

Findings:

CAR # 02 (5) was raised and closed successfully. Refer Annex 3 for detail.

Opinion:

The validation team confirms that

(a) Baseline and monitoring methodology AMS 1.L, version 01 selected by the PoA implementer is a valid version approved by the Board.

(b) version of micro scale^{/8/}, small scale additionality guidelines^{/11/} and Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities^{/12/} are applied.

4.5.2 Applicability of selected methodology to the programme of activities

Discussion:

The steps taken to assess the relevant information contained in the POA DD against each applicability condition are described below. The CME has applied the Approved Methodology AMS 1.L Version 01 for the proposed PoA. The validation team assessed each of the applicability condition of the methodology as discussed below:

Applicability	Justification for PoA	Justification for specific CPA
This methodology is applicable to electrification of a community achieved through the installation of new, renewable electricity generation systemse.g. solar photovoltaic systems) that displace fossil fuel use, such as in fuel-based lighting systems and stand-alone power generators.	The PoA involves generation and distribution of electricity through the installation of small capacity Biomass based gasifiers and/or solar PV panels replacing the usage of Kerosene/diesel in the rural communities/ households of India. Thus, the PoA is applicable under this criterion.	From eligibility criteria of CPA inclusion and interview during site visit it has been confirmed that CPA-001 will install a new Biomass gasifierfor electrification of rural communities/ households
The applicability of this methodology is limited to facilities and energy consumers that do not have access to any electricity distribution system/ network such as a national grid, regional grid before project implementation. Such electricity) end-use facilities	The PoA shall provide power to the households/communities that do not have accessto any electricity distribution system/ network such as a national grid, regional grid before project implementation The end users are planned to be limited to only	It has been confirmed during site visit that the identified locations (village Majheria, Dist East Chamaparan, Bihar) do not have access to an electricity distribution system/ network such as a national grid, regional grid. Since the specific information for

may include households; public buildings; and/or small, medium and micro enterprises (SMMEs). Electricity uses may include interior lighting, street lighting, refrigeration, or agricultural water pumps. At least 75% of the end use facilities connected to the project renewable electricity generation system(s) must be households.	households/communities which will use this electricity from the PoA for applications such as lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps, mobile recharging etc. Thus, the PoA is applicable under this criterion.	identified village is not available in public domain, an information ^{/14/} on Bihar state is checked and It is confirmed that only 6% of the rural household are electrified in the state. It is also confirmed from the Installation preliminary review ^{/11/} done by CPA implementer that at least 75% of end use facilities will be household and electricity will be used for lighting and Mobile Phone Charging.
The applicability of this methodology is limited to end-use facilities that, if they utilize electricity for lighting in the project activity, only utilize high efficient lighting equipment such as Compact Fluorescent Lamps (CFLs), Light Emitting Diode (LED) lamps, and/or fluorescent lamps.	Under the PoA, the households shall use Compact Fluorescent Lamps (CFLs), Light Emitting Diode (LED) and/or fluorescent lamps which they utilize for the lighting purpose. Thus, the PoA is applicable under this criterion.	Since the specific CPA is not yet implemented a declaration ^{/26/} has been given by CME that household will use Compact Fluorescent Lamps (CFLs), Light Emitting Diode (LED) and/or fluorescent lamps. Further each household will sign an undertaking ^{/33/} at the time of connection allotment that it will use CFL only and will be liable to Penalty if not do so.
Project equipment shall comply with applicable international standards or comparable national, regional or local standards/guidelines and the Project Design Document (PDD) shall indicate the standard(s) applied.	The gasification equipments for the Biomass generation units shall be installed as per the guidelines ^{/27/} set by the Ministry of New and Renewable Energy, Govt. Of India dated 1/12/2009. (Page 1 &7) The solar PV panels installed under PoA will be as per the Annexure 3 of MNRE guideline ^{/28/} dated 8/07/2010.	The specific CPA-001 includes installation of one Biomass based Gasifier ^{/24/} with power generating engines ^{/25/} of capacity 32 KW. The Gasifier will generate producer gas which will be burnt in the gas engine to generate electricity. This is confirmed from the technical specification of Biomass Gasifier and Gas Engine. Thus it is in line with the MNRE guidelines
The methodology is applicable to renewable electricity generation systems intended for permanent installation and is not applicable to portable systems, such as portable electricity generating systems or LED lanterns.	The proposed PoA involves the generation of renewable power through the permanent installation of biomass Gasifier/ solar panels. Thus the proposed PoA does not involve any portable electricity generating systems or LED lanterns.	The specific CPA-001 includes installation of permanent Biomass Gasifier. It has been confirmed by means of interview during site visit and Land lease document ^{/18/} for the specific CPA.
The aggregate installed capacity of the renewable energy generating systems shall not exceed 15 MW.	Each CPA under the proposed PoA will have aggregated installed capacity less than 1 MW thus this criterion is applicable to the	The specific CPA -001 includes installation of only one unit of 32 KW. It has been confirmed from the Purchase order ^{/17/} and

	proposed PoA.	technical Specification of Biomass Gasifier ^{/24/} and Generator ^{/25/} .
--	---------------	---

Findings:

CAR # 08 and CAR # 13 was raised and closed successfully. Please refer Annex 3 for detail.

Opinion:

Based on the above-specified assessment, the validation team confirms that applied methodology AMS1.L version 01 is applicable to the PoA and CPAs to be included under the PoA. It is further confirmed by the validation team that eligibility criteria defined by the CME for the inclusion of the CPAs under the PoA sufficiently covers the applicability of the methodology AMS1.L version 01.

4.5.3 PoA and CPA boundary

Discussion:

The political boundary of India is chosen as the country/ geographical boundary of the SSC-PoA. The CPAs that will be included under the PoA will be within the defined geographical location of the PoA area and follow applicable national and / or sectoral policies and regulations. Project boundary as per AMS1.L^{/7/} is defined as *"The spatial extent of the project boundary includes the project renewable electricity generation systems, any project distribution (grid) systems, and the physical sites of the end-use facilities served by the project activity"*.

So in line with the AMS 1.L for specific CPA PP has identified the project boundary as the renewable electricity generation system i.e. Biomass Gasifier, power distribution system and end user i.e. households/communities.

Opinion:

PP has obtained a letter of approval for PoA^{/4/} from Indian DNA and it is therefore eligible to include CPA within the geographical boundary of India (Host Country). During site visit it has also been confirmed that the identified boundary and selected sources and gases are justified for the project activity. The validation of the project activity did not reveal other greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed project activity which are expected to contribute more than 1% of the overall expected average annual emission reduction, which are not addressed by AMS I. L, version 1.0.

4.5.4 Baseline identification

Discussion:

This methodology is applicable to electrification of a community achieved through the installation of new, renewable electricity generation systems (e.g. solar photovoltaic systems) that displace fossil fuel use, such as in fuel-based lighting systems and stand-alone power generator. So in line with applicability the baseline scenario is the fossil fuel (kerosene/diesel) consumption by the rural households.

There is a fixed baseline scenario and two parameters are required to be known to determine the baseline emission as per the methodology AMS 1.L version 1.0

- The amount of renewable electricity consumed by the facilities served by the project renewable electricity generation systems;
- The number of facilities (e.g. households, SMMEs, public buildings) supplied with renewable electricity by the project activity.

And following are the baseline emission factors for each tranche of annual amount of renewable electricity consumed per end-use facility during the crediting period.

- For the first 55 kWh of renewable electricity consumed by each facility the baseline emission factor is 6.8 (tCO₂/MWh);
- For the facility consumption greater than 55 kWh but equal to or less than 250 kWh, the baseline emission factor is 1.3 (tCO₂/MWh) for the tranche between 55 and 250 kWh;
- For the facility consumption beyond 250 kWh, the baseline emission factor is 1.0 (tCO₂/MWh) for the tranche beyond 250 kWh.

Opinion:

The validation team confirms that

- (a) All the assumptions and data used by the project participants are listed in the CPA DD, including their references and sources.
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the CPA DD.
- (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 CPA DD;
- (e) The approved baseline methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

4.5.5 Algorithms and/or formulae used to determine emission reductions

Discussion:

The assessment team confirms that steps taken and the equations and parameters applied in the PoA DD to calculate baseline emissions, Project emission, leakage and emission reductions comply with the requirements of the applied baseline methodology AMS I.L version 1.0 and applicable tools to determine baseline and project emissions.

As per the methodology, the emission reductions are arrived at by using the formulae mentioned below:

Baseline emissions

$$BE_y = BE_{55,y} + BE_{250,y} + BE_{250 plus,y}$$

Where:

BE_y	Baseline emissions in year y (tCO ₂)
$BE_{55,y}$	Aggregate baseline emissions for facilities that consumed equal to or less than 55 kWh of renewable electricity from project renewable electricity systems in year y (tCO ₂)
$BE_{250,y}$	Aggregate baseline emissions for facilities that consumed more than 55 kWh but equal to or less than 250 kWh of renewable electricity from project renewable electricity systems in year y (tCO ₂)
$BE_{250 plus,y}$	Aggregate baseline emissions for facilities that consumed greater than 250 kWh of renewable electricity from project renewable electricity systems in year y (tCO ₂)

1. For facilities that consumed equal to or less than 55 kWh, baseline emissions are calculated as:

$$BE_{55,y} = \sum_x^N EG_{x,y} \times EF_{CO2,55}$$

Where:

$EG_{x,y}$	Electricity delivered by project renewable electricity generation system to facility x , where the electricity delivered to that facility is equal to or less than 55 KWh in year y (MWh)
$EF_{CO2,55}$	6.8 (tCO ₂ /MWh)
X	Facility supplied with renewable electricity from operating project renewable electricity generation systems consuming equal to or less than 55 kWh in year y
N	Number of facilities in the project activity consuming equal to or less than

55 kWh/year

2. For facilities that consumed more than 55 kWh but equal to or less than 250 kWh, baseline emissions are calculated as:

$$BE_{250,y} = \sum_z^M ((EG_{z,y} - 0.055) \times EF_{CO_2,250} + C)$$

Where:

$EG_{z,y}$ Electricity delivered by project renewable electricity generation system to facility z in year y , where the electricity delivered to the facility is more than 55 kWh but equal to or less than 250 kWh in year y (MWh)

$EF_{CO_2,250}$ 1.3 (tCO₂/MWh)

Z Facility supplied with renewable electricity from operating project renewable electricity generation systems consuming more than 55 kWh but equal to or less than 250 kWh in year y

C 0.374 (tCO₂), a constant calculated as (0.055 MWh x 6.8 tCO₂/MWh)

M Number of facilities in the project activity consuming more than 55 kWh but equal to or less than 250 kWh/year

3. For facilities that consumed more than 250 kWh baseline emissions are calculated as:

$$BE_{250plus,y} = \sum_w^P ((EG_{w,y} - 0.250) \times EF_{CO_2,250plus} + D)$$

Where:

$EG_{w,y}$ Electricity delivered by project renewable electricity generation system to facility w in year y such that the electricity delivered to the facility is more than 250 kWh in year y (MWh)

$EF_{CO_2,250plus}$ 1.0 (tCO₂/MWh)

W Facility supplied with renewable electricity from operating project renewable electricity generation systems consuming more than 250 kWh in year y

D 0.6275 (tCO₂), a constant calculated as (0.055 MWh x 6.8 tCO₂/MWh + 0.195 MWh x 1.3 tCO₂/MWh)

P Number of facilities in the project activity consuming more than 250 kWh/year

For the purpose of emission reduction estimation^{/3.2/} for the Specific CPA-001, the following considerations have been made:

- 500 facilities per unit
- 01 units in the CPA
- 6 hours of average daily power consumption (and supply)
- 45 W average connected load at each facility

The PP based on its experience has considered the above mentioned configuration under CPA-001. The PP will utilise a generator of 32 kW. Same has been confirmed from the purchase order. Since the specific CPA-001 was not implemented, during the site visit, to confirm the feasibility of design of PoA/CPA, the assessment team visited a similar unit located in a different village, which is not a part of proposed PoA and CPA-001. It was observed that a typical Bio Gasifier and generator of 32 KW capacity is connected to 400

to 500 household with a connected load ranging from 45 to 150 W. Hence the Validation team considers that the assumptions are appropriate and give a conservative estimation of ex-ante value of emission reduction.

Under these assumptions, per facility annual consumption comes to around 98.5 kWh^{/3.2/} (thus falling in the range of 55 kWh to 250 kWh).

$$\begin{aligned}
 BE_{250,y} &= \sum_z^M ((EG_{z,y} - 0.055) \times EF_{CO2,250} + C) \\
 &= \sum_z^{500} ((98.55/1000 - 0.055) \times 1.3 + 0.374) \\
 &= 215tCO_2
 \end{aligned}$$

Project emissions

As per methodology AMS I.L “Project emissions are considered zero (i.e. $PE_y = 0$) except in the cases below where method indicated in the most recent version of ACM0002 .Consolidated baseline methodology for grid connected electricity generation from renewable sources. is applied to calculate project emissions.

(a) Emissions related to the operation of geothermal power plants (e.g. non condensable gases, electricity/fossil fuel consumption);

(b) Emissions from water reservoirs of hydro power plants”

Since the proposed PoA involves installation of Biomass Gasifier and/ or Solar PV systems;project emissions are considered zero (i.e. $PE_y = 0$)

The specific CPA -001 includes installation of Biomass based Gasifier with power generating engines hence project emission are considered zero. (i.e. $PE_y = 0$)

Leakage

As per the methodology, leakage is to be considered only when any energy generating equipment to be used in the CPA is transferred from any other activity. Since the Specific CPA-001 is using new equipment and no equipment transfer is involved leakage emission are considered zero.

The Methodology also referred to Attachment C to appendix B^{/13/} for Biomass project activities. As per the guidelines, for small-scale energy CDM project activities involving renewable biomass, there are three types of emission sources that are potentially significant (>10% of emission reductions) and attributable to the project activities.

A justification against each emission source has been provided below for specific CPA-001 included in the PoA.

Emission Source	Justification
Shift of pre - project activities	Not applicable since the project activity only uses surplus biomass residues
Emissions from biomass generation / cultivation	Not applicable since the project activity only uses surplus biomass residues
Competing use of biomass	It is confirmed from the Biomass assessment survey report ^{/32/} (page 63, 64 & 66) that there is surplus biomass available in the region that goes unutilized. As per the report, biomass is available in surplus within 50 km radius from the project site which is 100% larger than the quantity of biomass that is utilized including the CPA. Hence leakage emissions on account of competing use of this biomass

residue has not been considered.

Leakage emission $LE_y = 0$

Emission reductions

Emission reductions on annual basis (ER_y) are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \quad (1)$$

Where:

ER_y	Emission reductions in year y (tCO ₂ /y)
BE_y	Baseline emissions in year y (tCO ₂ /y)
PE_y	Project emissions in year y (tCO ₂ /y)
LE_y	Leakage emissions in year y (tCO ₂ /y)

For Specific CPA^{/3.2/}:

$$ER_y = BE_y - PE_y - LE_y = 215 tCO_2$$

Findings:

CL # 10 was raised and closed successfully. Please refer Annex 3 for detail.

Opinion:

The validation team confirms that:

- All assumptions and data used by the project participants are listed in the PoA DD, including their references and sources.
- All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PoA DD.
- All values used in the PoA DD and Specific CPA DD are considered reasonable in the context of the proposed CDM project activity.
- The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, and leakage and emission reductions.
- All estimates of the baseline emissions can be replicated using the data and parameter values provided in the Specific CPA DD and corresponding spreadsheets.

4.6 Additionality of PoA/CPA

As per paragraph 195 of VVS^{/6/} version 2.0 the additionality of the PoA as a whole should be demonstrated using the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" Version 3 EB 65 Annex 3. The PoA consists of micro scale CPAs, with the individual capacity ranging from 5-250 kW making the each CPA less than 1 MW (Capped). Hence, Guidelines for demonstrating additionality of micro scale project activities version 04 EB 68, Annex 26 has been followed. As per guidelines Project activities up to five megawatts that employ renewable energy technology are additional if any one of the conditions under paragraph 2 of the guidelines is satisfied.

Therefore the additionality of CPAs under the proposed PoA is demonstrated using point (c) of paragraph 2. This is discussed in detail in section 4.6.2.

4.6.1 Start date of PoA and CPA

Discussion:

In accordance with the Para 3 of Annex 26 of EB 60, "Guidelines for the demonstration and assessment of prior consideration of the CDM" is not applicable to the PoA considering the fact that no component of the programme will commence prior to the start date of validation. However, the CME has ensured through the eligibility criteria of the inclusion of the CPAs under the proposed PoA that no project activity shall be included as a CPA in the proposed PoA having start date prior to the date of publication of the PoA for global stakeholder comments i.e. 24/05/2012^{/15/}. Thus, in light of the above-specified clarification from the CDM Executive Board and the eligibility condition included by the CME, no further analysis on prior consideration is required under "Guidelines for the demonstration and assessment of prior consideration of the CDM".

Start date of specific CPA included in the PoA is 10/07/2012 i.e. date of issue of purchase order for gas generator. Same has been confirmed from purchase order^{/16/} issued to M/s. Prakash Diesels Pvt. Ltd. for the generator set. To validate the date of first real action taken purchase order^{/17/} of Biomass Gasifier dated 20/07/2012 and Land lease document^{/18/} dated 16/07/2012 have also been checked and start date considered is found to be ok.

Findings:

CL # 11 (1) was raised and closed successfully. Please refer Annex 3 for detail.

Opinion:

Based on the above assessment the validation team confirms that the start date of specific CPA is not prior to the commencement of the validation of the PoA, which is the date the CDM-PoA-DD is first published for global stakeholder consultation.

4.6.2 Additionality of CPA

Discussion:

The additionality of the specific CPA under this PoA is demonstrated using the Guidelines for demonstrating additionality of micro scale project activities version 04 EB 68, Annex 26. As per the Guidelines Project activities up to five megawatts that employ renewable energy technology are additional if any one of the conditions below is satisfied:

- (a) *The geographic location of the project activity is in one of the least developed countries or the small island developing states (LDCs/SIDs) or in a special underdeveloped zone of the host country identified by the government before 28 May 2010;*
- (b) *The project activity is an off grid activity supplying energy to households/communities (less than 12 hrs grid availability per 24 hrs is also considered as 'off grid' for this assessment);*
- (c) *The project activity is designed for distributed energy generation (not connected to a national or regional grid)¹ with both conditions (i) and (ii) satisfied (see below);*
 - (i) *Each of the independent subsystem/measure in the project activity is smaller than or equal to 1500 kW electrical installed capacity;*
 - (ii) *End users of the subsystem or measure are households/communities/small & medium enterprises (SMEs)².*

- (d) *The project activity employs specific renewable energy technologies/measures recommended by the host country designated national authority (DNA) and approved by the Board to be additional in the host country.*

PP has demonstrated the additionality using point (c) above and steps taken to assess the requirement are described below:

1. The project activity at identified location i.e. village Majheria, Dist East Champaran, Bihar, India under CPA-001 is generation of electricity using Biomass Gasifier and biomass (rice husk, wheat husk & corn cobs) as fuel. It is designed as local distribution network and is not connected to grid. It has also been cross checked from another publically available source^{/14/} that the identified village is not electrified.
2. The capacity of biomass Gasifier and the CPA-001 as a whole is 32 KW as there is only one location included in the specific CPA. The capacity of unit is confirmed from the Purchase order^{/16/} dated 10/07/2012 issued to M/s Prakash Diesels Pvt. Ltd. for the generator set and Purchase order^{/17/} dated 20/07/2012 issued to M/s Ganesh engineering works and technical specifications for Gasifier.
3. The end users of electricity will be rural household/ communities. Same has been confirmed during site visit and by interviewing local stake holders. The identified location is a remote location and commercial activities are negligible. The electricity will be available to villagers only in the evening hours for lighting and mobile charging etc.

Opinion:

Based on the site visit observations and document review validation team confirms that project activity complies with the requirement of paragraph 2(c) of Guidelines for demonstrating additionality of micro scale project activities and hence it is additional.

4.7 Application of Monitoring Methodology and Monitoring Plan

Discussion:

The CME, with the assistance of the PoA Manager, will manage the monitoring activities carried out by each CPA to ensure that each CPA meets the requirements for CDM equipment calibration, operation and maintenance as well as data collection, processing and reporting. The Monitoring Plan shall be in accordance with relevant methodologies under the CDM. The Monitoring Plan is an integral part of this PoA and will be used to facilitate reliable, accurate and consistent monitoring of the project's Emission Reductions (ERs) towards the periodic verification process required in order to confirm the amount of Certified Emission Reductions achieved.

The CME, with the assistance of the PoA Manager, will ensure that each individual CPA is verified based on each unique identification number as a reference to ensure single counting of the CERs. The CPA with the reference will be linked with geographic coordinates marked by GPS coordinates based on each specific fixed site location.

The emission reduction calculations are documented in accordance with AMS I. L (version 01) and will be calculated ex-post for each CPA considering the following parameters:

- **N**, Number of facilities (connected to the generation units in the CPA) consuming less than or equal to 55 kWh/ Year. Monthly unit wise statements shall be prepared by the CPA implementer. The same shall be used to arrive at the number of facilities consuming less than 55 kWh. The records shall be updated on a monthly basis.
- **M**, Number of facilities (connected to the generation units in the CPA) consuming more than 55 kWh and less than or equal to 250 kWh/ Year. unit wise statements shall be prepared by the CPA implementer. The same shall be used to arrive at the number of facilities consuming between 55 to 250 kWh. The records shall be updated on a monthly basis.
- **P**, Number of facilities (connected to the generation units in the CPA) consuming more than 250 kWh/ Year. Monthly unit wise statements shall be prepared by the CPA implementer. The same shall be

used to arrive at the number of facilities consuming more than 250 kWh. The records shall be updated on a monthly basis

- **EG_{x,y}**, Net amount of renewable electricity delivered to all the end-use facilities connected to the project renewable electricity generation systems in year y (annual consumption Equal to or less than 55 kWh). As per the methodology AMS I.L ver 01, para 17 option 1, energy meters will be installed at each facility to monitor the net amount of renewable energy delivered. The parameter will be continuously monitored and recorded monthly. The meter at the consumer end in the proposed CPA will be calibrated on an annual basis.
- **EG_{z,y}**, Net amount of renewable electricity delivered to all the end-use facilities connected to the project renewable electricity generation systems in year y (annual consumption more than 55 kWh and less than or equal to 250 kWh). As per the methodology AMS I.L ver 01, para 17 option 1, energy meters will be installed at each facility to monitor the net amount of renewable energy delivered. The parameter will be continuously monitored and recorded monthly. The meter at the consumer end in the proposed CPA will be calibrated on an annual basis.
- **EG_{w,y}**, Net amount of renewable electricity delivered to all the end-use facilities connected to the project renewable electricity generation systems in year y (annual consumption more than 250 kWh). As per the methodology AMS I.L ver 01, para 17 option 1, energy meters will be installed at each facility to monitor the net amount of renewable energy delivered. The parameter will be continuously monitored and recorded monthly. The meter at the consumer end in the proposed CPA will be calibrated on an annual basis.

Opinion:

All the monitoring parameters have been mentioned in section D.7.1 of CPA-DD. The validation team has verified the values used against the sources and conclude that all relevant parameters to calculate the GHG emissions reductions of the project have been sufficiently considered. The monitoring plan is included in Section D.7.2 of the CPA-DD based on the approved monitoring methodology, AMS I. L version 1.0^{7/} and is correctly applied to the project activity. The monitoring plan has been found to be in compliance with the requirements of the applied methodology.

The assessment team considers that monitoring arrangements described in the monitoring plan and feasible within the project design and the PP is capable to implement the monitoring plan. Hence, the requirement of paragraph 198 of VVS version 2.0 is complied.

4.8 Environmental Impacts

Discussion:

As per the Ministry of Environment and Forests (Government of India) notification^{29/} dated 01/12/2009 (S.O 3067), a list of activities that require undertaking environmental impact assessment studies has been provided. As per the notification "*Power plants upto 15 MW, based on biomass and using auxiliary fuel such as coal/lignite/petroleum products upto 15% are exempted*". Since the PoA involves installation of micro scale units to generate power there is no requirement of EIA to be conducted as per the EIA notification.

Findings:

CL # 05 (3) was raised and closed successfully. Please refer Annex 3 for detail.

Opinion:

Validation team confirms that there is no requirement of EIA as per host country laws and the implementation of the current project activity will not lead to any adverse environmental impacts or any trans-boundary environmental impact as there are no emissions from the project activity.

4.9 Local Stakeholder Comments

Discussion:

In accordance with the PoA Guidelines EB 55 Annex 38 approved by the CDM Executive Board, the CME in the PoA DD specify whether the local stakeholder consultation to be carried out at the PoA level as a whole activity or at the individual CPA level. The CME has selected to carry out the local stakeholder meet at the individual CPA level. In the opinion of the validation team this option has been appropriately considered by the CME as the PoA boundary is the entire host country of India and it is not promising to carry out the local

stakeholder meet at the PoA level considering the fact that associated CPAs may come up in any region of the host country. It has also been specified under the PoA DD that details of the local stakeholder consultation process to be provided under the respective CPAs.

For the specific CPA a Local Stakeholders meeting^{/23/} was carried out by the project proponent on 24/11/2011 at Community Centre, Gopalganj and Kishan Hotel, Supriya cinema road Bettiah on 25/11/2011 at Husk Power Plant, Runnisaidpur and on 23/11/2011 at Ramdeo Prasad Mahila Mahavidyalaya, Haspura, Aurangabad. The validation team noted that all the relevant stakeholders identified are in line with the definition of stakeholders as per latest version of CDM Glossary of terms Version 6.0. The PP has utilized appropriate media to invite these stakeholders; published public notices in leading news papers^{/30/}.

A summary of the comments received and a note on how due account was taken of the concerns raised in the public consultation are included in section C.2 of the CPA DD. This also states that appropriate immediate responses were provided to them.

During the on site visit, representatives from the local community were interviewed. In general, the interviewees showed adequate understanding of the nature of the project and felt that there would be no adverse impacts on the environment arising from the project activity. The interviewees also considered that the local economy would be benefitted from the project activity.

Findings:

CL # 11(5) was raised and closed successfully. Please refer annex 3 for detail.

Opinion:

The validation team has verified the related documents^{/23/8/30/} and interviewed some of the attendees of the stakeholder meeting during onsite visit and concludes that the project participant has explained about the project activity on 24/11/2011, in an unbiased manner and project has not received any adverse or significant comments.

4.10 Operational and management arrangements for the PoA

Discussion:

The PoA is a voluntary initiative of the Husk Power Systems Private Limited, acting as the coordinating and managing entity and as the focal point for all CDM related activities. To participate in the programme, the proposed CPA must meet the eligibility criteria's defined in PoA DD. Roles and responsibilities of the CME, PoA manager and CPA manager, CPA inclusion team are clearly defined in the PoA DD and are confirmed in tables below.

Designation	Responsibilities
CME	<ul style="list-style-type: none"> Operation, management and monitoring of all CPA's under PoA Inclusion of CPA
PoA Manager	<ul style="list-style-type: none"> Technical Assessment and review CPA DD preparation DOE engagement Submission of CPA DD to DOE Training and Capacity development
CPA Manager	<ul style="list-style-type: none"> Identifying the CPAs- No of installation covered and geographical boundary. Provision of all the documents to PoA manager.
Cluster Manager	<ul style="list-style-type: none"> Compiles the daily data received through the smart monitoring system and send it to the CPA manager Visit the generation unit on regular basis for maintenance check up and follow up.
Field Operator	<ul style="list-style-type: none"> Daily operation and maintenance of generation unit. Manual data recording

A typical CPA may be implemented under any of the three models by CME.

- Build Own Operate Maintain (BOOM)

- b. Build Own maintain (BOM)
- c. Build maintain (BM)

The responsibility for implementation, operation and maintenance under each model is described clearly in section A.2 of PoA DD

A Smart Monitoring System will be used for data recording. It will be capable of monitoring the data on a continuous basis. The system will be linked to the meters installed at the generation units. The daily data will be received by the CPA manager and it will be compiled on a monthly basis as per the Monthly compiled sheet^{/31/}. Operator present at the generation unit with the help of the cluster manager shall be involved in completing the data requirement of the smart monitoring system & the manual recording. Once, the data is sent to the central server by the smart monitoring system, data compilation will take place.

The database will be updated by the CME based on monthly reports provided by the CPA operators. Data will be checked for completeness and quality and electronic records will be kept for at least 2 years after the end of the crediting period.

Competency of the team involved in inclusion of CPA in the PoA has been checked against the document CDM Management Manual^{/31/} for the PoA. The following table summarizes the competencies of members responsible for CPA inclusion.

Designation	Responsibility
PoA manager	<ul style="list-style-type: none"> Should have the clear understanding of the CDM modalities and protocol. Should have clear understanding of the eligibility criteria of the PoA. Should be able to understand and check all the project related documents of the CPA like land documents, licenses, approvals etc.
CPA Manager	<ul style="list-style-type: none"> Should have the complete understanding of the technology used in the CPA Should have the clear understanding of the monitoring requirement and record keeping of the PoA. Should have the training procedures as provided by HPS.

Findings:

CL # 05 was raised and closed successfully. Please refer Annex 3 where it is discussed in detail.

Opinion:

The validation team confirms that Husk Power Systems Private Limited will coordinate the Programme of Activities (PoA) and will support the project operators in implementing the Component Project Activities (CPAs) in India

The CME has developed teams for the operation, management and verification of the PoA as detailed in the PoA DD. The CME has clearly defined roles and responsibilities of the personnel involved in the complete process. It has further divided the personnel involved into teams for operation and maintenance of the PoA. The validation team has assessed the process and competencies of the team members in each of the teams while carrying out interviews during the course of validation and considers the same to be adequate and in line with the requirements of paragraph 17, Annex 3, EB 65.

4.11 Eligibility criteria for CPAs

Discussion:

The CME has developed the eligibility criteria's for inclusion of a CPA under the PoA in accordance with EB 65 Annex 3. In accordance with paragraph 15 and 16 of EB 65 Annex 3, the objectivity and comprehensiveness of all eligibility criterions is validated and discussed in the following table:

S.No.	Eligibility criteria as per EB 65 Annex 3 Paragraph 14	The eligibility criteria defined by CME	Means of validation at the time of CPA inclusion
(a)	The geographical boundary of the CPA including any time-	All the installations in the CPA shall be located within the geographical boundary of India	The details of the SSC-CPA shall be cross-checked with one or more of the following documents by the

	induced boundary consistent with the geographical boundary set in the PoA;	(i.e. host country).	CME at the time of inclusion to the PoA: <ul style="list-style-type: none"> Land documents Geo-co-ordinates of the project site using GPS device Any statutory Approvals/clearance received for the installations in the SSC-CPA having the mention of the project location
(b)	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	In order to avoid the double accounting, the CME shall assign a unique identification number to the SSC-CPA(s).	Each unit to be installed in each CPA will be given <ul style="list-style-type: none"> Title of the programme CPA no. Location details Geographical co-ordinates Type of technology used.
(c)	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	The technology/measure allowed under the PoA are either biomass based gasification and/or solar photovoltaic based generation systems.	Each of the generation unit installed under any specific CPA shall comply to the MNRE guidelines: <ul style="list-style-type: none"> For biomass gasification unit-Notification^{/27/} dated 01/12/2009.(page 1 & 7) For solar PV panels installed –Annexure 3 of Notification^{/28/} dated 8/07/2010
(d)	Conditions to check the start date of the CPA through documentary evidence;	The commencement of validation of the PoA. i.e. the date on which the PoA-DD was published for global stakeholder consultation was on 24/05/2012. Verification of the start date of the SSC-CPA, which shall be after 24/05/2012 and earlier than the end date of the PoA (28 years from the date of registration).	This will be checked from the date of the placement of the first work order with respect to the installation of any generation unit in the CPA
(e)	Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs;	Each CPA shall satisfy the applicability criteria described in the approved methodology AMS-I.L version 01, Electrification of rural communities using renewable energy.	This is described in section 4.5.2 of this report.
(f)	The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of	Each CPA shall demonstrate the additionality as per the requirements of “Guidelines for demonstrating additionality of microscale project activities EB	This is discussed in section 4.6 of this report

	additionality as specified in Section A above;	68, Annex 26, ver 04" .	
(g)	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;	<p>The local stakeholder consultation meeting shall be conducted for each CPA as per the CDM requirements at the time of inclusion. The CME shall verify all the documents related to stakeholder consultation meeting and the solicitation of the comments received from the stakeholder meetings will be described in section C of the specific CPA DD.</p> <p>The EIA requirement for each CPA shall be checked as per the prevailing host party laws, (the Schedule 1 of Ministry of Environment and Forests (Government of India).</p>	<p>This will be verified from the documents related to stakeholder consultation meeting and the solicitation of the comments received from the stakeholder meetings.</p> <p>EIA requirement will be checked against the prevailing host party laws.</p>
(h)	Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance;	The CME before the inclusion of the SSC-CPA under the PoA shall check the funding pattern adopted to implement the project activity. Further the CME shall provide an undertaking that there shall be no funding from Annex-I parties, if any, does not result in a diversion of official development assistance.	This will be validated from an Undertaking for no funding from Annex-I parties, if any, does not result in a diversion of official development assistance and also by observations during site visit.
(i)	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid connected/ off-grid) and distribution mechanisms (e.g. direct installation);	<p>Each CPA will comprise of generating units of capacity 5kW-250kW and the target beneficiaries will be areas that do not have access to any electricity distribution system/network such as a national grid/regional grid before project implementation.</p> <p>The electricity distributed by the CPA will be used for the applications which may include lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps, mobile recharging etc.</p>	This will be validated by site visit and other information available in public domain regarding access to any electricity distribution system.
(j)	Where applicable, the	In the proposed PoA, the CME	Since all the electricity generated

	conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys	opts for a verification method that does not use sampling to verify each installation in SSC-CPA. A monitoring plan will be established such that each system under the SSC-CPA under this PoA are monitored and verified effectively.	under the CPAs will be monitored at household level, Sampling is not required.
(k)	Where applicable, the conditions that ensure that every CPA in aggregate meets the small-scale or microscale threshold criteria and remains within those thresholds throughout the crediting period of the CPA;	The total installed capacity of the CPA shall not exceed 1 MW	<ul style="list-style-type: none"> This will be verified from No. of Installations included and Capacity of Each installation. Declaration from the CME
(l)	Where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories.	<p>(1)For the debundling check, to check that there is no such activity: -</p> <ul style="list-style-type: none"> i. Which is a CPA registered (included) by the same CME in a PoA; OR ii. There is an application for the registration (inclusion) of the activity (CPA) under a PoA by the same CME; OR iii. Which is a registered CDM project activity by the same CME <p>(2)If the criterion (1) does hold true, the following is to be checked :</p> <ul style="list-style-type: none"> i. The activity (or any installation in the activity) is not present within 1 km radius of any of the generation units covered in the CPA. <p>(3)If the criterion (1) and (2) does hold true, the following is to be checked :</p> <ul style="list-style-type: none"> i. The combined capacity of the activity and the proposed CPA is less than 5 MW (the micro scale capacity limit). 	<p>The CME of the PoA to ensure the de-bundling check shall cross-check with the following documents/information at the time of SSC-CPA inclusion:</p> <ul style="list-style-type: none"> Land documents Geo-coordinates Undertaking by CME

Findings:

CAR # 02 was raised and closed successfully. Please refer Annex 3 for detail.

Opinion:

Based on the above assessment Validation team confirms that,

- The Eligibility criteria defined by CME are verifiable
- The eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA

4.12 Validation of CPAs

Discussion:

Compliance of CPA with each of the eligibility criteria's of PoA is discussed below:

Eligibility criteria for CPA inclusion	Assessment by Validation Team
All the installations in the CPA shall be located within the geographical boundary of India (i.e. host country). Documents to be checked by the CME at the time of inclusion of CPA: <ul style="list-style-type: none"> Land documents Geo-coordinates of the units using GPS device 	It has been verified from the following documents. <ul style="list-style-type: none"> Land lease^{/18/} dated 16/07/2012 issued by registering officer, Motihari Geo-co-ordinates of the project site using GPS device during site visit.
Each unit to be installed in each CPA will be given <ul style="list-style-type: none"> Title of the programme CPA no. Location details Geographical co-ordinates Type of technology used. 	The following information has been verified <ul style="list-style-type: none"> Title of the programme^{/2.2/} CPA no.^{/2.2/} Land lease^{/18/} dated 16/07/2012 issued by registering officer, Motihari Geo-co-ordinates of the project site using GPS device during site visit. Type of technology used^{/24/ & /25/} It is also checked on UNFCCC website http://cdm.unfccc.int/Projects/projsearch.html .
Each of the generation unit installed under the CPA shall comply to the MNRE guidelines: For biomass gasification unit- Notification// dated 28/04/2010 and/or For solar PV panels installed – Notification// dated 8/07/2010.	The CPA includes only Biomass gasification unit and following information has been verified for technical specification of generation unit. <ul style="list-style-type: none"> Purchase order^{/16/} dated 10/07/2012 issued to M/s. Prakash Diesels Pvt. Ltd. for the generator set and Technical Specifications.^{/24/} Purchase order^{/17/} of Biomass Gasifier dated 20/07/2012 and Technical Specifications^{/25/} Validation team confirms that the specifications are in line with MNRE guidelines stipulated in PoA DD.
The CME shall check the date of the placement of the first work order with respect to the installation of any generation unit in the CPA, which shall be after 24/05/2012 ³ and earlier	Start date of specific CPA included in the PoA is 10/07/2012 i.e. date of issue of purchase order for gas generator. Same has been confirmed from purchase order ^{/16/} issued to M/s. Prakash Diesels Pvt. Ltd. for the generator set. To validate the date of first real action taken purchase order of Biomass Gasifier dated ^{/17/} 20/07/2012 and

than the end date of the PoA (28 years from the date of registration).	Land lease document ^{/18/} dated 16/07/2012 have also been checked and start date considered is found to be ok.
Each CPA shall satisfy the applicability criteria described in the approved methodology AMS-I.L version 01, <i>Electrification of rural communities using renewable energy</i> .	The is discussed in section 4.5.2 of this report
Each CPA shall demonstrate the additionality as per the requirements of <i>"Guidelines for demonstrating additionality of micro scale project activities"</i> EB 68, Annex 26, version 04	This is discussed in section 4.6.2 of this report
<p>The local stakeholder consultation meeting shall be conducted for each CPA as per the CDM requirements at the time of inclusion. The CME shall verify all the documents related to stakeholder consultation meeting and the solicitation of the comments received from the stakeholder meetings will be described in section C of the specific CPA DD.</p> <p>The EIA requirement for each CPA shall be checked as per the prevailing host party laws, (the Schedule 1 of Ministry of Environment and Forests (Government of India).</p>	<p>The validation team has verified the related documents^{/23/8/30/} and interviewed some of the attendees of the stakeholder meeting during onsite visit and concludes that the project participant has explained about the project activity on 24/11/2011, in an unbiased manner and project has not received any adverse or significant comments.</p> <p>As per the prevailing host party laws, (the Schedule 1 of Ministry of Environment and Forests (Government of India) notification^{/29/} number S.O.3067 dated 1/12/2009 no EIA study is required for this CPA.</p>
The CME shall provide an undertaking that there shall be no funding from Annex-I parties, if any, does not result in a diversion of official development assistance before the inclusion of the CPA under the proposed PoA	Undertaking ^{/22/} for no funding from Annex-I parties has been provided by the SSC-CPA project developer. Document has been checked and found to be ok.
<p>Each CPA will comprise of generating units of capacity 5kW-250kW and the target beneficiaries will be areas that do not have access to any electricity distribution system/network such as a national grid/regional grid before project implementation.</p> <p>The electricity distributed by the CPA will be used for the applications</p>	It has been confirmed during site visit that the CPA-001 comprise of biomass gasification unit of capacity 32 kW supplying electricity to rural areas that do not have access to any electricity distribution system/network such as a national grid/regional grid before project implementation. Under the CPA-001, the end use of the electricity distributed will be for the applications which may include lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps, mobile recharging etc.

which may include lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps, mobile recharging etc.	
<p>In the proposed PoA, the CME opts for a verification method that does not use sampling to verify each installation in SSC-CPA.</p> <p>A monitoring plan will be established such that each system under the SSC-CPA under this PoA is monitored and verified.</p>	Since all the electricity generated under the CPAs will be monitored at end user level, Sampling is not required.
<p>The total installed capacity of the CPA shall not exceed 1MW. The following documents shall be provided at the time of SSC-CPA inclusion:</p> <p>Declaration from the CME</p>	<p>The total installed capacity of the CPA is of 32 kW which is less than 1 MW. This has been verified from</p> <ul style="list-style-type: none"> Purchase order^{/16/} dated 10/07/2012 issued to M/s. Prakash Diesels Pvt. Ltd. for the generator set and Technical Specifications.^{/24/} Purchase order^{/17/} of Biomass Gasifier dated 20/07/2012 and Technical Specifications^{/25/}
<p>1) For the debundling check, to check that there is no such activity: -</p> <ol style="list-style-type: none"> Which is a CPA registered (included) by the same CME in a PoA; OR There is an application for the registration (inclusion) of the activity (CPA) under a PoA by the same CME; OR Which is a registered CDM project activity by the same CME <p>(2) If the criterion (1) does hold true, the following is to be checked :</p> <ol style="list-style-type: none"> The activity (or any installation in the activity) is not present within 1 km radius of any of the generation units covered in the CPA. <p>(3) If the criterion (1) and (2) does hold true, the following is to be checked :</p> <ol style="list-style-type: none"> The combined capacity of the activity and the proposed CPA is less than 5 MW (the microscale capacity limit). <p>The CME of the PoA to ensure the de-bundling check shall cross-check with the following documents/information at the time of SSC-CPA inclusion:</p>	<p>The following information has been verified</p> <ul style="list-style-type: none"> Undertaking from CME^{/26/} Land lease dated^{/18/} 16/07/2012 issued by registering officer, Motihari Geo-co-ordinates of the project site using GPS device during site visit. UNFCCC website http://cdm.unfccc.int/Projects/projsearch.html. <p>Based on the information verified, Validation team confirms that project activity is not a de bundled component of large scale project activity.</p>



<ul style="list-style-type: none">• Land documents• Geo-coordinates• Undertaking from the CME pertaining to above requirement.	
--	--

Findings:

CAR #09 & CL #11 were raised in this regard. Please refer Annex 3 for detail.

Opinion:

Based on the above assessment validation team confirms that the Specific CPA – 001 is complying with all the eligibility criteria defined in PoA and therefore eligible for inclusion under the proposed PoA.

5. Global Stakeholder Consultation Process

In accordance with CDM modalities and procedures and section D of VVS V2.0, the PoA DD of a proposed CDM programme of activities shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

5.1 Description of how and when the POA DD was made publicly available

The PoA DD for this PoA was made available on <http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/XK1XTB6G0XNK4UZVUPXS4E6DURQDIB/view.html> and was open for comments from 24/05/2012 until 22/06/2012.

5.2 Compilation of all comments received

No comment is received during the global stakeholder consultation process

5.3 Explanation of how comments have been taken into account

No comment is received during the global stakeholder consultation process

6. References

S. No.	Name of document (Main Validation Documents)
/1/	/1.1/ PoA DD Version 01 dated 16/05/2012 (made publicly available) /1.2/ CPA DD Version 01 dated 16/05/2012 (made publicly available)
/2/	/2.1/ PoA DD Version 1.5 dated 12/12/2012 (final version) /2.2/ CPA DD Version 1.4 dated 07/12/2012 (final version)
/3/	/3.1/ ER spreadsheet version 01 dated 16/05/2012 /3.2/ ER spreadsheet version 1.1 dated 24/11/2012
/4/	Letter of Approval from Ministry of Environment and Forests, India (host Party) dated 22/11/2012 ref. no. 4/15/2012-CCC
/5/	Modalities of Communication dated 14/08/2012

S. No.	Name of document (Background documents used during validation process)
/6/	CDM VVS Version 2.0 dated 25/11/2011 (EB 65annex 04)
/7/	AMS I. L, version 1.0 Electrification of rural communities using renewable energy
/8/	Guidelines for demonstrating additionality of microscale project activities EB 68, Annex 26, ver 04
/9/	Guidelines for completing the programme design document form For small-scale CDM programmes of activities version 2.0, EB 67 Annex 30
/10/	Guidelines for completing the component project activity design document form for small-scale component project activities Version 1.0, EB 66 Annex 17
/11/	Installation preliminary reviewby CPA implementer
/12/	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, version 01, EB 65 annex 3.
/13/	General guidance on leakage in biomass project activities,version 3.0 EB47 annex 28
/14/	https://energypedia.info/index.php/Bihar_Energy_Situation
/15/	http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/XK1XTB6G0XNK4UZVUPXS4E6DURQDIB/view.html
/16/	Purchase order issued to Prakash Diesel Dated 10/07/2012 for Generator set
/17/	Purchase order issued to Ganesh Engineering Works for Biomass Gasifier dated 20/07/2012
/18/	Land Lease document dated 16/07/2012 issued by registering officer, Motihari
/19/	Internal communication dated 21/08/2012 for reduction in no of units in CPA-001
/20/	Supporting document for operational lifetime of generator set dated 06/07/2012 issued by m/s Prakash Diesels.
/21/	Supporting document for operational lifetime of Biomass Gasifier dated 05/07/2012 issued by m/s Ganesh Engineering Works.
/22/	Declaration for No Official Development Assistance form Annex -1 country dated 23/07/2012
/23/	Minutes of Local Stake holder meetings held at Bettiah 24/11/2011, Gopalganj 24/11/2011and Runnisaidpur 25/11/2011 and Photographs.
/24/	Technical Specifications of generator Set provided by M/s Prakash Diesels
/25/	Technical Specification of Biomass Gasifier by M/s Ganesh Engineering works
/26/	Declaration from CME for CPA inclusion dated 24/10/2012
/27/	MNRE guidelines For biomass gasification unit-Notification dated 28/04/2010 http://www.mnre.gov.in/file-manager/offgrid-biomass-gas-schemes/biomassgasifier-2010-11.pdf .

/28/	MNRE guidelines for solar PV panels installed -Notification dated 8/07/2010 http://mnre.gov.in/file-manager/dec-solar-thermal-systems/aa-mnre-jnnsn-2010-11.pdf
/29/	Ministry of Environment and Forests (Government of India) notification number S.O.3067 dated 1/12/2009 http://moef.nic.in/downloads/rules-and-regulations/3067.pdf
/30/	Advertisement dated 10/11/2011 in Local News paper 'Aaj' for Local Stake holder Meeting.
/31/	CME management manual version 1.0 dated Sep 2012
/32/	Report on Renewable Energy Potential Assessment and Renewable Energy Action Plan for Bihar dated May 2011, Prepared by World Institute of Sustainable Energy, Pune
/33/	Undertaking (Format) by end user at the time of connection allotment.

-

Annex 1: Validation Protocol (PoA DD)

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

Requirement(s)	Ref	Validation Assessment	Conclusion																									
			Draft	Final																								
1. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for a minimum of 30 days (45 days for A/R large scale projects), and POA DD and comments have been made publicly available	Para 13, 20, 21 of PCP Para 34, 35, 36 of VVS (Section E of VVS)	<div>Provide information on the global stakeholder process website:http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/XK1XTB6G0XNK4UZVUPXS4E6DURQDIB/view.html</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>POA DD has been made publicly available from 24/05/2012 to 22/06/2012, as required for GSP comments</td><td>Yes</td><td>DR</td></tr><tr><td>Comments received</td><td>No</td><td>DR</td></tr><tr><td>Comments made publicly available</td><td>NA</td><td></td></tr><tr><td>Is there any doubt with regard to authenticity of comments received</td><td>NA</td><td></td></tr></table>	Validation Criteria	Yes/No	MoV	POA DD has been made publicly available from 24/05/2012 to 22/06/2012, as required for GSP comments	Yes	DR	Comments received	No	DR	Comments made publicly available	NA		Is there any doubt with regard to authenticity of comments received	NA		Ok	Ok									
Validation Criteria	Yes/No	MoV																										
POA DD has been made publicly available from 24/05/2012 to 22/06/2012, as required for GSP comments	Yes	DR																										
Comments received	No	DR																										
Comments made publicly available	NA																											
Is there any doubt with regard to authenticity of comments received	NA																											
2. Approval 2.1 Has the DNA of each Party involved in the proposed CDM project activity in section A.4 of the POA DD provided a written letter of approval, which confirms a) The Party is a Party to the Kyoto Protocol b) Participation is Voluntary c) In case of host Party, confirming that the proposed CDM project activity contributes to sustainable development of the country d) It refers to the precise proposed CDM project activity title in the POA DD being submitted for registration 2.2. Whether the letter(s) of approval is unconditional with respect to (a)-(d) above? 2.3. The letter(s) of approval has been issued by	Para 38 of VVS Para 39 of VVS Para 40 of VVS Para 41 of VVS (Section F of VVS)	<div>LoA has not been submitted</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The Party is a Party to the Kyoto Protocol</td><td>Yes</td><td>DR</td></tr><tr><td>Participation is voluntary</td><td>Yes</td><td>DR</td></tr><tr><td>In case of host Party, the proposed PoA contributes to the sustainable development of country</td><td>Yes</td><td>DR</td></tr><tr><td>It refers to the precise proposed CDM project activity title in the POA DD being submitted for registration</td><td>Yes</td><td>DR</td></tr></table> <div>LoA has been received from PP. Since validation team does not doubt the authenticity of LoA so no further cross check has been performed.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The letter(s) of approval has been received directly from respective DNA</td><td>No</td><td></td></tr><tr><td>The authenticity of letter(s) of approval verified with DNA</td><td>No</td><td></td></tr></table>	Validation Criteria	Yes/No	MoV	The Party is a Party to the Kyoto Protocol	Yes	DR	Participation is voluntary	Yes	DR	In case of host Party, the proposed PoA contributes to the sustainable development of country	Yes	DR	It refers to the precise proposed CDM project activity title in the POA DD being submitted for registration	Yes	DR	Validation Criteria	Yes/No	MoV	The letter(s) of approval has been received directly from respective DNA	No		The authenticity of letter(s) of approval verified with DNA	No		CAR-01	Ok
Validation Criteria	Yes/No	MoV																										
The Party is a Party to the Kyoto Protocol	Yes	DR																										
Participation is voluntary	Yes	DR																										
In case of host Party, the proposed PoA contributes to the sustainable development of country	Yes	DR																										
It refers to the precise proposed CDM project activity title in the POA DD being submitted for registration	Yes	DR																										
Validation Criteria	Yes/No	MoV																										
The letter(s) of approval has been received directly from respective DNA	No																											
The authenticity of letter(s) of approval verified with DNA	No																											

respective Party's DNA and is valid for the project PA under validation		<table><tr><td>The letter(s) of approval is valid for PA under validation</td><td>Yes</td><td>DR</td></tr></table>	The letter(s) of approval is valid for PA under validation	Yes	DR																													
The letter(s) of approval is valid for PA under validation	Yes	DR																																
3. Whether each project participant has been authorized by at least one Party involved in a letter of approval.	Para 45 of VVS (Section G of VVS)	<div><div><div><div>LoA has not been submitted</div></div></div><table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The PPs are listed in tabular form in the POA DD and information is consistent with Appendix 1 of POA DD</td><td>Yes</td><td>DR</td></tr><tr><td>No entities other than those authorized as PPs are included in A.4 & Appendix 1 of the POA DD.</td><td>Yes</td><td>DR</td></tr><tr><td>The approval of participation has been issued from the relevant DNA</td><td>yes</td><td>DR</td></tr></table></div>	Validation Criteria	Yes/No	MoV	The PPs are listed in tabular form in the POA DD and information is consistent with Appendix 1 of POA DD	Yes	DR	No entities other than those authorized as PPs are included in A.4 & Appendix 1 of the POA DD.	Yes	DR	The approval of participation has been issued from the relevant DNA	yes	DR	CAR-01	Ok																		
Validation Criteria	Yes/No	MoV																																
The PPs are listed in tabular form in the POA DD and information is consistent with Appendix 1 of POA DD	Yes	DR																																
No entities other than those authorized as PPs are included in A.4 & Appendix 1 of the POA DD.	Yes	DR																																
The approval of participation has been issued from the relevant DNA	yes	DR																																
4. The DNA has considered whether the proposed CDM project activity assists the host Party in achieving sustainable development	Para 50 of VVS (Section H of VVS)	<div><div><div><div>LoA Has not been submitted</div></div></div><table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>The LoA (host Party) confirms the same</td><td>Yes</td><td>DR</td></tr></table></div>	Validation Criteria	Yes/No	MoV	The LoA (host Party) confirms the same	Yes	DR	CAR-01	Ok																								
Validation Criteria	Yes/No	MoV																																
The LoA (host Party) confirms the same	Yes	DR																																
5. Modalities of communications 5.1 Validation the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories. 5.2 Validation that the MoC statement has been correctly completed and duly authorized.	Para 53 of VVS (Section I of VVS) Para 59 of VVS	<div><div><div><div>MoC form has not been submitted</div></div></div><div><div>MoC dated 14/08/2012 has been submitted.</div><table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Directly checked the evidence for corporate, personal identity and other relevant documentation</td><td>Yes</td><td>DR,I</td></tr><tr><td>Notarized documentation; or</td><td>NA</td><td></td></tr><tr><td>Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate</td><td>Yes</td><td>DR</td></tr><tr><td>MoC is received from PP/CME (except in the case of Notarized)</td><td>Yes</td><td>DR</td></tr><tr><td>The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked</td><td>Yes</td><td>DR</td></tr></table></div><div><table><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Latest version of the form 'F-CDM-MOC' is used</td><td>Yes</td><td>DR</td></tr><tr><td>The information required as per F-CDM-MOC, including its Annex 1, is correctly filled</td><td>Yes</td><td>DR</td></tr><tr><td>The signatory in F-CDM-MOC and Annex 1 are same/consistent</td><td>Yes</td><td>DR</td></tr></table></div></div>	Validation Criteria	Yes/No	MoV	Directly checked the evidence for corporate, personal identity and other relevant documentation	Yes	DR,I	Notarized documentation; or	NA		Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate	Yes	DR	MoC is received from PP/CME (except in the case of Notarized)	Yes	DR	The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked	Yes	DR	Validation Criteria	Yes/No	MoV	Latest version of the form 'F-CDM-MOC' is used	Yes	DR	The information required as per F-CDM-MOC, including its Annex 1, is correctly filled	Yes	DR	The signatory in F-CDM-MOC and Annex 1 are same/consistent	Yes	DR	CAR-01(b)	Ok
Validation Criteria	Yes/No	MoV																																
Directly checked the evidence for corporate, personal identity and other relevant documentation	Yes	DR,I																																
Notarized documentation; or	NA																																	
Written confirmation from PP/CME that submits to it the MoC statement that all corporate and personal details, including specimen signature, are valid and accurate	Yes	DR																																
MoC is received from PP/CME (except in the case of Notarized)	Yes	DR																																
The authorized capacity(ies) of personnel submitting the MoC or written confirmation is checked	Yes	DR																																
Validation Criteria	Yes/No	MoV																																
Latest version of the form 'F-CDM-MOC' is used	Yes	DR																																
The information required as per F-CDM-MOC, including its Annex 1, is correctly filled	Yes	DR																																
The signatory in F-CDM-MOC and Annex 1 are same/consistent	Yes	DR																																

6. Whether the POA DD was completed using the latest version of the POA DD form appropriate to the type of project activity.	Para 62 of VVS (Section J of VVS)	Yes POA DD is completed using the latest version 2.0 of the POA DD available at http://cdm.unfccc.int/Reference/PDDs_Forms/index.html#reg			Ok	Ok															
7. State the project participants listed in the POA DD and check with which of these project participants does KBS have a contract for the projects validation.	Para 15 of PCP	<table><tr><td colspan="3">Yes project participants are listed in PoA DD</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Name of the PPs appears in the POA DD (GSP) with which KBS has validation contract</td><td>Yes</td><td>DR</td></tr><tr><td>Husk Power Systems Private Limited</td><td>Yes</td><td>DR</td></tr></table>			Yes project participants are listed in PoA DD			Validation Criteria	Yes/No	MoV	Name of the PPs appears in the POA DD (GSP) with which KBS has validation contract	Yes	DR	Husk Power Systems Private Limited	Yes	DR	Ok	Ok			
Yes project participants are listed in PoA DD																					
Validation Criteria	Yes/No	MoV																			
Name of the PPs appears in the POA DD (GSP) with which KBS has validation contract	Yes	DR																			
Husk Power Systems Private Limited	Yes	DR																			
7.1. If the project participant(s) listed in the POA DD published at international stakeholder consultation are not included in the POA DD submitted with request for registration, a letter should be obtained from the withdrawn project participant(s) confirming its voluntary withdrawal from the proposed project activity.	Para 15 of PCP	<table><tr><td colspan="3">Yes project participant 'Shell Trading International Limited' is not included in PoA DD submitted for RFR. Since KBS has not signed any validation contract with the said participant its name has been removed from the revised PoA DD.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td><td>MoV</td></tr><tr><td>Name of the PPs in the POA DD (RFR) with which KBS has validation contract is consistent with the one in POA DD (GSP)</td><td>Yes</td><td>DR</td></tr><tr><td>Is there any PP removed between POA DD (GSP) and POA DD (RFR)</td><td>Yes</td><td>DR</td></tr><tr><td>If yes, has such voluntary withdrawal is confirmed in writing from the PP.</td><td>NA</td><td>NA</td></tr></table>			Yes project participant 'Shell Trading International Limited' is not included in PoA DD submitted for RFR. Since KBS has not signed any validation contract with the said participant its name has been removed from the revised PoA DD.			Validation Criteria	Yes/No	MoV	Name of the PPs in the POA DD (RFR) with which KBS has validation contract is consistent with the one in POA DD (GSP)	Yes	DR	Is there any PP removed between POA DD (GSP) and POA DD (RFR)	Yes	DR	If yes, has such voluntary withdrawal is confirmed in writing from the PP.	NA	NA	OK	Ok
Yes project participant 'Shell Trading International Limited' is not included in PoA DD submitted for RFR. Since KBS has not signed any validation contract with the said participant its name has been removed from the revised PoA DD.																					
Validation Criteria	Yes/No	MoV																			
Name of the PPs in the POA DD (RFR) with which KBS has validation contract is consistent with the one in POA DD (GSP)	Yes	DR																			
Is there any PP removed between POA DD (GSP) and POA DD (RFR)	Yes	DR																			
If yes, has such voluntary withdrawal is confirmed in writing from the PP.	NA	NA																			
7.2. Confirm while submitting a request for registration – all of the project participants with a contractual relationship are still listed in the POA DD.	Para 15 of PCP	Yes all of the project participants with a contractual relationship are still listed in the POA DD.			Ok	Ok															
7.3. Project participants who are listed in the POA DD (submitted for global stakeholder consultation) but who do not have a contractual relationship with KBS for the purposes of the validation activity may be removed from the POA DD which is submitted for registration	Para 15 of PCP	Yes project participant 'Shell Trading International Limited' is not included in PoA DD submitted for RFR. Since KBS has not signed any validation contract with the said participant, So no letter for voluntary withdrawal has been obtained.			Ok	Ok															
7.4. KBS may restart the validation activity through the new or revised contract with a different set of project participants by:	Para 16 of PCP	Not Applicable			NA	NA															



a. Indicating that the first validation contract has been terminated and; b. Republishing the POA DD or revised POA DD for global stakeholder consultation.				
--	--	--	--	--



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

Checklist Question(s)	Ref	MoV*	Validation Assessment	Conclusion			
				Draft	Final		
SECTION A. Description of Project Activity							
A.1. Title of PoA							
A. 1 Is the section A.1 of the POA DD is correctly and completely filled?	POA DD Page 4	DR	Yes the details required are provided in this section.		Ok	Ok	
			Validation Criteria				Yes/No
			Title of the project activity				Yes
			Version number of the POA DD				Yes
			Completion date of the POA DD				Yes
A.2. Purpose and general description of the PoA							
A.2.1 Is the Policy/measure or stated goal that the PoA seeks to promote is included?	A.2 POA DD	DR	Yes Policy/measure or stated goal that the PoA seeks to promote is included		Ok	Ok	
A.2.2 Is the Framework for the implementation of the proposed PoA is included?	A.2 POA DD	DR	Yes the Framework for the implementation of the proposed PoA is included in the PoA DD		Ok	Ok	
A.2.3 Is the confirmation that the PoA is a voluntary action by the CME is included?	A.2 POA DD	DR	Yes the confirmation that the PoA is a voluntary action by the CME is included in the section A.2 of PoA DD.		Ok	Ok	
A.2.4 Is a brief description of how the proposed PoA contributes to sustainable development is included? (not more than one page).	A.2 POA DD	DR	Yes description of how the proposed PoA contributes to sustainable development is included in section A.2 of PoA DD		Ok	Ok	



A.2.5 Does the Section A.2 of PoA DD contains information as required by CDM PS?	Para 31, PS	DR	Validation Criteria	Yes/No		Ok	Ok
			Describe the purpose of the project activity, including a summary of the scope of activities/measures that are to be implemented within the project activity	Yes			
			Explain how the project activity will reduce GHG emissions or increase GHG removals	Yes			
			Indicate the sectoral scope(s) and type of the project activity	Yes			
A.3CMEs and participants of PoA							
A.3.1. Is the Identity of the CME of the proposed PoA, as the entity which communicates with the Board described?	Para 33 of PS A.3 of POA DD	DR	Yes Identity of the CME of the proposed PoA, as the entity which communicates with the Board described in section A.3 of PoA DD			Ok	Ok
A.3.2 Are the Project participants to the PoA included in this section? <i>(Project participants may or may not be involved in one of the component project activities (CPAs) related to the PoA).</i>	A.3 of POA DD	DR	Yes Project participants to the PoA included in this section			Ok	Ok
A.4 Party (ies)							
A.4.1 Is the table required for the indication of Party(ies) and project participant(s) correctly applied?	A.4 POA DD	DR	Yes table required for the indication of Party(ies) and project participant(s) is correctly applied			Ok	Ok
A.4.2 Is all information provided in consistency with details provided by further chapters of the POA DD (in particular Appendix 1)?	A.4 POA DD	DR	Yes all information provided is in consistency with details provided by further chapters of the POA DD			Ok	Ok
A.5 Physical/ Geographical boundary of the PoA							



A.5.1 Is the details of the defined boundary of the proposed PoA in terms of a geographical area (e.g. municipality, region within a country, country or several countries) within which all CPAs to be included in the PoA will be implemented, provided in this section?	A.5 POA DD	DR	Yes geographical boundary of PoA is defined in this section. Political boundary of India (host) is considered as the boundary of PoA	Ok	Ok										
A.5.2 Does the project participants have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary in establishing the boundary of the PoA?	Para 192 VVS	DR	Yes project participant have taken in to consideration all applicable national and/or sectoral policies and regulations issued by MNRE & MoEF (NCDMA)	Ok	Ok										
A.6. Technologies and/or measures															
A.6.1 Does the POA DD defines the technologies and measures to be employed and/or implemented by CPA in the PoA?	A.6 of POA DD	DR	PP has defined the technology and measures to be employed however information is not complete on the all the equipments to be installed, so CAR 03 and CL 12 has been raised in this regard. Additional Information on technologies to be employed is provided hence Issue is closed.	CAR-03 CL-12	Ok										
A.7. Public funding of project activity															
A.7.1.Does the information on public funding provided conforms to the actual situation or planning as presented by the project participant(s)?	A.7 of POA DD	DR, I	<div>CL 11 has been raised</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Does project receives any public funding?</td><td>No</td></tr><tr><td>Is the funding from Parties included in Annex I to Kyoto Protocol?</td><td>No</td></tr><tr><td>If yes, information regarding public funding is provided?</td><td>NA</td></tr><tr><td></td><td></td></tr></table> <div>A declaration has been submitted by CME that no public funding is involved hence CL 11 is closed</div>	Validation Criteria	Yes/No	Does project receives any public funding?	No	Is the funding from Parties included in Annex I to Kyoto Protocol?	No	If yes, information regarding public funding is provided?	NA			CL 11	Ok
Validation Criteria	Yes/No														
Does project receives any public funding?	No														
Is the funding from Parties included in Annex I to Kyoto Protocol?	No														
If yes, information regarding public funding is provided?	NA														
A.7.2.Is all information provided consistent with details provided by further chapters of the POA DD (in particular Appendix 2)?	A.7 of POA DD	DR, I	Yes all information provided consistent with details provided by further chapters of the POA DD	Ok	Ok										



A.7.3 In case of public funding from Annex I Parties, is it confirmed that such funding does not result in a diversion of official development assistance?	Para 34 of PS		Not Applicable		
SECTION B. Demonstration of additionality and development of eligibility criteria					
B.1. Demonstration of additionality for PoA					
B.1.1 Is additionality of a PoA demonstrated in accordance with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities?	Para 195, VVS	DR	Yes additionality of a PoA is demonstrated in accordance with EB 65, Annex 3 Para 8.	Ok	Ok
B.1.2 If the PoA consist of one or more microscale projects as CPAs, has it included in the additionality criteria all the relevant requirements of the “ <i>Guidelines for demonstrating additionality of microscale project activities</i> ”.	EB 65 Annex 3, Para 8	DR	Yes PoA consists of micro scale project activities and therefore Guidelines for demonstrating additionality of micro scale project activities has been followed. However version no .of guideline used in not mentioned.	CAR-02 point 6	Ok
B.1.3 If the PoA consist of one or more small scale projects as CPAs, has it included in the additionality criteria all the relevant requirements of the “ <i>Guidelines on the demonstration of additionality of small-scale project activities</i> ”.	EB 65 Annex 3, Para 9	DR	Not applicable	NA	NA
B.1.3 If the PoA consist of one or more large scale projects as CPAs, has it included in the additionality criteria all the relevant requirements contained in the additionality section of the large scale methodologies.	EB 65 Annex 3, Para 10	DR	Not applicable	NA	NA



B.2 Eligibility criteria for inclusion of a CPA in the PoA					
B.2.1 The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	EB 65, Annex 3 Para 14(a)	DR	Yes the criteria for geographical boundary is included in section B.2	Ok	Ok
B.2.2 Has the CME included the provisions to avoid double counting of the emission reduction?	EB 65, Annex 3 Para 14(b)	DR	Yes the condition has been included in eligibility criteria.	Ok	Ok
B.2.3 Has the CME clearly included the specifications of technology/measure including the level and type of service	EB 65, Annex 3 Para 14(c)	DR	Exact paragraph/reference of the notification which is to be followed as defined in eligibility criterion is not clearly mentioned. Additional Information has been provided so CAR 02 is Closed	CAR-02	Ok
B.2.4 Has the CME included the conditions to check the start date of the CPA as per the start date definition of CPA	EB 65, Annex 3 Para 14(d)	DR	Yes the conditions to check the start date of the CPA is included	Ok	Ok
B.2.5 Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs.	EB 65, Annex 3 para 14(e) EB 63 Annex 4	DR	The Condition is not included in Eligibility criteria. The condition is included in Revised PoA DD so CAR 02 is Closed	CAR-02	OK
B.2.6 Has the CME included conditions for the CPAs to meet the requirements of the latest available Standard of Additionality	EB 65, Annex 3 para 14(f) EB 63 Annex 2	DR	The Condition is not included in Eligibility criteria. The condition is included in Revised PoA DD so CAR 02 is Closed	CAR-02	Ok



B.2.7 Has the CME included the specific requirements of the conditions of local stakeholder and environment impact analysis for each CPA	EB 65, Annex 3 para 14(g)	DR	The criterion for Local stakeholder consultation is included but it is not included for environment impact analysis for each CPA; hence CAR 02 is raised The condition is included in Revised PoA DD so CAR 02 is Closed	CAR-02	Ok
B.2.8 Has the conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance;	EB 65, Annex 3 para 14(h)	DR	The eligibility criterion in this regard is not defined in PoA DD	CAR-02	Ok
B.2.9 Has the CME identified the target group correctly?	EB 65, Annex 3 para 14(i)	DR	The information to be checked under this eligibility criterion is not consistent with the actual site conditions. Hence CAR 02 has been raised.	CAR-02	Ok
B.2.10 Has the CME correctly provided the sampling plans and followed the correct guidelines/standards of sampling?	EB 65, Annex 3 para 14(j)	DR	The eligibility criterion in this regard is not defined in PoA DD	CAR-02	Ok
B.2.11 Has the CME included the provisions of check for the micro scale or small scale threshold criteria throughout the crediting period?	EB 65, Annex 3 para 14(k)	DR	Yes the criterion has been included.	Ok	Ok
B.2.12 Has the CME included the provisions of check for debundling in case of each CPA?	EB 65, Annex 3 para 14(l), Para 203, VVS	DR	Criterion on de bundling is not clearly defined in PoA DD Additional Information has been provided so CAR 02 is Closed	CAR-02	Ok
B.3 Application of methodology (ies)					



B.3.1 Is the reference to the selected methodology consistent with the CDM website?	B.3 of POA DD Para 35 of PS	DR	Yes the reference to the selected methodology consistent with the CDM website http://cdm.unfccc.int/methodologies/PAmethodologies/approved <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The number of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The title of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The version of the selected methodology is correct</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The number of the selected methodology is correct	Yes	The title of the selected methodology is correct	Yes	The version of the selected methodology is correct	Yes	Ok	Ok						
Validation Criteria	Yes/No																		
The number of the selected methodology is correct	Yes																		
The title of the selected methodology is correct	Yes																		
The version of the selected methodology is correct	Yes																		
B.3.2 Is the reference to any tools, standards or guidelines as required by the methodology provided?	Para 36 of PS	DR	Yes reference to tools, standards and guidelines as required by the methodology is provided. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The title of tools/guidelines/standards is correct</td><td>Yes</td></tr><tr><td>The version of tools/guidelines/standards is correct</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The title of tools/guidelines/standards is correct	Yes	The version of tools/guidelines/standards is correct	Yes	Ok	Ok								
Validation Criteria	Yes/No																		
The title of tools/guidelines/standards is correct	Yes																		
The version of tools/guidelines/standards is correct	Yes																		
B.3.3 Is the selected methodology and referenced tools/standards/guidances are valid at the time of request for registration?	Para 70-71, 75 VVS	DR	Yes latest version of tools, standards and guidance are used in PoA DD. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The selected methodology is valid at request for registration</td><td>Yes</td></tr><tr><td>The reference tools/guidelines/standards/EB decision are applied correctly</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The selected methodology is valid at request for registration	Yes	The reference tools/guidelines/standards/EB decision are applied correctly	Yes	Ok	Ok								
Validation Criteria	Yes/No																		
The selected methodology is valid at request for registration	Yes																		
The reference tools/guidelines/standards/EB decision are applied correctly	Yes																		
B.3.4 Does the POA DD contains information as why the selected approved methodology applicable to the project activity?	Para 38 of PS B.3 of POA DD	DR	Yes all the applicability criteria are discussed in section B.3 of PoA DD. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>All applicability conditions of selected methodology included</td><td>Yes</td></tr><tr><td>Applicability conditions are consistent with the selected methodology(ies)</td><td>Yes</td></tr><tr><td>Justification for each applicability conditions is provided</td><td>Yes</td></tr><tr><td>All applicability conditions of referred tools/standards/guidelines included</td><td>Yes</td></tr><tr><td>Applicability conditions are consistent with the referred tools/standards/guidelines</td><td>Yes</td></tr><tr><td>Justification for each applicability conditions is provided</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	All applicability conditions of selected methodology included	Yes	Applicability conditions are consistent with the selected methodology(ies)	Yes	Justification for each applicability conditions is provided	Yes	All applicability conditions of referred tools/standards/guidelines included	Yes	Applicability conditions are consistent with the referred tools/standards/guidelines	Yes	Justification for each applicability conditions is provided	Yes	Ok	Ok
Validation Criteria	Yes/No																		
All applicability conditions of selected methodology included	Yes																		
Applicability conditions are consistent with the selected methodology(ies)	Yes																		
Justification for each applicability conditions is provided	Yes																		
All applicability conditions of referred tools/standards/guidelines included	Yes																		
Applicability conditions are consistent with the referred tools/standards/guidelines	Yes																		
Justification for each applicability conditions is provided	Yes																		



B.3.5 Is the justification provided in the POA DD based correctly quoted and interpreted?	Para 76 of VVS	DR	Yes justification against each applicability criteria is correctly quoted and explained.	Ok	Ok		
	B.2 of POA DD		Validation Criteria			Yes/No	
			Justification against each applicability conditions is critically explained/substantiated inB.3 of POA DD			Yes	
			Is explanation of documentation used consistent with Appendix 3 of POA DD, if used			NA	
			The information in POA DD is compared/cross checked with other sources, if available, using local expertise and sectoral expert			Yes	
B.3.6 Is the applicability of the selected methodology satisfied/met?	Para 76 of VVS	DR	Yes PoA meets all the applicability criteria of methodology. It is also confirmed during site visit.	Ok	OK		
	Para 78, 81 of VVS		Validation Criteria			Yes/No	
			The selected methodology is applicable to project activity			Yes	
			Is there any deviation from methodology found or applied			No	
			Is there any clarification that has been sought or applied in the project activity			No	
Section C Management System							
C.1Is there a clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies made available to the DOE at the time of validation of the PoA.	EB 65, Annex 3 para 17	DR	The information provided in this section is not in line with EB 65, Annex 3, Para 17 Hence CL 05 has been raised in this regard. A CME management manual including the roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies made available to the DOE	CL-05	OK		
C.2 Are there records of arrangements for training and capacity development for personnel made available to the DOE at the time of validation of the PoA?	EB 65, Annex 3	DR	Refer CL-05 Yes-records of arrangements for training and capacity development for personnel made available to the DOE at the time of validation of the PoA	CL-05	Ok		



C.3 Are there established procedures for technical review of inclusion of CPAs made available to the DOE at the time of validation of the PoA?	EB 65, Annex 3	DR	Refer CL 05 Yes-established procedures for technical review of inclusion of CPAs made available to the DOE at the time of validation of the PoA	CL 05	Ok		
C.4 Is there a procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA)	EB 65, Annex 3	DR	Refer CL 05 Yes a procedure to avoid double counting is included in PoA DD	CL 05	Ok		
C.5 Records and documentation control process for each CPA under the PoA, made available to the DOE at the time of request for inclusion of the CPA	EB 65, Annex 3	DR	Refer CL 05 A CME management manual including Records and documentation control process for each CPA under the PoA, made available to the DOE	CL 05	Ok		
C.6 Are Measures for continual improvement of the PoA management made available?	EB 65, Annex 3	DR	Refer CL 05 Measures for continual improvement of the PoA management is included in PoA DD	CL 05	Ok		
SECTION D. Duration and crediting period							
D.1 Is the start date of the PoA clearly defined and reasonable?	Para 193, VVS D.1 of POA DD	DR	Yes the start date of PoA has been clearly defined. The date of webhosting of PoA is considered as start date of PoA.		Ok	OK	
			Validation Criteria				Yes/No
			The start date of project activity is correctly included in the POA DD in DD/MM/YYYY format				Yes
			The evidence to support start date of PoA is included in the POA DD				Yes
D.2 Is the assumed length of the PoA clearly defined by the coordinating managing entity and reasonable (max 28 years)?	Para 197 of VVS, D.2 of POA DD	DR	The assumed length of PoA is 28 years and it is clearly defined in section D.2.		Ok	Ok	
SECTION E. Environmental impacts							
E.1 Level at which environmental analysis is undertaken							



E.1.1 Is it defined whether the environmental analysis takes place at PoA or CPA level?	Para 200, VVS	DR	Yes it is defined that the environment analysis will be done at CPA level.	Ok	Ok
E.1.2 Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	D.1 of PoA DD	DR	Yes the choice is justified in a clear and reasonable manner	Ok	Ok
E.2 Analysis of the environmental impacts					
E.2.1 Are there any Host Party requirements for an Environmental Impact Assessment(EIA), and if yes, has an EIA been approved?	D.1 of PoA DD	DR	EIA will be carried out at CPA level.	Ok	Ok
E.2.2 Has the analysis of the environmental impacts of the project activity been sufficiently described?	D.1 of PoA DD	DR	EIA will be carried out at CPA level.	Ok	Ok
E.2.3 Will the project create any adverse environmental effects?	D.1 of PoA DD	DR	EIA will be carried out at CPA level.	Ok	Ok
SECTION F. Local stakeholder consultation					
F.1. Solicitation of comments from local stakeholders					
F.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level?	Para 166-167 of PS	DR	Yes there is a clear statement that the stakeholder comments will be invited at CPA level.	Ok	Ok
F.1.2 Is the choice justified in a clear and reasonable manner?	Para 166-167 of PS	DR	Yes the choice is justified in a clear and reasonable manner	Ok	Ok



F.1.3 If the stakeholder comments are invited at PoA level, is there sufficient information provided, on how comments by localstakeholders were invited?	Para 166-167 of PS	DR	Stakeholder comments are not invited at PoA level.	Ok	Ok										
F.2 Summary of comments received															
F.2.1 If the stakeholder comments will be invited at PoA level, is there a summary of thecontents?	Para 166-167 of PS	DR	Stakeholder comments are not invited at PoA level.	Ok	Ok										
F.3 Report on consideration of comments received															
F.3.1 If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how due account was taken of any comments received?	Para 166-167 of PS	DR	Stakeholder comments are not invited at PoA level.	Ok	Ok										
SECTION G. Approval and authorization															
F.1.1 Has the approval and authorization is indicated correctly?	Para 168-173, of PS G of POA DD	DR	Yes the approval and authorization is indicated correctly. PP has not received LoA at the time of GSP and CAR 01 has been raised in this regard. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The letter of approval at GSP of POA DD is available</td><td>No</td></tr><tr><td>The information in this regard is included in the POA DD</td><td>Yes</td></tr><tr><td>The letter of approval(s) at Request for Registration is available from all identified Parties in the POA DD</td><td>Yes</td></tr><tr><td></td><td></td></tr></table> LoA has been submitted So issue is clsoed	Validation Criteria	Yes/No	The letter of approval at GSP of POA DD is available	No	The information in this regard is included in the POA DD	Yes	The letter of approval(s) at Request for Registration is available from all identified Parties in the POA DD	Yes			CAR-01	Ok
Validation Criteria	Yes/No														
The letter of approval at GSP of POA DD is available	No														
The information in this regard is included in the POA DD	Yes														
The letter of approval(s) at Request for Registration is available from all identified Parties in the POA DD	Yes														



Annex 2: Validation Protocol (SSC-CPA DD)

Table 1 –Validation Requirements for Clean Development Mechanism (CDM) Component Project Activities (CPA)

Checklist Question(s)	Ref	MoV*	Validation Assessment	Conclusion									
				Draft	Final								
SECTION A. Description of Project Activity													
A.1. Title of the proposed or registered PoA													
A.1 Is the reference and title of the PoA provided to which this CPA is to be included?.	EB 66 Annex 17	DR	Since the PoA is not registered and this is first specific CPA only title of PoA is provided	OK	OK								
A.2. Title of the CPA													
A.2 Does the Section A.2 of CPA DD contains information as required by Guidance for completing the CPA DD Form?	EB 66 Annex 17	DR	Yes Section A.2 of CPA DD contains information as required by Guidance for completing the CPA DD Form <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The title of the CPA and the unique identification of the CPA</td><td>Yes</td></tr><tr><td>The current version number of the CPA-DD;</td><td>Yes</td></tr><tr><td>The date the CPA-DD was completed (DD/MM/YYYY).</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The title of the CPA and the unique identification of the CPA	Yes	The current version number of the CPA-DD;	Yes	The date the CPA-DD was completed (DD/MM/YYYY).	Yes	Ok	Ok
Validation Criteria	Yes/No												
The title of the CPA and the unique identification of the CPA	Yes												
The current version number of the CPA-DD;	Yes												
The date the CPA-DD was completed (DD/MM/YYYY).	Yes												
A.3. Description of the CPA													
A.3 Is the description of the proposed activity in the CPA DD accurate, complete, and provides an understanding of the proposed CDM project activity?	EB 66 Annex 17	DR, I	The description of the proposed activity is included in section A.3 however CL 06 has been raised for further clarification on technology and capacity of equipment. CL 06 is closed refer Annex 3 for detail.	Pending Site Visit CL-06	ok								
A.1.5 Is all information provided consistent and in compliance with the actual situation or planning?	EB 66 Annex 17	DR, I	The information provided has been checked during site visit and it is found consistent with the actual situation. However CL06 has been raised for further clarification CL 06 is closed refer Annex 3 for detail.	Pending Site Visit CL-06	Ok								
A.1.6 Is all information with respect to project description deemed accurate and complete?	EB 66 Annex 17	DR, I	Subject to closure of CL06 Yes the information provided in final CPA DD is accurate and complete.	CL-06	OK								



A.4. Entity/individual responsible for CPA						
A.4 Does the Section A.4 of CPA DD contains information as required by Guidance for completing the CPA DD Form?	A.4, EB 66 Annex 17	DR	Validation Criteria	Yes/No	Ok	Ok
			Is the Information of CPA implementer included,	Yes		
			Is the CPA implementer a project participant of the PoA, under which the CPA is submitted?	Yes		
A.5. Technologies and/or measures						
A.5.1 Does the CPA DD defines the technologies and measures to be employed and/or implemented by the project activity, including a list of the facilities, systems and equipment that will be installed and/or modified by the project activity?	A.5 of EB 66 Annex 17	DR	The information provided in section A.5 is not in line with EB 66 Annex 17 Hence CAR 07 has been raised.		CAR-07	Ok
			Validation Criteria	Yes/No		
			The age and average lifetime of the equipment defined based on manufacturer's specifications and industry standards	No Yes		
			Existing and forecast installed capacities, load factors and efficiencies defined	No Yes		
			Monitoring equipments and locations are defined.	No Yes		
			Energy and mass flows and balances of system and equipments included in the project activity	Yes		
			Is description complete with regards to as how the same types and levels of services provided by the project activity would have been provided in the baseline scenario	Yes		
			Information has been included in revised CPA DD, CAR 07 is closed			
A.5.2 Does the CPA DD contains list of equipments in the scenario existing prior the implementation of PA and/or the baseline scenario?	A.5 of EB 66 Annex 17	DR	Information on the existing scenario is not included; Hence CAR 07 is raised.		CAR-07	OK
			Validation Criteria	Yes/No		
			Facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity	No Yes		
			Facilities, systems and equipment in the baseline scenario, as established in section D.4 of CPA DD.	No Yes		



			Information has been included in revised CPA DD, CAR 07 is closed		
A.5.3 Is the existing scenario prior to the implementation of the project activity same as baseline scenario identified in Section D.4 of CPA DD?	A.5 of 66 Annex 17	DR	Yes existing scenario prior to the implementation of the project activity is same as baseline scenario identified in Section D.4 of CPA DD	Ok	OK
A.6. Party(ies)					
A.6.1. Is the table required for the indication of Party(ies) and CPA implementer(s) correctly applied?	Para 33 of PS A.6 of EB 66 Annex 17	DR	No table required for the indication of Party(ies) and CPA implementer(s) is not correctly applied. CAR 07 is raised Correction has been made.	CAR-07	Ok
A.6.2. Is all information provided in consistency with details provided by further chapters of the CPA DD (in particular Appendix 1)?	A.6 of EB 66 Annex 17	DR	Subject to closure of CAR-07 Yes all information provided in consistency with details provided by further chapters of the CPA DD	CAR-07	OK
A.7. Geographic reference or other means of identification					
A.7.1 Is the Proposed CPA is stationary or Mobile?	A.7 of EB 66 Annex 17	DR,SV	The proposed CPA is a stationary CPA and includes installation of a Biomass Gasifier and engines for power generation.	OK	OK
A.7.2 If the proposed CPA is stationary the Region/State/Province etc., correctly indicated in the CPA DD?	A.7 of EB 66 Annex 17	DR,SV	Yes CPA is located in Bihar State of India.	Ok	OK
A.7.3 Is the City/Town/Community etc., correctly indicated in the CPA DD?	A.7 of EB 66 Annex 17	DR,SV	Yes City/Town/Community etc., correctly indicated in the CPA DD	Ok	OK



A.7.4 Is the Physical/Geographical location correctly indicated in the CPA DD?	A.7 of CPA DD	DR,SV	Geographical coordinates are not included in CPA DD <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Information allow the unique identification of the proposed project activity i.e., geographical coordinates</td><td>No Yes</td></tr><tr><td>Is map included in the CPA DD?</td><td>No Yes</td></tr><tr><td>Is the description of location is limited to one page?</td><td>Yes</td></tr></table> Information has been included in revised CPA DD, CAR 07 is closed	Validation Criteria	Yes/No	Information allow the unique identification of the proposed project activity i.e., geographical coordinates	No Yes	Is map included in the CPA DD?	No Yes	Is the description of location is limited to one page?	Yes	CAR-07	Ok
Validation Criteria	Yes/No												
Information allow the unique identification of the proposed project activity i.e., geographical coordinates	No Yes												
Is map included in the CPA DD?	No Yes												
Is the description of location is limited to one page?	Yes												
A.8 Duration of the CPA													
A.8.0 Does the Section A.8 of CPA DD contains information as required by Guidance for completing the CPA DD Form?	A.8 of EB 66 Annex 17	DR	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Is the start date indicated (DD/MM/YYYY)</td><td>Yes</td></tr><tr><td>Is it after the start date of PoA DD</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	Is the start date indicated (DD/MM/YYYY)	Yes	Is it after the start date of PoA DD	Yes	Ok	OK		
Validation Criteria	Yes/No												
Is the start date indicated (DD/MM/YYYY)	Yes												
Is it after the start date of PoA DD	Yes												
A.8.2 Is it described that how the start date is determined?	A.8 of EB 66 Annex 17	DR, I	Yes it is described that expected date of first release of work order/start of the implementation.	Ok	Ok								
A.8.2 Is the expected operational lifetime of the CPA stated in years and months?	A.8 of EB 66 Annex 17	DR	Yes expected operational lifetime of the CPA is stated in years and months	Ok	Ok								
A.9 Choice of the crediting period and related information													
A.9.0 Is the type of crediting period chosen stated (fixed or renewable).	A.9 of EB 66 Annex 17	DR	No type of crediting period chosen is not stated It is stated in revised CPA DD (fixed)	CAR-07	Ok								
A.9.1 Is he expected start date of the crediting period of the CPA stated? (DD/MM/YYYY).	A.9 of EB 66 Annex 17	DR	Yes it is indicated as Date of registration of the PoA or date of commissioning of the first generation unit under the CPA (whichever is later)	Ok	Ok								



A.9.2 Does the Section A.9.2 of CPA DD contains information as required by Guidance for completing the CPA DD Form	A.9 of EB 66 Annex 17	DR	<table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Is Length of crediting period indicated?</td><td>Yes</td></tr><tr><td>In case a renewable crediting period is chosen, the length of the first crediting period and the number of renewal periods indicated?</td><td>NA</td></tr><tr><td>Is it ensured that the total renewal periods do not exceed the PoA validity period?</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	Is Length of crediting period indicated?	Yes	In case a renewable crediting period is chosen, the length of the first crediting period and the number of renewal periods indicated?	NA	Is it ensured that the total renewal periods do not exceed the PoA validity period?	Yes	OK	Ok		
Validation Criteria	Yes/No														
Is Length of crediting period indicated?	Yes														
In case a renewable crediting period is chosen, the length of the first crediting period and the number of renewal periods indicated?	NA														
Is it ensured that the total renewal periods do not exceed the PoA validity period?	Yes														
A.10 Estimated amount of GHG emission reductions															
A.10.1. Is the table to indicate the emission reductions over the crediting period included and correct?	A.10 of EB 66 Annex 17	DR	<table><tr><td colspan="2">Yes the table to indicate the emission reductions over the crediting period is included and correct</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The table is completely and correctly filled</td><td>Yes</td></tr><tr><td>The annual average emission reductions are consistent with the other places in the CPA DD.</td><td>Yes</td></tr><tr><td>The information in this section is consistent with other sections (e.g. crediting period etc.)</td><td>Yes</td></tr></table>	Yes the table to indicate the emission reductions over the crediting period is included and correct		Validation Criteria	Yes/No	The table is completely and correctly filled	Yes	The annual average emission reductions are consistent with the other places in the CPA DD.	Yes	The information in this section is consistent with other sections (e.g. crediting period etc.)	Yes	Ok	Ok
Yes the table to indicate the emission reductions over the crediting period is included and correct															
Validation Criteria	Yes/No														
The table is completely and correctly filled	Yes														
The annual average emission reductions are consistent with the other places in the CPA DD.	Yes														
The information in this section is consistent with other sections (e.g. crediting period etc.)	Yes														
A.11. Public funding of project activity															
A.11.1.Does the information on public funding provided conform to the actual situation or planning as presented by the project participant(s)?	A.11 of EB 66 Annex 17	DR, I	<table><tr><td colspan="2">No public funding is involved in development of project activity.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Does project receives any public funding?</td><td>No</td></tr><tr><td>Is the funding from Parties included in Annex I to Kyoto Protocol?</td><td>No</td></tr><tr><td>If yes, information regarding public funding is provided?</td><td>NA</td></tr></table> <p>However CL 11 is raised for a declaration of no public funding Declaration has been submitted by CPA implementer.</p>	No public funding is involved in development of project activity.		Validation Criteria	Yes/No	Does project receives any public funding?	No	Is the funding from Parties included in Annex I to Kyoto Protocol?	No	If yes, information regarding public funding is provided?	NA	CL 11	Ok
No public funding is involved in development of project activity.															
Validation Criteria	Yes/No														
Does project receives any public funding?	No														
Is the funding from Parties included in Annex I to Kyoto Protocol?	No														
If yes, information regarding public funding is provided?	NA														
A.11.2.Is all information provided consistent with details provided by further chapters of the CPA DD (in particular Appendix 2)?	A.11 of EB 66 Annex 17	DR, I	Yes information provided is consistent with details provided by further chapters of the CPA DD	OK	OK										



A.11.3 In case of public funding from Annex I Parties, is it confirmed that such funding does not result in a diversion of official development assistance?	Para 34 of PS	DR	Not Applicable																	
A.12. Debundling of small-scale component project activities																				
A.12.1. Is it confirmed that proposed project activity is not a debundled component of large scale project activities?	A.12 of CPA DD	DR, SV	<div>Yes it is confirmed that proposed project activity is not a de bundled component of large scale project activities.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Is there any registered CDM, including requested for registration, project activity with the same PPs?</td><td>No</td></tr><tr><td>Is it in the same project category and technology/measure?</td><td>No</td></tr><tr><td>Is it registered, including requested for registration, within previous 2 years</td><td>No</td></tr><tr><td>Is the project boundary within 1 km of the project boundary of proposed small scale activity at the closest point?</td><td>No</td></tr><tr><td>If the answer to above questions is yes but it is confirmed the combined capacity of previous projects is within the SSC thresholds for that type? (else write not applicable)</td><td>NA</td></tr><tr><td>Is the assessment complies with the latest version of “Guidelines on assessment of de-bundling for SSC project activities”</td><td>Yes</td></tr></table>		Validation Criteria	Yes/No	Is there any registered CDM, including requested for registration, project activity with the same PPs?	No	Is it in the same project category and technology/measure?	No	Is it registered, including requested for registration, within previous 2 years	No	Is the project boundary within 1 km of the project boundary of proposed small scale activity at the closest point?	No	If the answer to above questions is yes but it is confirmed the combined capacity of previous projects is within the SSC thresholds for that type? (else write not applicable)	NA	Is the assessment complies with the latest version of “Guidelines on assessment of de-bundling for SSC project activities”	Yes	Ok	OK
Validation Criteria	Yes/No																			
Is there any registered CDM, including requested for registration, project activity with the same PPs?	No																			
Is it in the same project category and technology/measure?	No																			
Is it registered, including requested for registration, within previous 2 years	No																			
Is the project boundary within 1 km of the project boundary of proposed small scale activity at the closest point?	No																			
If the answer to above questions is yes but it is confirmed the combined capacity of previous projects is within the SSC thresholds for that type? (else write not applicable)	NA																			
Is the assessment complies with the latest version of “Guidelines on assessment of de-bundling for SSC project activities”	Yes																			
A.12.2. Is it confirmed that requirements related to Type I projects have been assessed appropriately?	A.12 of CPA DD	DR, I	<div>The proposed project activity is installation of 32 KW capacity biomass Gasifier and there is no registered project or request of registration from the same PP. It is confirmed from UNFCCC website.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>It has been confirmed how Type I projects are not debundled component of large scale project activity in case two or more projects are taking place within 1 km by the same project participants</td><td>Yes</td></tr></table>		Validation Criteria	Yes/No	It has been confirmed how Type I projects are not debundled component of large scale project activity in case two or more projects are taking place within 1 km by the same project participants	Yes	Ok	Ok										
Validation Criteria	Yes/No																			
It has been confirmed how Type I projects are not debundled component of large scale project activity in case two or more projects are taking place within 1 km by the same project participants	Yes																			
A.12.3. Is it confirmed that requirements related to transport projects have been assessed appropriately?	A.12 of CPA DD	DR	The proposed CPA is not a transport project activity.		Ok	Ok														



A.13. Confirmation for CPA											
A.13.1. Is it confirmed that the CPA is neither registered as an individual CDM project activity nor is part of another registered PoA.	A.13 of EB 66 Annex 17	DR	Yes a confirmation has been included in CPA DD.	Ok	OK						
SECTION B Environmental analysis											
B.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	B.1 of CPA DD Para 63 of PS	DR, I	No environmental impact analysis has been carried out.	Ok	Ok						
B.1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA)?	B.1 of CPA DD Para 64 of PS Para 134, 135 of VVS	DR	As per the prevailing host party laws, (the Schedule 1 of Ministry of Environment and Forests (Government of India) notification number S.O.3067 dated 1/12/2009.no EIA is required for this project activity.	Ok	Ok						
SECTION C. Local stakeholder comments											
C.1.1. Have local stakeholders been invited by the PPs to comment on the proposed CDM project activity prior to the publication of the CPA DD on the UNFCCC web	Para 69 of PS	DR	Yes a local stake holder meeting for the proposed CPA is conducted. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholder consultation process is done prior to webhosting of the CPA DD for GSP</td><td>Yes</td></tr><tr><td></td><td></td></tr></table>	Validation Criteria	Yes/No	The local stakeholder consultation process is done prior to webhosting of the CPA DD for GSP	Yes			Ok	OK
Validation Criteria	Yes/No										
The local stakeholder consultation process is done prior to webhosting of the CPA DD for GSP	Yes										
C.1.2. Have appropriate media been used to invite comments by local stakeholders?	Para 65, 66 of PS	DR	An advertisement was published in the local newspaper daily Aaj on 10/11/2011, inviting the local stakeholders to different meeting venues <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholders were identified appropriately</td><td>Yes</td></tr><tr><td>The local stakeholders were invited in reasonable time</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The local stakeholders were identified appropriately	Yes	The local stakeholders were invited in reasonable time	Yes	Ok	OK
Validation Criteria	Yes/No										
The local stakeholders were identified appropriately	Yes										
The local stakeholders were invited in reasonable time	Yes										



			<table><tr><td>The local stakeholders were invited using appropriate medium</td><td>Yes</td></tr></table>	The local stakeholders were invited using appropriate medium	Yes														
The local stakeholders were invited using appropriate medium	Yes																		
C.1.3. Is the undertaken stakeholder process described in a complete and transparent manner?	Para 67, 68 of PS 139 of VVS	DR	<table><tr><td colspan="2">Yes undertaken stakeholder process is described in a complete and transparent manner in section C.2 of CPA DD</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The local stakeholders were informed appropriately about the project activity to comment</td><td>Yes</td></tr><tr><td>Summary of comments as included in the CPA DD is complete</td><td>Yes</td></tr><tr><td></td><td></td></tr></table>	Yes undertaken stakeholder process is described in a complete and transparent manner in section C.2 of CPA DD		Validation Criteria	Yes/No	The local stakeholders were informed appropriately about the project activity to comment	Yes	Summary of comments as included in the CPA DD is complete	Yes			OK	OK				
Yes undertaken stakeholder process is described in a complete and transparent manner in section C.2 of CPA DD																			
Validation Criteria	Yes/No																		
The local stakeholders were informed appropriately about the project activity to comment	Yes																		
Summary of comments as included in the CPA DD is complete	Yes																		
C.1.4. Has due account been taken of any stakeholder comments received?	Para 139, 140 of VVS Section C of CPA DD	DR, I	<table><tr><td colspan="2">No negative comment has been received .</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The comments received from local stakeholders have been considered for due account</td><td>Yes</td></tr><tr><td>The due account taken of all comments is adequate</td><td>yes</td></tr><tr><td>The information contained in CPA DD with regard to local stakeholder consultation is adequate.</td><td>yes</td></tr></table>	No negative comment has been received .		Validation Criteria	Yes/No	The comments received from local stakeholders have been considered for due account	Yes	The due account taken of all comments is adequate	yes	The information contained in CPA DD with regard to local stakeholder consultation is adequate.	yes	OK	OK				
No negative comment has been received .																			
Validation Criteria	Yes/No																		
The comments received from local stakeholders have been considered for due account	Yes																		
The due account taken of all comments is adequate	yes																		
The information contained in CPA DD with regard to local stakeholder consultation is adequate.	yes																		
SECTION D. Eligibility of CPA and Estimation of emissions reductions																			
D.1 Title and reference of the approved baseline and monitoring methodology(ies) selected:																			
D.1.1 Is the reference to the selected methodology consistent with the CDM website?	D.1 of CPA DD Para 35 of PS	DR	<table><tr><td colspan="2">Yes AMS I.L has been used and reference has been included.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The number of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The title of the selected methodology is correct</td><td>Yes</td></tr><tr><td>The version of the selected methodology is correct</td><td>Ys</td></tr><tr><td colspan="2">It has also been confirmed from http://cdm.unfccc.int/methodologies/PAmethodologies/approved</td></tr><tr><td colspan="2"></td></tr></table>	Yes AMS I.L has been used and reference has been included.		Validation Criteria	Yes/No	The number of the selected methodology is correct	Yes	The title of the selected methodology is correct	Yes	The version of the selected methodology is correct	Ys	It has also been confirmed from http://cdm.unfccc.int/methodologies/PAmethodologies/approved				Ok	Ok
Yes AMS I.L has been used and reference has been included.																			
Validation Criteria	Yes/No																		
The number of the selected methodology is correct	Yes																		
The title of the selected methodology is correct	Yes																		
The version of the selected methodology is correct	Ys																		
It has also been confirmed from http://cdm.unfccc.int/methodologies/PAmethodologies/approved																			
D.1.2 Is the reference to any tools, standards or guidelines as required by the methodology provided?	Para 36 of PS	DR	<table><tr><td colspan="2">Yes the reference to tools and standard required by methodology provided.</td></tr><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The title of tools/guidelines/standards is correct</td><td>Yes</td></tr><tr><td>The version of tools/guidelines/standards is correct</td><td>Yes</td></tr><tr><td colspan="2"></td></tr></table>	Yes the reference to tools and standard required by methodology provided.		Validation Criteria	Yes/No	The title of tools/guidelines/standards is correct	Yes	The version of tools/guidelines/standards is correct	Yes			Ok	Ok				
Yes the reference to tools and standard required by methodology provided.																			
Validation Criteria	Yes/No																		
The title of tools/guidelines/standards is correct	Yes																		
The version of tools/guidelines/standards is correct	Yes																		



D.1.3 Is the selected methodology and referenced tools/standards/guidances are valid at the time of request for registration?	Para 70-71, 75 VVS	DR	Yes latest valid version has been referred. <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The selected methodology is valid at request for registration</td><td>Yes</td></tr><tr><td>The reference tools/guidelines/standards/EB decision are applied correctly</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The selected methodology is valid at request for registration	Yes	The reference tools/guidelines/standards/EB decision are applied correctly	Yes	Ok	Ok								
Validation Criteria	Yes/No																		
The selected methodology is valid at request for registration	Yes																		
The reference tools/guidelines/standards/EB decision are applied correctly	Yes																		
D.2. Application of methodology(ies)																			
D.2.1 Does the CPA DD contains information as why the selected approved methodology applicable to the project activity?	Para 38 of PS D.2 of CPA DD	DR	Yes a justification has been provided against each applicability criteria in section D.2 of CPA DD <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>All applicability conditions of selected methodology included</td><td>Yes</td></tr><tr><td>Applicability conditions are consistent with the selected methodology(ies)</td><td>Yes</td></tr><tr><td>Justification for each applicability conditions is provided</td><td>Yes</td></tr><tr><td>All applicability conditions of referred tools/standards/guidelines included</td><td>Yes</td></tr><tr><td>Applicability conditions are consistent with the referred tools/standards/guidelines</td><td>Yes</td></tr><tr><td>Justification for each applicability conditions is provided</td><td>yes</td></tr></table>	Validation Criteria	Yes/No	All applicability conditions of selected methodology included	Yes	Applicability conditions are consistent with the selected methodology(ies)	Yes	Justification for each applicability conditions is provided	Yes	All applicability conditions of referred tools/standards/guidelines included	Yes	Applicability conditions are consistent with the referred tools/standards/guidelines	Yes	Justification for each applicability conditions is provided	yes	Ok	OK
Validation Criteria	Yes/No																		
All applicability conditions of selected methodology included	Yes																		
Applicability conditions are consistent with the selected methodology(ies)	Yes																		
Justification for each applicability conditions is provided	Yes																		
All applicability conditions of referred tools/standards/guidelines included	Yes																		
Applicability conditions are consistent with the referred tools/standards/guidelines	Yes																		
Justification for each applicability conditions is provided	yes																		
D.2.2Is the justification provided in the CPA DD based correctly quoted and interpreted?	Para 76 of VVS D.2 of CPA DD	DR	Justification is provided in CPA DD, however few non conformities has been observed and hence CAR 08 has been raised <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>Justification against each applicability conditions is critically explained/substantiated inB.2 of CPA DD</td><td>No Yes</td></tr><tr><td>Is explanation of documentation used consistent with Appendix 3 of CPA DD, if used</td><td>No Yes</td></tr><tr><td>The information in CPA DD is compared/cross checked with other sources, if available, using local expertise and sectoral expert</td><td>Yes</td></tr></table> Correction has been made and justification for applicability is also revised, Hence CAR 08 is closed	Validation Criteria	Yes/No	Justification against each applicability conditions is critically explained/substantiated inB.2 of CPA DD	No Yes	Is explanation of documentation used consistent with Appendix 3 of CPA DD, if used	No Yes	The information in CPA DD is compared/cross checked with other sources, if available, using local expertise and sectoral expert	Yes	CAR-08	OK						
Validation Criteria	Yes/No																		
Justification against each applicability conditions is critically explained/substantiated inB.2 of CPA DD	No Yes																		
Is explanation of documentation used consistent with Appendix 3 of CPA DD, if used	No Yes																		
The information in CPA DD is compared/cross checked with other sources, if available, using local expertise and sectoral expert	Yes																		
D.2.3 Is the applicability of the selected methodology satisfied/met?	Para 76 of VVS Para 78, 81 of	DR	Subject to closure of CAR-08 <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The selected methodology is applicable to project activity</td><td>Yes</td></tr><tr><td>Is there any deviation from methodology found or applied</td><td>No</td></tr></table>	Validation Criteria	Yes/No	The selected methodology is applicable to project activity	Yes	Is there any deviation from methodology found or applied	No	CAR-08	Ok								
Validation Criteria	Yes/No																		
The selected methodology is applicable to project activity	Yes																		
Is there any deviation from methodology found or applied	No																		



	VVS		Is there any clarification that has been sought or applied in the project activity	No		
			Corrections has been made hence CAR 08 is closed.			
D.2.4Is it confirmed that the project activity meets the SSC eligibility requirements?	Para 81 of PS D.2 of CPA DD Para 150 of VVS	DR	Yes the CPA includes installation of a 32 KW capacity gas engines which is lower than small scale threshold of 15MW for electricity generation for Type 1 project activity.		Ok	OK
			Validation Criteria	Yes/No		
			The CPA DD contains complete and accurate description of project type(s) i.e., Type I, II and/or III	Yes		
			If Type I project activity, the maximum output capacity does not exceed 15 MW(e) and such capacity of generator in case turbine-generator systems are used (more electrical or mechanical systems).	Yes		
			If Type I project activity, the maximum capacity does not exceed 45 MWth for biomass, biofuels and biogas projects (for thermal systems)	NA		
			If case of thermal application of solar energy projects the maximum output does not exceed 64,000 m2 for flat plate or evacuated tubular collector.	NA		
			If Type II project activity, the maximum output capacity does not exceed 60 GWh (e) per year or an appropriate equivalent e.g. 180 GWh (th) per year	NA		
			If Type III project activity, the GHG emission reductions does not exceed 60,000 tCO2e per year in any year of the crediting period	NA		
			If project activity uses more than one component, it is confirmed that each component is within the thresholds for each type	Yes		
			The project activity confirms to the requirements of latest version of "General guidelines to SSC CDM methodologies"	Yes		
D.3. Sources and GHGs						



D.3.1 Does the project boundary include the physical delineation of the proposed CPA?	D.3 of CPA DD	DR	Yes the project boundary includes the physical delineation of the proposed CPA.	Ok	Ok
			Validation Criteria		
			The flow diagram of the project boundary included		
			The flow diagram consistent with the information in section A.3 of CPA DD		
			The flow diagram indicates the GHG sources included in the project boundary		
			The data and parameters to be monitored are indicated		
			The project boundary information consistent with situation observed during physical site visit, if conducted		
D.3.2 Are all emission sources and gases related to the baseline scenario, project scenario clearly identified and described in project boundary in a complete and transparent manner?	Para 40 of PS D.3 of CPA DD	DR, I	Yes all emission sources and gases related to the baseline scenario, project scenario are clearly identified and described in project boundary in a complete and transparent manner.	Ok	OK
			Validation Criteria		
			The table included for GHG sources included		
			The inclusion/exclusion is justified for GHG sources in the CPA DD		
D.3.3 Is the CPA boundary consistent with the observations made during site visit.	Para 83, 84 of VVS	DR, I	It is confirmed during site visit boundary is consistently mentioned in CPA DD.	Pending Site-visit	Ok
			Validation Criteria		
			The project boundary is based on objective evidences		
			The project boundary as defined in the CPA DD is consistent with the observation made during site visit		
			The inclusion/exclusion of the GHG sources is based on objective evidences, wherever possible		
D.3.4. Are there emission sources that will be affected by the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology?	Para 87 of VVS	DR, I	No there is no emission source which is expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology	Ok	OK



D.4. Description of baseline scenario							
D.4.1. Does the CPA DD discuss the identification of the most likely baseline scenario? Does the CPA DD follow the steps to determine the baseline scenario required by the methodology/tool and has the application of the tools as per methodology been consulted, if the Tool(s) are required by the methodology?	Para 89 of VVS	DR	Yes the identification of the most likely baseline scenario is discussed in CPA DD. There is a fixed baseline scenario as per methodology AMS I. L and it is appropriately justified by PP.		Ok	OK	
			Validation Criteria				Yes/No
			The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied?				Yes
			If the selected methodology requires the use of tools to establish the baseline scenario, the specific guidance in the methodology supersedes the corresponding requirements of the tool.				NA
D.4.2. Are all potential realistic and credible alternative scenarios listed in the methodology considered in identification of the most reasonable baseline scenario? Are all scenarios reasonable in the con-text of the proposed CDM project and no reasonable alternative scenario has been excluded?	Para 90 of VVS	DR	There is a fixed baseline scenario as per methodology AMS I. L and it is appropriately justified by PP.		Ok	Ok	
			Validation Criteria				Yes/No
			The alternative scenarios considered by the project participants and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity.				Yes
			The identified alternative scenarios are appropriate based on financial expertise, local and sectoral knowledge of the assessment team.				Yes
			No alternative scenario has been excluded.				Yes



D.4.3 Is there a verifiable description of the baseline scenario? Does this include a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	Para 91, 92 of VVS	DR, I	<div>There is a fixed baseline scenario as per methodology AMS I. L i.e. Displacement of fossil fuel use, such as in fuel-based lighting systems and stand-alone power generators and it is appropriately justified by PP.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>The information (assumptions, calculations, rationales used in the CPA DD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.</td><td>Yes</td></tr><tr><td>The information (as mentioned above) has been crosschecked from other sources and/or with local expert.</td><td>Yes</td></tr><tr><td>The CPA DD provides a description of the identified baseline scenario, including a description of the technology that would be employed</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	The information (assumptions, calculations, rationales used in the CPA DD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.	Yes	The information (as mentioned above) has been crosschecked from other sources and/or with local expert.	Yes	The CPA DD provides a description of the identified baseline scenario, including a description of the technology that would be employed	Yes	Ok	Ok
Validation Criteria	Yes/No												
The information (assumptions, calculations, rationales used in the CPA DD) used to substantiate the most plausible baseline scenario is quoted and interpreted correctly.	Yes												
The information (as mentioned above) has been crosschecked from other sources and/or with local expert.	Yes												
The CPA DD provides a description of the identified baseline scenario, including a description of the technology that would be employed	Yes												
D.4.4. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario, including relevant national and/or sectoral policies and circumstances?	Para 93 of VVS	DR	<div>There is a fixed baseline scenario as per methodology AMS I. L i.e. Displacement of fossil fuel use, such as in fuel-based lighting systems and stand-alone power generators and there is no relevant national and/or sectoral policies and circumstances that prohibit this.</div> <table><tr><td>Validation Criteria</td><td>Yes/No</td></tr><tr><td>All applicable CDM requirements have been taken into account in the identification of the baseline scenario.</td><td>Yes</td></tr><tr><td>The relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector have been considered appropriately</td><td>Yes</td></tr></table>	Validation Criteria	Yes/No	All applicable CDM requirements have been taken into account in the identification of the baseline scenario.	Yes	The relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector have been considered appropriately	Yes	Ok	OK		
Validation Criteria	Yes/No												
All applicable CDM requirements have been taken into account in the identification of the baseline scenario.	Yes												
The relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector have been considered appropriately	Yes												
D.5. Demonstration of eligibility for a CPA													
D.5.1 Is Justification against each applicability conditions is critically explained/substantiated in Section D.5 of CPA DD	D.5 of CPA DD	DR, I	<div>The justification against applicability condition is explained in section D.5 however CAR 09 is raised due to following Non conformities.</div> <div><div>1. Confirmation of sub point iii is not provided in eligibility criterion -1</div><div>2. Provide geographical coordinates for unique identification & as a evidence for geographical boundary in criteria no. 2 & 3.</div><div>3. The end use is not limited to lighting only as observed during site visit which is not in line with eligibility criteria 5.</div><div>4. Justification provided for eligibility criteria 7 is not correct.</div><div>5. In eligibility criterion 12 justification is required that how the CPA complies with MNRE notification.</div></div> <div>The correction action has been taken hence CAR 09 is closed.</div>	CAR-09	Ok								



D.5.2.Does the CPA DD clearly demonstrate the additionality using the approach as specified in the Eligibility criteria and Methodology and by following all the required steps?	D.5 of CPA DD	DR	Yes additionality of proposed CPA is demonstrated using micro scale additionality guidelines and according to eligibility criteria established in PoA.	Ok	OK
			Validation Criteria		
			The discussion on additionality is included in the CPA DD as per the applied methodology and/or tools referred therein		
			The compliance and outcome of each required step in the applied methodology and/or tool is indicated in clear and transparent manner in the CPA DD		
			The method selected to demonstrate additionality (e.g. investment analysis or barrier analysis) is indicated.		
			All data used (variables, parameters, data sources, etc.), how the additionality of the project activity is demonstrated, is transparently included in the CPA DD		
			If investment analysis is used, list all relevant assumptions and parameters used in the analysis is included.		
			The benchmark applied, wherever applied, is clearly indicated.		
			The credible scenarios compared described where cost comparison is used.		
			The barriers are substantiated for key facts, assumptions rationale and credibility in demonstrating additionality.		
			The prior consideration of the CDM in accordance with applicable provisions related to the demonstration of prior consideration of the CDM included.		
B.5.6. If an investment analysis has been used, has it been demonstrated that the proposed project activity is not the most economically or financially attractive alternative, or is not economically or financially feasible, without the revenue from the sale of CERs.	Para 117, 119 of VVS	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK
D.5.3. Is the investment analysis complete and accurate?	Para 120 of VVS	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK



D.5.4. If a benchmark is used, is it confirmed that it is suitable in the context of the project activity?	Para 121 of VVS	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK								
D.5.5. Does the investment analysis rely on the values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activity?	Para 121 of VVS	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK								
D.5.6. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	Para 124, 125, 126 of VVS	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK								
B.5.11. Is the proposed project type be justified as first-of-its kind?	EB 63 Annex 11	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK								
D.5.6. Is the project activity not common practice, unless proposed as first of its kind?	Para 128 of VVS EB 63 Annex 12	DR	Not Applicable, Additionality of project activity is demonstrated using micro scale additionality guidelines.	Ok	OK								
D.5.7. Is it confirmed that the proposed SSC project activity is additional in accordance with CDM requirements?	Para 158 of VVS	DR, I	<div>Yes it is confirmed that the proposed SSC project activity is additional in accordance with CDM requirements. It is demonstrated using Micro scale additionality guidelines.(EB 68, Annex 26)</div> <table><tr><td>Additionality of project activity is demonstrated using micro scale additionality guidelines EB 68 Annex 26 Validation Criteria</td><td>Yes/No</td></tr><tr><td>The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11</td><td>NA</td></tr><tr><td>The type of additionality approach is clearly included in the CPA DD</td><td>Yes</td></tr><tr><td>The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities</td><td>NA</td></tr></table>	Additionality of project activity is demonstrated using micro scale additionality guidelines EB 68 Annex 26 Validation Criteria	Yes/No	The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11	NA	The type of additionality approach is clearly included in the CPA DD	Yes	The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities	NA	Ok	Ok
Additionality of project activity is demonstrated using micro scale additionality guidelines EB 68 Annex 26 Validation Criteria	Yes/No												
The additionality has been demonstrated as per Attachment A to Appendix B of 4/CMP.1, Annex11	NA												
The type of additionality approach is clearly included in the CPA DD	Yes												
The approach confirms to the Non-binding best practice exaples to demonstrate additionality for SSC project activities	NA												



			In case of microscale project activities, it is confirmed that CPA DD complies with the requirements of "Guidelines for demonstrating additionality of microscale project activities"	Yes		
			The additionality has been demonstrated in case of microscale projects as per para 160 of VVS and referenced guidance	Yes		
D.6. Estimation of emission reductions						
D.6.1.Are the steps and equations (Explanation of methodological choices) applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 96 of VVS Section B.6.1 of CPA DD	DR	Yes the steps and equations applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools.		Ok	OK
			Validation Criteria	Yes/No		
			The methods or methodological steps in the selected methodology(ies), for calculating baseline emissions are explained and justified in the CPA DD	Yes		
			The methods or methodological steps in the selected methodology(ies), for calculating project emissions are explained and justified in the CPA DD	Yes		
			The methods or methodological steps in the selected methodology(ies), for calculating leakages are explained and justified in the CPA DD	Yes		
			The equations that will be used in calculating emission reductions are included in the CPA DD	Yes		
			The methodological choices are explained and justified where methodology prescribes the baseline scenarios	Yes		
			The methodological choices are explained and justified where methodology provides different options	Yes		
			The methodological choices are explained and justified where methodology allows different default values	Yes		
			The referred tools by the methodology are applied, explained and choices justified, as appropriate	Yes		



D.6.2. Are the data and parameters fixed ex ante applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 97, 98 of VVS Section B.6.2 of CPA DD	DR	A clarification CL 10 has been raised on what basis the ex ante value has been considered for emission reduction calculation.		CL 10	Ok
			Validation Criteria	Yes/No		
			The data and parameters defined ex ante are complete in the context of the project activity	Yes		
			The data that are calculated using equations provided in the methodology are not included in this section of CPA DD	Yes		
			The table for each data and parameter is correctly filled as required by the guidance to fill CPA DD	Yes		
			The values applied (single or multiple) of each data is included in a single table, as appropriate	Yes		
			The choice of data applied is clearly indicated and justified with reference to the source	No Yes		
			The applied value of the data and parameters, as required in some cases e.g. PLF, is as per the applicable guidance issued by CDM EB	Yes		
			If the data is determined based on measurements methods and procedures, if applicable, the reference to standards used, responsible person/entity that took the measurement, date of measurement and measured results are correctly indicated.	No Yes		
			The purpose of data is clearly indicated in the table	Yes		
			If sampling is allowed by the methodology, it is confirmed that the application is as per the latest version of “Standard for sampling and surveys for CDM PA and PoA”, as appropriate	NA		
			The additional information is included in Appendix 4 of CPA DD	Yes		
			The assumptions and sources used are appropriate, correct and would result in either accurate or otherwise conservative estimate of emission reductions	No Yes		
.Clarification has been provided hence CL 10 is closed.						



D.6.3.Are the steps and equations applied to calculate ex ante calculation of emission reductions in compliance with the requirements of selected baseline and monitoring methodology and referred tools?	Para 97, 98 of VVS Section B.6.3 of CPA DD	DR	Yes the steps and equations applied to calculate ex ante calculation of emission reductions is in compliance with the requirements of selected baseline and monitoring methodology and referred tools. Validation Criteria	Yes/No	Ok	Ok
			The ex ante calculation of emission reductions (BE, PE and LE) is performed transparently in the CPA DD	Yes		
			The values applied are consistent with section D.6.2 and D.7.1 for each specific data and/or parameter	Yes		
			The equations in the applied methodology(ies) and referred tools, as appropriate are correctly applied in reproducible manner in section D.6.3 as sample calculation	Yes		
			The ex ante calculations are explained in reproducible manner in Appendix 4 and/or electronics spreadsheet	Yes		
D.6.4. Is the table to indicate the emission reduction over the crediting period included and correct?	Section B.6.4 of CPA DD	DR	Yes the table to indicate the emission reductions over the crediting period is included and correct Validation Criteria	Yes/No	Ok	OK
			The table is completely and correctly filled	Yes		
			The emission reductions (BE, PE, LE) are consistent with the other places in the CPA DD (D.6.3, Appendix 4 etc.)	Yes		
			The information in this section is consistent with other sections (e.g. crediting period etc.)	Yes		



D.6.5. Are all the steps taken and equations applied to calculate project emissions, baseline emissions and leakage and emission reductions correct and appropriate?	Para 99 of VVS	DR	Subject to closure of CL 10		GL 10	Ok
			Validation Criteria			
			All assumptions and data used by the project participants are listed in the CPA DD, including their references and sources	Yes		
			All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the CPA DD	No Yes		
			All values used in the CPA DD are considered reasonable in the context of the proposed CDM project activity	No Yes		
			The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions	Yes		
			All estimates of the baseline emissions can be replicated using the data and parameter values provided in the CPA DD	Yes		
			The spreadsheet provided is transparent, unprotected and reproducible	Yes		
			Yes the steps taken and equations applied to calculate project emissions, baseline emissions and leakage and emission reductions are correct and appropriate.			
D.7. Application of the monitoring methodology and description of the monitoring plan						
D.7.1. Does the monitoring plan of the CPA DD comply with the approved methodology(ies) and applicable tool(s)?	Para 132(a) of VVS	DR, I	Yes monitoring plan of the CPA DD comply with the approved methodology AMS I L version 1.0. Validation Criteria		Ok	OK
			The list of parameters included in the section B.7.1 of the CPA DD is complete in the context of the project activity with respect to the applied methodology(ies) and applicable tool(s)			
			The description of monitoring plan for each monitored parameter is complies with the requirements of the approved methodology(ies) and applicable tool(s)			
			The table is filled correctly and completely for each parameter to be monitored specifying source and applied value			
			The table specifies the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of			



			<div>periodic measurements, the measurement intervals</div> <div>The QA/QC procedures (calibration procedures and frequency) and purpose of data as required by the approved methodology(ies) and applicable tool(s) are correctly indicated</div> <div>The information in this regard is consistent with Appendix 5 and emission reduction spreadsheet</div>	<div>Yes</div> <div>Yes</div>		
D.7.2. Is the description of the monitoring plan (implementation) feasible in the context of the project activity?	Para 132(b) of VVS	DR, SV	<div>Yes the description of the monitoring plan (implementation) feasible in the context of the project activity.</div> <div>Validation Criteria</div> <div>The monitoring plan described in the CPA DD is feasible within the project design</div> <div>The information in the monitoring plan, in this regard, is confirmed based on the documented procedures, interview, project plan and physical inspection during site visit, as appropriate</div> <div>The QA/QC procedures as included in the CPA DD are sufficient to determine the ex post emission reductions and be verified</div>	<div>Yes/No</div> <div>Yes</div> <div>yes</div> <div>Yes</div>	Pending site Visit	Ok
D.7.3 Is there any sampling approach applied for any parameter to be monitored?	Section B.7.2 of CPA DD	DR	No sampling approach is applied, all the data will be monitored		Ok	Ok
D.7.4. Are the other elements of the monitoring plan completely defined?	Para 56 of PS Section B.7.3 of CPA DD	DR, I	<div>Yes the monitoring plan is completely defined in section D.7.2 of CPA DD.</div> <div>Validation Criteria</div> <div>The operational and management structure (authority and responsibility for registration, monitoring, measurement and reporting) to be put in place to implement the monitoring plan is included</div> <div>The provisions included in CPA DD to ensure that data monitored required for verification and issuance be kept and archived electronically for 2 years after the end of crediting period or the last issuance of CERs, whichever occur later</div> <div>The definitions of responsibilities and institutional arrangements for data collection and archiving included in the CPA DD</div> <div>QA/QC procedures are defined clearly</div>	<div>Yes/No</div> <div>Yes</div> <div>Yes</div> <div>Yes</div> <div>Yes</div>	Pending site visit	OK



			<div>The uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables are included.</div> <div>The information in this regard is consistent with the other sections of the CPA DD viz., Appendix 5</div> <div>The project participant will be able to implement the described monitoring plan</div>	<div>Yes</div> <div>Yes</div> <div>Yes</div>		
SECTION E. Approval and authorization						
E.1.1 Has the approval and authorization is indicated correctly?	Para 70, 71 of PS F of CPA DD	DR	<div>Yes PP has initiated the process of obtaining letter of approval.</div> <div>Validation Criteria</div> <div>The letter of approval at GSP of CPA DD is available</div> <div>The information in this regard is included in the CPA DD</div> <div>The letter of approval(s) at Request for Registration is available from all identified Parties in the CPA DD</div> <div></div> <div>Letter of approval has been submitted by PP.</div>	<div>Yes/No</div> <div>No</div> <div>Yes</div> <div>Yes</div> <div></div>	CAR-01	OK

Annex 3: Detailed Findings

Nature of findings:

Total findings raised	CAR: 07	CL: 06	FAR: 0
------------------------------	----------------	---------------	---------------

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 01	Assessment team	CDM-D-29
Non conformities raised			
Please provide following documents required as per VVS version 2.0 para 38 & 53			
1. The Letter of approval from DNA of Host country & Annex 1 country.			
2. MoC with the name of project participant.			
Project participant response			
1. The letter of approval from the Indian DNA has been applied by the CME of the PoA and the same will be submitted to the DOE as and when received.			
No project participant is involved in the project activity from Annex-I country and hence the LoA from Annex-I country is not required for the proposed PoA. The Section A.4 of the PoA DD and section A.6 of the specific CPA DD has been revised accordingly.			
2. The Modalities of Communication form of ver 01.3 has been submitted as Attachment 2 for DOE's kind reference.			
Documentation Provided as Evidence by Project Participant			
Attachment 2: Modalities of Communication form of ver 01.3			
Information Verified by Lead Assessor		Date of review: 30/07/2012	
Attachment 2: Modalities of Communication form of ver 01.3			
Reasoning for not acceptance or close out			
1. PP has changed the scope of project activity and included solar PV along with Biomass Gasifier so please confirm whether the new scope has been included in the application for LoA submitted to DNA.			
2. An older version of MoC form has been used. PP is requested to use the latest version of MoC form available at UNFCCC site.			
Date of acceptance or non acceptance		Date: 30/07/2012	Status: Open
Project participant response			
1. The PoA DD and CPA DD specific comprising of solar PV and biomass gasification technology as a new scope, has been submitted to the Indian DNA for the host country approval. Also, an undertaking by the PP is being submitted as attachment 8 referring that the same PDD the PCN is submitted to the Indian DNA that has been submitted for validation to the DOE.			
2. The fresh MoC form as per the new template available is being submitted to the DOE as attachment 9 for DOE's kind persual.			
Documentation Provided as Evidence by Project Participant			
1. undertaking by the PP			
2. MOC form version 2.1			
Information Verified by Lead Assessor		Date of review: 30/08/2012	
1. undertaking by the PP			
2. MOC form version 2.1			
Reasoning for not acceptance or close out			



1. PP has provided the undertaking for the documents submitted to Indian DNA. Further details will be verified from LoA. Open		
2. MoC form on the latest template available is provided by PP.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
Project participant response		
The approval letter from the host country is received from the Indian DNA for the project activity reference no. 4/15/2012-CCC dated 22/11/2012 and is submitted to the DOE for its reference.		
Documentation Provided as Evidence by Project Participant		
Host Country Approval dated 22/11/2012		
Information Verified by Lead Assessor	Date of review: 22/11/2012	
Host Country Approval dated 22/11/2012		
Reasoning for not acceptance or close out		
Letter of approval ref no.4/15/2012-CCC dated 22/11/2012 indicating the name of Project Participant and Title of PoA has been submitted by PP. It is also confirmed that the letter of approval is unconditional with respect to 39 (a) to (d) of VVS version 2.0. Hence CAR is closed		
Date of acceptance or non acceptance	Date: 22/11/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 02	Assessment team	CDM-D-29
Non conformities raised			
Please take a corrective action for the following issues:			
1. The end use is not limited to lighting only as observed during site visit which is not in line with eligibility criteria 5. 2. Eligibility criteria (h) & (j) as per EB 65 Annex 3 is not included in the PoA DD. 3. The conditions applied under which eligibility criteria 10 & 11 will be checked are not correct. 4. Please indicate exact paragraph/reference of the notification which is to be followed as defined in eligibility criterion 12. 5. The condition for applicability of methodology and additionality demonstration is not included in eligibility criteria. 6. The version of guidelines used for establishing additionality of microscale project activities is not mentioned in section B.3 of PoA DD			
Project participant response			
1. The eligibility criterion 5 has been revised in the PoA DD as per the actual implementation scenario of the proposed PoA. 2. Eligibility criteria (h) & (j) as per EB 65 Annex 3 has now been included in section B.2 of the PoA DD. 3. The conditions of the eligibility criteria as mentioned section B.2 of the PoA DD has now been corrected. 4. The reference to the eligibility criteria referring to the MNRE guidelines has been provided in section B.2 of the PoA DD. 5. The condition for applicability of methodology and additionality demonstration is included in eligibility criteria. 6. The version of guidelines used for establishing additionality of microscale project activities is has been mentioned in section B.3 of PoA DD			
Documentation Provided as Evidence by Project Participant			
Revised PoA DD version 1.1			
Information Verified by Lead Assessor	Date of review: 30/07/2012		



Revised PoA DD version 1.1		
Reasoning for not acceptance or close out		
<div>1. The eligibility criteria 5 (7 in the revised version 1.1) has been made in line with the actual implementation of the proposed PoA.</div> <div>2. Eligibility criteria (h) & (j) as per EB 65 Annex 3 are not included in section B.2 of the revised PoA DD.</div> <div>3. The conditions of the eligibility criteria as mentioned section B.2 of the PoA DD has been corrected.</div> <div>4. The reference to the eligibility criteria referring to the MNRE guidelines has been provided in section B.2 of the revised PoA DD.</div> <div>5. The condition for applicability of methodology and additionality demonstration is included in eligibility criteria.</div> <div>6. The version of guidelines used for establishing additionality of microscale project activities has been mentioned in section B.3 of revised PoA DD version 1.1</div>		
Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
Project participant response		
3. The eligibility criteria (h) & (j) has been included in section B.2 of the PoA DD as per the requirements of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, annex 3, version 01.0, EB 65.		
Documentation Provided as Evidence by Project Participant		
Revised PoA DD version 1.2		
Information Verified by Lead Assessor	Date of review: 30/08/2012	
Revised PoA DD version 1.2		
Reasoning for not acceptance or close out		
Eligibility criteria (h) & (j) as per EB 65 Annex 3 are included and justification is provided in section B.2 of the revised PoA DD.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 03	Assessment team	CDM-D-29
Non conformities raised			
A corrective action is required for the following issues:			
<ol style="list-style-type: none"> 1. PP has provided the technical details for one specific Gen set whereas it will be using a range of 32-100 KW Gen set. Please provide the details of complete range in section A.6 of PoA DD. 2. An individual meter will be installed for each household as observed during site visit whereas in diagram in section A.6 it is shown that one meter will record the electricity distributed to household/community. 3. The information provided in PoA DD regarding the fuel to be used in the project activity is not consistent. In section A.6 it is mentioned that Rice Husk, wheat husk, sugarcane bagasse, saw dust, mustard stems, corn cobs etc. will be used in project activity whereas in other section only Rice husk considered as fuel. 			
Project participant response			



1. The type of technology to be used in the PoA has been defined in section A.6 of the PoA DD. However, for any particular CPA to be identified and included in the PoA, the technical details (specific type of generator set to be used) of the specific CPA will be clearly mentioned in section A.5 of the CPA DD.
2. The diagram has been revised as per the actual metering plan in section A.6 of the PoA DD.
3. The information provided in the PoA DD regarding the usage of fuel has been made consistent as per the technology/measures represented in section A.6 of the PoA DD.

Documentation Provided as Evidence by Project Participant

Revised PoA DD Version 1.1

Information Verified by Lead Assessor **Date of review: 30/07/2012**

Revised PoA DD version 1.1

Reasoning for not acceptance or close out

1. The type of technology to be used in the PoA has been defined in section A.6 of the PoA DD. The technical details (specific type of generator set to be used) of the specific CPA has been clearly mentioned in section A.5 of the CPA DD. The same has been confirmed from the catalogue provided by the supplier.
2. The diagram has been revised and made in line with the proposed implementation plan discussed during site visit.
3. The information has been made consistent throughout PoA DD and it is clearly stated what type of biomass will be used.
4. Further clarification is required as the range of unit to be installed is not consistent in section A.6, B.1 & B.2 of PoA DD is not consistent.

Date of acceptance or non acceptance **Date: 30/07/2012** **Status: Open**

Project participant response

4. The range of each unit installed in the PoA will be of the capacity from 5-250 kW and the same has been made consistent in section A.6, B.1 & B.2 of the PoA DD.

Documentation Provided as Evidence by Project Participant

Revised PoA DD Version 1.2

Information Verified by Lead Assessor **Date of review: 30/08/2012**

Revised PoA DD Version 1.2

Reasoning for not acceptance or close out

The capacity range of units to be installed is made consistent in A.6, B.1 & B.2 of the PoA DD.

Date of acceptance or non acceptance **Date: 30/08/2012** **Status: Closed**

Date	Type & Number	Raised by	Reference
11/07/2012	CL 04	Assessment team	CDM-D-29
Non conformities raised			
Further clarification is required as information on identified consumer is not consistent throughout the PoA DD & CPA DD. In some sections it is mentioned household/community and in others only household.			
Project participant response			
The information on the identified customer has now been made consistent throughout the PoA DD and CPA DD. The identified customer is households/communities and the same has been made consistent in the PoA DD & CPA DD.			
Documentation Provided as Evidence by Project Participant			
Revised PoA DD and CPA DD version 1.1			
Information Verified by Lead Assessor		Date of review: 30/07/2012	



Revised PoA DD and CPA DD version 1.1		
Reasoning for not acceptance or close out		
The information has been made consistent in the revised version of PoA DD and CPA DD		
Date of acceptance or non acceptance	Date: 30/07/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CL 05	Assessment team	CDM-D-29

Non conformities raised

1. Please provide procedure of training and capacity development of personnel. Also procedures for record keeping, person responsible for the job and Measures for continuous improvements of the PoA management system.
2. In section C of PoA DD the Competence criteria of CPA manager and PoA manager is not defined.
3. Further clarification on EIA is required in section E.1 of PoA DD for inclusions of CPA in future.

Project participant response

1. The Section C of the PoA DD has been revised and the detailed procedure for training and capacity development of personnel. Also procedures for record keeping, person responsible for the job and Measures for continuous improvements of the PoA management system has been provided in the same.
2. The Competence criteria of CPA manager and PoA manager has been defined in section C of the PoA DD.
3. The clarification on EIA under section E.1 of PoA DD for inclusions of CPA in future has now been included.

Documentation Provided as Evidence by Project Participant

Revised PoA DD version 1.1

Information Verified by Lead Assessor	Date of review: 30/07/2012
--	-----------------------------------

Revised PoA DD version 1.1

Reasoning for not acceptance or close out

1. The section c of PoA DD has been appropriately revised however review of competencies & Records of arrangements for training and capacity development for personnel has not been made available to the DOE. (Refer EB 65 annex 3 para 17).
2. The Competence criteria of CPA manager and PoA manager has been defined in section C of the revised PoA DD.
3. The clarification on EIA under section E.1 of PoA DD for inclusions of CPA in future has been included in revised PoA DD.

Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
---	-------------------------	---------------------

Project participant response

1. The training records i.e. the curriculum of the records of arrangements for training and capacity development for personnel is being provided to DOE as attachment 10 for its kind persual.

Documentation Provided as Evidence by Project Participant

Training records

Information Verified by Lead Assessor	Date of review: 30/08/2012
--	-----------------------------------

Training records

Reasoning for not acceptance or close out

Supporting document provided is not relevant. Please refer EB 65 annex 3 para 17 for development and implementation of a management system.

Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
---	-------------------------	---------------------



Project participant response		
PP is submitting a CME management manual as per the requirement of para 17 EB 65 annex 3 for the development and implementation of a management system.		
Documentation Provided as Evidence by Project Participant		
CME management manual		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
CME management manual		
Reasoning for not acceptance or close out		
PP has submitted the management manual complying with the requirement of para 17 EB 65 annex 3. Hence issue is closed		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CL 06	Assessment team	CDM-D-29
Non conformities raised			
Please substantiate the information provided in section A.5 (Table) of CPA DD. Also a clarification is required why a range of 32-100 KW is mentioned for generation unit. Because this CPA has a total capacity of 960 KW and 30 generation units. So based on this information no unit can be bigger than 32 KW.			
Project participant response			
As per the actual implementation plan of the first CPA, CME is installing only one generation unit of capacity 32 kW. The information regarding the same has been revised in section A.5 of the CPA DD.			
Documentation Provided as Evidence by Project Participant			
Revised CPA DD version 1.1			
Information Verified by Lead Assessor		Date of review: 30/07/2012	
Revised CPA DD version 1.1			
Reasoning for not acceptance or close out			
In the revised CPA DD PP has considered only one location and corresponding to that technical details have been provided in section A.5 of CPA DD. PP has voluntarily excluded the 29 location from this CPA. However Further clarification is required on exclusion of these location.			
Date of acceptance or non acceptance		Date: 30/07/2012	Status: Open
Project participant response			
Though during decision making PP had considered 30 locations in the first CPA but during conceptualization, due to some technical & financial limitations, PP has decided to implement only one installation in the first CPA, with respect to this the CPA DD has been revised appropriately.			
Documentation Provided as Evidence by Project Participant			
NA			
Information Verified by Lead Assessor		Date of review: 30/08/2012	
NA			
Reasoning for not acceptance or close out			
Further clarification is required on when & why the decision has been changed & PP needs to provide supportive document for the same. Please provide precise reason for decision change.			
Date of acceptance or non acceptance		Date: 30/08/2012	Status: Open
Project participant response			



PP's decision to implement only one project under CPA-001 was taken on 21/08/2012, for the same PP issued a memorandum to the company's Installation Director stating the problems that could delay the implementation of the project activity such as approvals from the state government agencies for the getting CPA -001 registered under CDM and the document to justify the same is provided to the DOE for its reference.		
Documentation Provided as Evidence by Project Participant		
Memorandum to the company's Installation Director		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
Memorandum to the company's Installation Director		
Reasoning for not acceptance or close out		
In order to avoid delay in PoA registration due to approvals from Govt. agencies for 30 sites PP has considered only one unit in current CPA -001. The decision was taken on 21/08/2012 and A memorandum to the company's Installation Director stating the problems has been submitted. So based on above justification issue has been closed		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 07	Assessment team	CDM-D-29
Non conformities raised			
<div><div>1.</div><div>The information provided in section A.5 is not meeting the requirement of CPA DD filling guidelines. (Refer EB 66 annex 17).</div></div> <div><div>2.</div><div>The information provided for CPA implementer is not consistent in section A.4 & A.6 of CPA DD. Also the table used for providing information is not in line with CPA-DD form version 2.0.</div></div> <div><div>3.</div><div>For unique identification the geographical coordinates of identified location is not provided in section A.7 of CPA DD.</div></div> <div><div>4.</div><div>Type of crediting period chosen is not indicated in section A.9 of CPA DD.</div></div>			
Project participant response			
<div><div>1.</div><div>The information has been revised and has been made inline as per the CPA filling guidelines EB 66 annex 17.</div></div> <div><div>2.</div><div>The information provided for the CPA implementer has been made consistent in section A.4 & A.6 of the CPA DD and table for providing the information has been made in line with the CPA DD form ver 2.0.</div></div> <div><div>3.</div><div>The geographical coordinates of the identified location has now been provided in section A.7 of the CPA DD.</div></div> <div><div>4.</div><div>Fixed crediting period (10 years) has been chosen for the CPA and the same has been indicated in section A.9 of the PoA DD.</div></div>			
Documentation Provided as Evidence by Project Participant			
Revised CPA DD version 1.1			
Information Verified by Lead Assessor		Date of review: 30/07/2012	
Revised CPA DD version 1.1			
Reasoning for not acceptance or close out			
<div><div>1.</div><div>The information provided in section A.5 has not been revised. (Refer EB 66 annex 17).</div></div> <div><div>2.</div><div>The correction has been made and table for providing the information has been made in line with the CPA DD form ver 2.0.</div></div> <div><div>3.</div><div>The geographical coordinates of the identified location has been provided in section A.7 of the revised CPA DD. Same has been cross checked with the coordinates identified during site visit.</div></div> <div><div>4.</div><div>Type of crediting period chosen is indicated in section A.9 of revised CPA DD.</div></div>			

Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
Project participant response		
1. Section A.5 of the CPA DD has been revised appropriately as per the EB 66 annex 17.		
Documentation Provided as Evidence by Project Participant		
Revised CPA DD version 1.1		
Information Verified by Lead Assessor	Date of review: 30/08/2012	
Revised CPA DD version 1.1		
Reasoning for not acceptance or close out		
<ul style="list-style-type: none">Please provide basis for the considered load factor and supporting document for the technical specification of Gasifier mentioned in section A.5.Biomass to be used in CPA are written in a generic form. Please provide biomass to be used in gasifier specifically and only those biomass types should be considered for which a surplus biomass report is provided.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
Project participant response		
<ul style="list-style-type: none">Technical specifications (mentioning the plant load factor of the gasifier used) for the gasifier are submitted to the DOE as attachment 12 for DOE's reference.The type of biomass to be used in the first CPA is described in section A.5 of the CPA DD and to demonstrate the surplus availability of the biomass to be used in the project activity, biomass assessment report provided to the PP by MNRE letter dated 16/03/2011 demonstrating the biomass potential and the surplus availability in the region considered in the 1st CPA is submitted to the DOE as attachment 13 for its reference.		
Documentation Provided as Evidence by Project Participant		
<ul style="list-style-type: none">Technical specifications of GasifierSurplus Biomass availability report		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
<ul style="list-style-type: none">Technical specifications of GasifierSurplus Biomass availability report		
Reasoning for not acceptance or close out		
The surplus biomass availability information submitted was of 2001-2002. Please provide the latest information on biomass availability as per EB 47 Annex 28		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Open
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Open
Project participant response		
To justify the surplus availability of biomass for the CPA-001, a biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune, also available on the website of Department of Energy, Bihar (http://energy.bih.nic.in/docs/RE-PA-AP-Bihar.pdf) is submitted to the DOE. Also, demonstration of 100% surplus availability in district East Champaran (project location) i.e. within 50 km radius of the project location is also submitted.		
Documentation Provided as Evidence by Project Participant		
Biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune, http://energy.bih.nic.in/docs/RE-PA-AP-Bihar.pdf		
Information Verified by Lead Assessor	Date of review: 15/11/2012	
Biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune, http://energy.bih.nic.in/docs/RE-PA-AP-Bihar.pdf		
Reasoning for not acceptance or close out		



It is confirmed from the supporting document provided by PP that there is surplus availability of biomass (rice husk, paddy straw and maize cob) in the region; hence leakage emissions from biomass can be neglected.

Date of acceptance or non acceptance

Date: 15/11/2012

Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 08	Assessment team	CDM-D-29
Non conformities raised			
<div>1. Please substantiate the applicability criterion no. 2 that the identified locations are off grid & criterion no.4 for MNRE guidelines in section D.2 of CPA DD.</div> <div>2. The Justification provided for applicability criterion 6 in section D.2 of CPA DD is not consistent with the eligibility criteria.</div> <div>3. PP has not provided any list of documentary evidence in appendix 3 as mentioned in section D.2 of CPA DD.</div> <div>4. The information provided in section D.3 of CPA DD is not meeting the requirement of small scale CPA DD filling guidelines. (Refer EB 66, Annex 17).</div>			
Project participant response			
<div>1. The applicability criteria no. 2 and criterion no. 4 has been substantiated in section D.2 of the CPA DD.</div> <div>2. The justification provided in the applicability criteria 6 in section D.2 of the CPA DD has been made consistent with the eligibility criteria.</div> <div>3. The line referring to the documentary evidence on appendix 3 in support of the methodology used in section D.2 of the CPA DD has been removed. The detailed application of methodology has been already been explained in section D.2 of the CPA DD.</div> <div>4. Section D.3 has been revised appropriately and has been made in line with the CPA filling guidelines.</div>			
Documentation Provided as Evidence by Project Participant			
Information Verified by Lead Assessor		Date of review: 30/07/2012	
<div>1. Revised CPA DD version 1.1</div> <div>2. http://www.saeindia.org/control/download_file/12~22~2008~12~26~04~pm/051.pdf</div> <div>3. http://indiagovernance.gov.in/download.php?filename=files/renewable-energy.pdf</div> <div>4. http://nedcap.gov.in/PDFs/biomassgasifier.pdf</div>			
Reasoning for not acceptance or close out			
<div>1. The link provided to substantiate the criterion no 2 is not working and for the information provided to substantiate the applicability criterion 4 further clarification is required on surplus biomass availability as it is stated in paragraph 2.1 of the document that “Biomass gasifier based distributed / off grid power systems in rural areas limited to 250 kW installed capacity, which have surplus biomass resources and unmet demand of electricity for interalia lighting, water pumping and microenterprises including telecom towers etc will be supported.”</div> <div>2. The Justification provided for applicability criterion 6 in section D.2 of CPA DD is made consistent with the eligibility criteria.</div> <div>3. The line referring to the documentary evidence on appendix 3 was a typo error and has been removed.</div> <div>4. Section D.3 has been revised appropriately however Proof that the CPA is located within the geographical boundary of the proposed or registered PoA is not provided. (refer EB 66 Annex 17).</div>			

5. Section C of CPA DD has not revised as per changes made in the revised version of CPA DD.		
Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
Project participant response		
1. The link to justify the criterion no.2 has been revised. The project activity is in line with the MNRE guideline dated 1/12/2009, as the project activity is of capacity 32 kW which is less than the capacity as prescribed by MNRE. Also, the biomass assessment has been submitted to MoEF for host country approval, which clearly mentions the surplus availability of the biomass in the region. 4. Land lease documents providing the details of the location as mentioned in the CPA DD is being submitted as attachment-11 substantiating that the CPA is located within the geographic boundary of the proposed PoA.		
Documentation Provided as Evidence by Project Participant		
Attachment 10- Land Lease documents		
Information Verified by Lead Assessor	Date of review: 30/08/2012	
<ul style="list-style-type: none">https://energypedia.info/index.php/Bihar_Energy_Situation		
Reasoning for not acceptance or close out		
1. Information provided has been verified and it has been confirmed that Identified energy consumers do not have access to any electricity distribution system/ network such as a national grid, regional grid before project implementation. It has also been verified from another publically available source http://rggvv.gov.in/rggvv/rggvvportal/electrification_status.jsp that the identified village is not electrified. Same has been further crosschecked during site visit and it is confirmed that there is no source of electricity available. However PP is requested to provide a copy of Surplus Biomass report submitted to MoEF. Open 4 Land lease document dated 16/07/2012 issued by the office of DSRO, Motihari is provided by PP and it is confirmed that CPA is located within the geographic boundary of the proposed PoA.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
Project participant response		
Biomass assessment report is submitted as attachment 13 to demonstrate the surplus availability which is provided to the PP by MNRE by its letter dated 16/03/2011.		
Documentation Provided as Evidence by Project Participant		
Biomass assessment report		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
Biomass assessment report		
Reasoning for not acceptance or close out		
The surplus biomass availability information submitted was of 2001-2002. Please provide the latest information on biomass availability as per EB 47 Annex 28		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Open
Project participant response		
To justify the surplus availability of biomass for the CPA-001, a biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune, also available on the website of Department of Energy, Bihar (http://energy.bih.nic.in/docs/RE-PA-AP-Bihar.pdf) is submitted to the DOE. Also, demonstration of 100% surplus availability in district East Champaran (project location) i.e. within 50 km radius of the project location is also submitted.		
Documentation Provided as Evidence by Project Participant		
Biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune. http://enerav.bih.nic.in/docs/RE-PA-AP-Bihar.pdf		



Information Verified by Lead Assessor	Date of review: 15/11/2012	
Biomass assessment report dated May, 2011 prepared by World Institute of Sustainable Energy, Pune, http://energy.bih.nic.in/docs/RE-PA-AP-Bihar.pdf		
Reasoning for not acceptance or close out		
It is confirmed from the supporting document provided by PP that there is surplus availability of biomass (rice husk, paddy straw and maize cob) in the region; hence leakage emissions from biomass are neglected.		
Date of acceptance or non acceptance	Date: 15/11/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CAR 09	Assessment team	CDM-D-29

Non conformities raised

A corrective action is required for the Justification provided for eligibility criteria in section D.5

1. Confirmation of sub point iii is not provided in eligibility criterion -1
2. Provide geographical coordinates for unique identification & as a evidence for geographical boundary in criteria no. 2 & 3.
3. The end use is not limited to lighting only as observed during site visit which is not in line with eligibility criteria 5.
4. Justification provided for eligibility criteria 7 is not correct.
5. In eligibility criterion 12 justification is required that how the CPA complies with MNRE notification.

Project participant response

1. The confirmation regarding the subpoint iii has now been provided in section D.5 of the CPA DD.
2. The geographical coordinates for the unique identification of the generation unit being installed under the CPA has now been provided in criteria 2 & 3 of the CPA DD.
3. The information on the end use of electricity has been revised to lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps, mobile recharging etc. and also has been made in line with the eligibility criteria 5.
4. The justification provided for eligibility criteria as mentioned in the CPA DD has now been corrected.
5. The justification to the eligibility criteria i.e. how the CPA complies with the technical requirements to the MNRE guidelines has been provided in section D.5 of the CPA DD.

Documentation Provided as Evidence by Project Participant

Information Verified by Lead Assessor	Date of review: 30/07/2012	
Revised CPA DD		
Reasoning for not acceptance or close out		
<div><div>1. The criterion has been revised</div><div>2. The geographical coordinates for the unique identification of the generation unit being installed under the CPA has been provided in criteria 2 & 3 of the CPA DD.</div><div>3. The eligibility criteria has been revised and other usage of electricity permitted by methodology AMS 1.L has been included in the justification.</div><div>4. Please revise the justification and provide specific location where LSC was conducted for the site considered in this CPA.</div><div>5. The justification that how the CPA complies with the technical requirements to the MNRE guidelines is not provided in section D.5 of the CPA DD.</div></div>		
Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
Project participant response		



4. The justification regarding the stakeholder consultation has been provided in section D.5 of the CPA DD. Also the detail for the stakeholder meeting has been provided in section C of the CPA DD.		
5. The technical details for the project activity is described in section A.5 of the CPA DD which complies with the technical requirements of the MNRE guidelines and the same has been included in section D.5 of the CPA DD.		
Documentation Provided as Evidence by Project Participant		
Revised CPA DD version 1.1		
Information Verified by Lead Assessor	Date of review: 30/08/2012	
Revised CPA DD version 1.1		
Reasoning for not acceptance or close out		
4. The justification regarding the stakeholder consultation has been provided in section D.5 of the CPA DD. However information provided in section C is not consistent with other section of CPA DD.		
5. Technical details for the project activity are provided in section A.5 of the CPA DD, which are complying with the MNRE guidelines.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
Project participant response		
4. The information for the stakeholder consultation provided in the CPA DD is made consistent in the revised CPA DD.		
Documentation Provided as Evidence by Project Participant		
Revised CPA DD		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
Revised CPA DD		
Reasoning for not acceptance or close out		
Correction has been made and hence issue is closed		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CL 10	Assessment team	CDM-D-29
Non conformities raised			
Further justification is required that on what basis the following information has been considered for calculation of per household consumption.			
<ul style="list-style-type: none"> • 400 household per unit • 6 hours supply • 30 units in each CPA • 30 W connected at each household 			
Project participant response			

Following is the justification for the information provided in the CPA DD for the estimation of the emission reduction:

- ☐ The total no. of households/unit has been revised to 500 as in the case of specific CPA, each household will be connected to a average load of 45 W and a unit of 32kW can cater the electricity requirement of minimum of 500 households but this is just an estimate for the calculation of the CERs. . However, in actual scenario, the same would be monitored for the estimation of CERs during verification.
- ☐ Daily 6 hours of average supply of electricity has been considered for the estimation of the CERs as HPS plans to deliver the electricity from around 5:00 pm to 12:00 pm i.e. in the night so that the power supplied to each household is enough to turn on 2-3 CFLs which help students to complete their studies for the day. The power is also used to charge mobile phones and to run a television in some households.
- ☐ In the actual scenario, CME wishes to consider only one biomass based gasification generation unit of capacity of 32 kW in the 1st CPA and the CPA DD has been revised accordingly.
- ☐ Minimum (Average Load) load supplied to the households has been revised to 45 W as it would suffice to 2-3 CFLs. However, in the actual scenario the net electricity supplied to the households/communities will be monitored and will be used for the determination of emission reduction calculation.

Documentation Provided as Evidence by Project Participant

Revised CPA DD

Information Verified by Lead Assessor

Date of review: 30/07/2012

Revised CPA DD

Reasoning for not acceptance or close out

The justification for the considered parameter has been provided. It has also been observed during site visit from the commissioned units which are not the part of this PoA. The normal practice is to run the generation unit in the evening to supply power to household/communities. On an average 300 household are connected to each unit. So based on the justification provided and observations during site visit the assumptions are considered appropriate.

However the information is not consistent in appendix 4.

Date of acceptance or non acceptance

Date: 30/07/2012

Status: Open

Project participant response

Appendix 4 has been appropriately revised as per the assumptions considered for emission reduction calculation.

Documentation Provided as Evidence by Project Participant

Revised CPA DD version 1.1

Information Verified by Lead Assessor

Date of review: 30/08/2012

Revised CPA DD version 1.1

Reasoning for not acceptance or close out

Correction has been made in Appendix 4 and information is now consistent with other sections of CPA DD

Date of acceptance or non acceptance

Date: 30/08/2012

Status: Closed

Date	Type & Number	Raised by	Reference
11/07/2012	CL 11	Assessment team	CDM-D-29
Non conformities raised			
Please provide following documents in support of information provided in CPA DD.			
1. Considered start date of CPA DD.			
2. Expected operation life time of equipment.			

3. Confirmation for no Public Funding.		
4. List of generation units already commissioned by HPS.		
5. MoM of Local Stake Holder Meeting.		
Project participant response		
All required pending documents have now been provided to the DOE for its kind persual.		
Documentation Provided as Evidence by Project Participant		
1. Attachment 3- Work order dated 10/07/2012 for the start date of the CPA DD.		
2. Attachment 4-Document to justify the operational lifetime of the equipment.		
3. Attachment 5-Declaration from the CME for not availing any ODA or public funding.		
4. Attachment 6-List of generation units already commissioned by HPS and MNRE sanction letter to substantiate the same.		
5. Attachment 7-MoM of the local stakeholder meeting.		
Information Verified by Lead Assessor	Date of review: 30/07/2012	
1. Attachment 3- Work order dated 10/07/2012 for the start date of the CPA DD.		
2. Attachment 4-Document to justify the operational lifetime of the equipment.		
3. Attachment 5-Declaration from the CME for not availing any ODA or public funding.		
4. Attachment 6-List of generation units already commissioned by HPS and MNRE sanction letter to substantiate the same.		
5. Attachment 7-MoM of the local stakeholder meeting.		
Reasoning for not acceptance or close out		
1. Considered start date of CPA DD.		
2. PP has provided a confirmation from the manufacturers of biomass gasifier and generator for the operational life time of the equipment.		
3. PP has provided the confirmation for not availing any ODA or public funding.		
4. PP has provided a list of plants commissioned or under construction before the start date of PoA and sanction letter from MNRE for subsidy to some of these plants.		
5. PP has provided the MoM of the local stakeholder meeting.		
6. Purchase order of Gasifier to be used in the project activity.		
Date of acceptance or non acceptance	Date: 30/07/2012	Status: Open
Project participant response		
1. The start date for the CPA has been considered as 10/07/2012 and to justify the same the work order to Prakash Diesels Pvt. Ltd is being submitted as attachment 3 for DOEs kind persual.		
Documentation Provided as Evidence by Project Participant		
work order to Prakash Diesels Pvt. Ltd		
Information Verified by Lead Assessor	Date of review: 30/08/2012	
work order to Prakash Diesels Pvt. Ltd		
Reasoning for not acceptance or close out		
The document submitted does not provide clear information. PP is requested to further substantiate the information provided.		
Date of acceptance or non acceptance	Date: 30/08/2012	Status: Open
Project participant response		
The purchase order raised to Prakash Diesels Pvt. Ltd. for the generator set is submitted to justify the start date of the project activity is provided to the DOE. Also, to justify that the CPA implementation only started after the 10/07/2012, the purchase order raised to Ganesh Engineering works is submitted to the DOE dated 20/07/2012 is submitted to the DOE for its reference.		
Documentation Provided as Evidence by Project Participant		



Purchase Order raised to Prakash Diesels Pvt. Ltd		
Purchase order raised to Ganesh Engineering works		
Information Verified by Lead Assessor	Date of review: 10/09/2012	
<ul style="list-style-type: none">Purchase Order raised to Prakash Diesels Pvt. LtdPurchase order raised to Ganesh Engineering works		
Reasoning for not acceptance or close out		
The document provided has been assessed and it is confirmed that no real action has been taken before 10/07/2012 and hence considered start date is appropriate.		
Date of acceptance or non acceptance	Date: 10/09/2012	Status: Closed

Date	Type & Number	Raised by	Reference
30/07/2012	CL 12	Assessment team	CDM-D-29
Non conformities raised			
In the revised PoA DD PP has changed the scope and Solar PV are also included in the generation units. So a clarification is required how the power will be distributed and monitored at household level from the solar as well as hybrid system.			
Project participant response			
PP plans to use solar PV based generation system where energy is either stored in a central battery bank or batteries in the households.			
There are two types of generation models in solar PV technology:			
Solar PV based AC grid system: In this system the solar photovoltaic system are connected to the battery and inverter at the generation end. The inverters shall convert the DC energy produced by array to AC voltage using its MPPT(maximum power point control) control to extract maximum from solar array. The AC output energy of the inverter is then supplied to the facilities as per their requirement.			
Solar PV based DC grid system: In this system the DC power generated from the PV panel is distributed to the facility by the distribution cables. Each facility is equipped with individual battery & inverter which converts the electricity to the AC voltage.			
In both the cases the monitoring of the electricity supplied at each facility which is as per the option 1 of the selected methodology AMS I.L ver 01. Will be done at each individual facility which will monitor the supplied electricity at KWH. The detailed explanation of the monitoring has been provided in section D.7.1 of the CPA DD.			
Documentation Provided as Evidence by Project Participant			
Revised PoA DD			
Information Verified by Lead Assessor		Date of review: 30/08/2012	
Revised PoA DD			
Reasoning for not acceptance or close out			
PP has provided the information on distribution and monitoring of electricity at household level. Two types of generation model will be used to supply electricity to households. The information provided in the revised PoA DD has been assessed and it is accepted.			
Date of acceptance or non acceptance		Date: 30/08/2012	Status: Closed

Date	Type & Number	Raised by	Reference
01/12/2012	CAR 13	TR	CDM-D-35
Non conformities raised			



<ol style="list-style-type: none"> 1. The biomass types applicable in the project are indicated in footnote 6 of the PoA-DD. Is the PoA restricted to the said biomass types? Please clarify and correct (if required).Saw dust was also indicated in the GSP documents. 2. B.6.3 of Part II of PoA-DD: in the calculations of BE, what if the unit sizes are different, what if daily power consumption is varying across locations? It is not clear if connected load considered is. Average 3. How is the methodology criteria regarding end use of energy efficient lightings complied with, in specific CPA? 		
Project participant response		
<ol style="list-style-type: none"> 1. The footnote has been revised appropriately as the specific biomass types will be described in the specific CPAs 2. Correction has been made and average of parameters is indicated in generic CPA. 3. A declaration has been provided by CME that the households/communities will utilize only Compact Fluorescent Lamps (CFLs) or Light emitting diode (LED) Lamps and/or fluorescent lamps for lighting purpose and Further each household will sign an undertakingat the time of connection allotment that it will use CFL only 		
Documentation Provided as Evidence by Project Participant		
<ul style="list-style-type: none"> • Declaration By CME • Format of declaration to be filled by end users. • Revised PoA DD version 1.5 dated 07/12/2012 		
Information Verified by Lead Assessor		Date of review:
<ul style="list-style-type: none"> • Declaration By CME • Format of declaration to be filled by end users • Revised PoA DD version 1.5 dated 07/12/2012 		
Reasoning for not acceptance or close out		
<ol style="list-style-type: none"> 1. The foot note has been revised and a generic information is provided at PoA level. The specific type of biomass will be discussed at CPA level. 2. Correction has been made and average of parameters is indicated in generic CPA. 3. Since the project activity is not commissioned, Declaration provided by CME and the Declaration (format) by end user has been checked and it is confirmed from these documents that Compact Fluorescent Lamps (CFLs) or Light emitting diode (LED) Lamps and/or fluorescent lamps for lighting purpose will be used. It has also been confirmed from other commissioned units during site visit that only CFL were installed for lighting purpose. 		
Date of acceptance or non acceptance	Date: 13/12/2012	Status: Closed



Annex 4: Certificate of Competence

Personnel Name:		Mayank Kumar Jain	
Qualified to work as:			
Team Leader	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input checked="" type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope		Technical Area	
Energy industries (renewable/non-renewable sources)		TA 1.2: Energy generation from renewable energy sources	
Approved by (Manager V & V)		Kaviraj Singh	
Approval date:		12/12/2011	

Personnel Name:		Gagandeep	
Qualified to work as:			
Team Leader	<input type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier (Trainee)	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope		Technical Area	
Energy Industries (renewable/non-renewable sources)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
Approved by (Manager C & T)		Mayank Kumar Jain	
Approval date:		23/02/2012	

Personnel Name:		Madhuri Nanda	
Qualified to work as:			
Team Leader	<input checked="" type="checkbox"/>	Technical Expert	<input type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input checked="" type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope		Technical Area	
Not applicable		Not applicable	
Approved by (Manager C & T)		Mayank Kumar Jain	
Approval date:		04/09/2012	

Personnel Name:		Ashok Kumar Gautam	
Qualified to work as:			
Team Leader	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input checked="" type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope		Technical Area	
Energy industries (renewable/non-renewable sources)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	



Waste handling and disposal	TA 13.1: Waste handling and disposal
Approved by (Manager C & T)	Mayank Kumar Jain
Approval date:	12/12/2011

-oOo-