



SSC POA VALIDATION REPORT

M/s G K ENERGY MARKETERS PVT. LTD

DEVELOPMENT OF PROGRAMMATIC CDM
PROJECT FOR SWH INSTALLATION UNDER
MNRE, UNDP/GEF GLOBAL SOLAR WATER
HEATING MARKET TRANSFORMATION AND
STRENGTHENING INITIATIVES: INDIA
COUNTRY PROGRAMME

Report No: 8000407157 - 12/147

Date: 2012-12-18

TÜV NORD CERT GmbH
JI/CDM Certification Program
Langemarckstraße, 20
45141 Essen, Germany
Phone: +49-201-825-3335
Fax: +49-201-825-3290
www.tuev-nord.de
www.global-warming.de

Validation Report:	Report No. 8000407157 - 12/147	Rev. No. 0	Date of 1st issue: 2012-12-18	Date of this rev. 2012-12-18
Client:	M/s G K Energy Marketers Pvt. Ltd	Client ref.:	Mr. Gopal Kabra	
Project: PoA-DD	Title: Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme	Initial Version: Version 01, 2012-03-14	Final Version Version 04 2012-12-18	
Generic CPA-DD	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme – CPA-XXXX	Version number, DD/MM/YYYY	Version 034 2012-12-18	
Involved Parties	Host party: Government of India	Other involved parties: -		
CME and Project Participants	Involved Entities/ Roles M/s G K Energy Marketers Pvt. Ltd	CME: <input checked="" type="checkbox"/>	Project Participant: <input type="checkbox"/>	
Applied methodology(ies):	Title: AMS-I.J "Solar Water Heating Systems(SWH)"	Version No.: 01	Scope: 01	Approved for PoA: <input checked="" type="checkbox"/>
Validation team / Technical Review and Final Approval	Validation Team: Prabhat Kumar (TL) R S Nikesh (TM) G.Ezhilarasu (TE/TM) Vijay Kumar Machcha (TM)	Technical review: Pasch Sussane	Final approval: Rainer Winter.	
Real Case Details	Expected annual average emission reductions over the first crediting period: 8,832 tCO _{2e}	PoA Duration: 28 years	Expected PoA starting date: 2012-03-17	
Summary	<input checked="" type="checkbox"/> <i>Positive validation opinion</i>		<input type="checkbox"/> <i>Negative validation opinion</i>	
Summary of Validation Opinion:	<p>M/s G K Energy Marketers Pvt. Ltd has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the programme of activities (PoA): "Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board.</p> <p>In the course of the validation 18 Corrective Action Requests (CARs) and 3 Clarification Requests (CLs) for PoA-DD and 1 Corrective Action Request (CARs) for generic CPA-DD were raised and all have been successfully closed. One FAR has been raised for the project.</p> <p>The review of the PoA design documentations and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfillment of the stated criteria.</p> <p>In detail the conclusions can be summarized as follows:</p> <ul style="list-style-type: none"> - The PoA is in line with all relevant host country criteria (India) and all relevant UNFCCC requirements for CDM. Project activity approvals have been obtained from DNA of India, from Ministry of Environment and Forest, Government of India, vide the Letter of Approval (HCA) number 4/10/2012-CCC dated 27 June 2012. - The baseline has been appropriately identified as per the applied methodology. - The PoA additionality is sufficiently justified in the PoA-DD. - The eligibility criteria established for CPA inclusion are deemed appropriate and sufficient. - The monitoring plan is transparent and adequate. - The calculation of the emission factors and the CPA emission reductions is carried out in a transparent and conservative manner. - Information on the local stakeholders consultation by the project participants is sufficiently provided in the PoA-DD. Local stakeholder consultation will be done at CPA-level. - All information has been also consistently applied in the generic CPA-DD form. <p>The conclusions of this report show, that the PoA, as it was described in the project documentations, is in line with all criteria applicable for the validation.</p>			
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Abbreviations

BAU	Business as usual
BIS	Bureau of Indian Standard
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CME	Coordinating and Managing Entity
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
CPA	CDM Programme Activities
CPA-DD	CDM programme Activity Design Document
ETC	Evacuated Tube Collector
FTP	Flat Plate collector
GSCP	Global Stakeholder Consultation Process
HCA	Host Country Approval
POA-DDs	(CDM PoA and CPA) Design Documents
DOE	Designated Operational Entities
DNA	Designated National Authority
EB	CDM Executive Board
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
MNRE	Ministry of New and Renewable Energy
MoEF	Ministry of Environment and Forests.
ODA	Official Development Assistance
PP	Project Participant
PoA	Programme of Activities
PoA-DD	CDM Programme of Activities Design Document
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 OBJECTIVE / SCOPE

The purpose of a PoA validation is to have an independent third party assess the project design. In particular the project's baseline, the monitoring plan (MP), and the project's compliance with

- The requirements set forth in the most recent versions of the CDM Rules, including the requirements of Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1 the subsequent decisions by the CMP, and any relevant documents released by the CDM Executive Board (the "EB") and available on the UNFCCC CDM website at <http://unfccc.int> (the aforementioned requirements together the "CDM Requirements");
- Clean Development Mechanism Validation and Verification Manual (current version 01.2; EB55 Annex 1, esp. para 165 – 168) (the "VVM")
- Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (EB 65, Annex 3)
- Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities (current version 04.1, EB 55 Annex 38) (the "PoA Procedures");
- Procedures for review of erroneous inclusion of a CPA (current version 03, EB 61 Annex 22) (the "CPA Review Procedures")
- Guidance for determining the occurrence of de-bundling under a programme of activities (PoA) (current version 03, EB54 Annex 13) (the "De-bundling Guidance")
- Procedures for approval of the application of multiple methodologies to a programme of activities (current version 01; EB 47 Annex 31) (the "Multi-Meth Approval Procedures");
- General guidelines for sampling and surveys for SSC project activities (current version 01, EB50 Annex 30) (the "Sampling Guidelines")
- Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (current version EB 65, Annex 2), (the "Sampling Guidelines")
- Guidelines on Project Design Documents (PDDs) on <http://cdm.unfccc.int/Reference/Guidclarif/pdd/index.html>
- the host country legislation and sustainability criteria as applicable under the

CDM-related laws and regulations of the country in which the PoA and CPAs are physically located;

are validated in order to confirm that the programme design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders on the quality of the programme and its intended generation of certified emission reductions (CERs).

The validation scope is given as a thorough independent and objective assessment of the programme design, information that are included in the POA-DDs and other relevant supporting documents, to ensure that the proposed CDM programme activity meets all relevant and applicable CDM and PoA criteria.

As per the PoA procedures, TÜV NORD will validate the following documentation as provided by the client:

- a completed Clean Development Mechanism Programme of Activities Design Document Form (the "**PoA-DD**");
- a completed PoA-specific Clean Development Mechanism Program Activity Design Document Form (the "**CPA-DD form**") with generic information relevant to all CPAs (as the "**generic CPA-DD**");
- a completed CDM-CPA-DD which is to be based on the application of the PoA to one real case (the "**real case CPA-DD**"), and
- relevant supporting documents.

TÜV NORD validates the following information provided by the client in the PoA-DD:

- The correct application of the baseline and monitoring methodology (ies) and tools,
 - In cases where more than one approved methodology will be applied to each CPA, confirmation that the application of multiple methodologies has been approved in accordance with "Procedures for approval of the application of multiple methodologies to a programme of activities" (EB 47 annex 31).
- Coordinating/managing entity, host party/ies and PoA Participants
- Geographical boundaries of the PoA including all national and/or sectoral policies and regulations;
- Policy, measure or stated goal of the PoA;
- Confirmation about voluntary action by the coordinating/managing entity;
- The programme's baseline study;
- Demonstration of additionality of the PoA;
- Description of a typical CPA (including technology or measures, baseline and monitoring methodology justification and application, demonstration of additionality, and accounting for leakage);

- Eligibility criteria designed for the inclusion of CPAs in the PoA, including criteria to be used for demonstration of additionality of a CPA;
- Starting date and length of the PoA;
- Operational and management arrangements established by the coordinating/ managing entity for the implementation of the PoA, including
 - A record keeping system for each CPA under the PoA,
 - A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as CDM project activity or as a CPA of another PoA,
 - The provisions to ensure that those operating the CPA are aware and have agreed that their activity is being subscribed to the PoA;
- Monitoring plan for a CPA with record-keeping system;
- Indicators/data to be monitored and reported;
- Statistically sound sampling method to be used for verification;
- Environmental impacts and analysis;
- Stakeholder Consultation Procedure as required under the CDM Rules;
- Public funding;
- Letter(s) of Approval as required under the CDM Rules.

TÜV NORD validates the following information provided by the client in the PoA-Generic CDM-CPA-DD:

- Unique identification of the CPA by location or if applicable by registration code;
- Contact details of persons responsible for each CPA;
- Host party;
- Starting date and duration of the crediting period;
- Eligibility criteria;
- Demonstration of additionality;
- Baseline greenhouse gas emissions;
- Estimated emission reductions;
- Environmental impacts and analysis;
- Stakeholder consultation procedure;
- Confirmation regarding no prior CDM registration or inclusion in another PoA;
- Consistency between CDM-POA-DD and the PoA-Generic CDM-CPA-DD.

TÜV NORD validates the Real-Case CDM-CPA-DD with regard to

- Consistency with the PoA-DD;
- Consistency with the generic CPA-DD;
- Additionality;
- Eligibility criteria fulfillment;
- Emission reduction calculation;

- Monitoring plan;
- Environmental impacts;
- Local stakeholder commenting process.

The information included in the POA-DDs and the supporting documents were reviewed against the requirements as set out by the UNFCCC. The validation team has, based on the requirements in the Validation and Verification Manual^{VVM}, carried out a full assessment of all evidence to assess the compliance of the programme with the key areas as outlined in section V.E. and V.F. of the VVM (version 1.2, EB 55 Annex 1).

The validation is based on the information made available to TÜV NORD JI/CDM CP and on the contract conditions. TÜV NORD JI/CDM CP cannot be held liable by any entity for making its validation opinion based on any false or misleading information supplied to it during the course of validation.

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

2 GHG POA DESCRIPTION

2.1 PoA Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: PoA Characteristics

Item	Data	
PoA title	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme.	
Generic CPA title	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme – CPA-XXXX.	
1 st CPA (real case) title	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme – CPA-0001.	
PoA size	<input type="checkbox"/> Large Scale <input checked="" type="checkbox"/> Small Scale	
Programme Scope (according to UNFCCC sectoral scope numbers for CDM)	<input checked="" type="checkbox"/> 1	Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/> 2	Energy distribution
	<input type="checkbox"/> 3	Energy demand
	<input type="checkbox"/> 4	Manufacturing industries
	<input type="checkbox"/> 5	Chemical industry
	<input type="checkbox"/> 6	Construction
	<input type="checkbox"/> 7	Transport
	<input type="checkbox"/> 8	Mining/Mineral production
	<input type="checkbox"/> 9	Metal production
	<input type="checkbox"/> 10	Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/> 11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/> 12	Solvents use
	<input type="checkbox"/> 13	Waste handling and disposal
	<input type="checkbox"/> 14	Afforestation and Reforestation
	<input type="checkbox"/> 15	Agriculture
Applied Methodology(ies) Title and Version No.	AMS-I.J "Solar Water Heating Systems(SWH)" version.01	
PoA Duration	28 years	
Starting date of the PoA	2012-03-17	
CPA Crediting period	<input type="checkbox"/> Renewable Crediting Period (7 y) <input checked="" type="checkbox"/> Fixed Crediting Period (10 y)	
Start of crediting period of the 1 st (real case) CPA ¹	2013-02-15	
Estimated metric tCO ₂ equivalent reductions of the 1 st CPA over the first crediting period	Annual average	8, 832 tCO _{2e}
	Total estimation over the 1 st crediting period	88,320 tCO _{2e}

¹ As per the final POA-DD

2.2 Involved Parties, Coordinating / managing entity (ies), program participants of the POA and operators of individual CPAs

The following parties to the Kyoto Protocol and project participants are involved in this PoA (Table 2-2-1).

Table 2-2-1: Parties and Project Participants of the PoA

Name of Party Involved ((host) indicates a host party)	Private and/or Public Entity(ies) Project Participants ((CME) indicates the Coordinating and Managing Entity)	Does Party Involved Wish to be Considered as Project Participant (Yes/No)
India	M/s G K Energy Marketers Pvt. Ltd (CME)	No

The CPA operator of the 1st real case CPA is listed in Table 2-2-2.

Table 2-2-2: Operator(s) of individual CPAs

CPA No.	CPA title		Contact details
1.	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme – CPA-0001	M/s G K Energy Marketers Pvt. Ltd	Mr. Gopal Kabra 601, 11-B, Lokmanya Nagar LBS Road, Pune, Maharashtra Tel.: +91 20 24321115

2.3 Programme Boundary and Location

The details of the programme location are given in table 2-3:

Table 2-3-1: Programme Location

No.	Programme Location
Host Country	India
Region(s):	Entire geographical region of India and its union territories.
1 st (real case) CPA Project location address:	Maharashtra, India

2.4 Technical Programme Description

The technical key data are provided in table 2-4 below

Table 2-4: Technical data of one unit of the 1st CPA

Parameter	Value
Manufacturer	MNRE approved Manufacture.
Type/Model	Evacuated tube collector

Parameter	Value
Heating Capacity	0.125 m ³ per day (125 LPD) (water)
Output	0.125 m ³ per day at 80/70 degree centigrade.
Area	1.5 m ²

Parameter	Value
Manufacturer	BIS approved Manufacture.
Type/Model	Flat plate collector
Heating Capacity	0.100 m ³ per day (125 LPD) (water)
Output	0.100 m ³ per day at 80/70 degree centigrade.
Area	2 m ²

The technical specifications above are for the base models and can deviate depending upon the site conditions.

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the PoA consists of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the following project documents POA-DDs
 - the PoA-DD
 - the Generic CPA-DD
 - the Real case CPA-DD
- A desk review of all abovementioned POA-DDs^{/PDDs/} submitted by the client and additional supporting documents with the use of customized validation protocol^{/CPM/} according to the Validation and Verification Manual^{/VVM/}, and all PoA related regulations^{/POAR/}
- Validation planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation.

The sequence of the validation is given in the table 3-1 below:

Table 3-1: Validation sequence

Topic	Time
Assignment of validation	2012-03-08
POA-DD and CPA-DDs global stakeholder commenting period	2012-03-17 to 2012-04-15
On-site visit	2012-04-18 to 2012-04-20
Draft reporting finalized	2012-04-20
Final reporting finalized	2012-12-18
Technical review on final reporting finalized	2012-12-18

3.2 Contract review

To assure that

- the PoA falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements,

a contract review was carried out before the contract was signed.

3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consistent of one team leader and 2 additional team members, were appointed. Furthermore also the personnel for the technical review and the final approval were determined.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Prabhat Kumar	TUV India Private Limited	TL	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	G. Ezhilarasu	TUV India Private Limited	TE/ TM ^{A)}	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	R S Nikesh	TUV India Private Limited	TM ^{A)}	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Vijay Kumar Machcha	TUV India Private Limited	TM ^{A)}	A	<input type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Susanne Pasch	TUV NORD Cert GmbH	TR ^{B)}	LA	<input checked="" type="checkbox"/>	-	<input type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Rainer Winter	TUV NORD Cert GmbH	TR, FA ^{B)}	SA	<input checked="" type="checkbox"/>	1.2.4	<input type="checkbox"/>	-

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2,)

⁵⁾ In case of verification projects

^{A)} Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

^{B)} No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

In order to qualify further personnel the project team was accompanied trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence for the above mentioned team members are enclosed in annex 7 of this report.

3.4 Consideration of Public Stakeholder Comments

Acc. To the modalities and procedures the draft POA-DDs, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the validation activity commenced. Stakeholders have been invited to comment on the POA-DD within the 30 days public commenting period.

The Comments received during this period were taken into account and please refer Annex 5 of this report.

3.5 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements each CDM project has to meet as well as PoA specific issues as applicable. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements that a PoA is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol as described in Figure 1.

Figure 1: Validation protocol tables

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	Validation Team Comment	Reference	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organized in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual project activity.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVM shall be covered in this section.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

The completed validation protocol is enclosed in Annex 1 to this report.

3.6 Review of Documents

The published POA-DDs (version 1) and supporting background documents related to the programme design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the programme design or to the basic conditions and technical data.

3.7 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the programme documentations and to gain additional information regarding the compliance of the PoA with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 3-3.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project participant representatives	<ul style="list-style-type: none"> - Chronological description of the programme activity with documents of key steps of the implementation. - Current status of programme design - Technical details of the programme realization, programme feasibility, designing, operational life time, monitoring of the programme - Host Government Approval - Approval procedures and status - Monitoring and measurement equipment and system - Financial aspects - Crediting period - Programme activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues - Monitoring of CPAs - Analysis of local stakeholder consultation - Roles & responsibilities of the project participants w.r.t. programme management, monitoring and reporting - National Legislation - Editorial issues of the POA-DD and CPA-DDs

A comprehensive list of all interviewed persons is part of section 7 'References'.

3.8 Project comparison

The validation team has compared the proposed PoA activity with similar PoA or CDM projects / technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- Programme technology
- Additionality issues
- Reasons for reviews, requests for reviews and rejections within the CDM registration process.

3.9 Resolution of Clarification and Corrective Action Requests

3.9.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the programme documentation which will have a direct influence on the programme results,
- the requirements deemed relevant for validation of the PoA with certain characteristics have not been met or
- there is a risk that the programme would not be registered by the UNFCCC or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to programme implementation should be reviewed during the first verification of each CPA.

3.9.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project participant in order to respond on the issues raised and to revise the programme documentations accordingly.

3.9.3 Final Validation

The final validation starts after receiving the proposed corrective actions (Cas) to the CARs, CLs and FARs from the project participant. The project participant has to reply on all CARs, CLs and FARs and the requests are "closed out" by the validation team in case the response is assessed as sufficient. In case of raised FARs the project participant has to respond on this, identifying the necessary actions to ensure that the topics raised in this finding are likely to be resolved at the latest during the first

verification of each CPA. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project participant or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

3.10 Technical review

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this PoA falls under. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.11 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the published POA-DDs, visits, interviews and supporting documents are summarized:

Table 4-1: Summary of CARs, CLs and FARs issued

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
POA-DD			
General description of the programme of activities (PoA-A) <ul style="list-style-type: none"> - Programme title and description - PoA Operating and implementing framework - Policy/measure or stated goal of the PoA - Confirmation of voluntary action - Coordinating/managing entity and Participation - Communication with the Board - PP in relation to the PoA - Technical description of the PoA - PoA boundary and locations - Description of a typical CPA - Eligibility criteria for CPA inclusion - Description of PoA GHG emission reduction - Additionality demonstration of the PoA - Operational, management and monitoring plan of the PoA - Public funding of the PoA - POA-DD editorial and consistency aspects 	9	0	0
Duration of the PoA (PoA-B) <ul style="list-style-type: none"> - Starting date of the PoA - Length of the PoA 	2	0	0
Environmental analysis (PoA-C) <ul style="list-style-type: none"> - Level of choice - Environmental impact analysis documentation - EIA requirements 	0	1	1
Stakeholder Comments (PoA-D) <ul style="list-style-type: none"> - Level of choice - Means of inviting and compiling local stakeholder comments - Summary of comments received 	0	2	0

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
- Report on due account taken			
Application of baseline and monitoring methodology to a typical CPA (PoA-E) <ul style="list-style-type: none"> - Application of the Methodology to a typical CPA - Sources and gases within the CPA boundary - Baseline identification - Additionality demonstration of a CPA - Emission reductions Estimation of a CPA - Methodological choices - Equations, ex-ante parameters - To be reported CPA data and parameters - Monitoring Methodology and Monitoring Plan - To be monitored CPA data and parameters - CPA monitoring plan 	6	0	0
Annexes (PoA-An) <ul style="list-style-type: none"> - Annex 1: Contact information on Coordinating/managing entity and participants - Annex 2: Information regarding public funding - Annex 3: Baseline information - Annex 4: Monitoring plan 	1	0	0
Sub-Sum	18	3	1
Generic CPA-DD			
General description of the CPA (gCPA-A) <ul style="list-style-type: none"> - CPA title and description - Entity/individual responsible for the CPA - Technical description of the PoA - CPA boundary and locations - Duration of the CPA - Public funding of the CPA - De-bundling of SSC CPA - Confirmation of no double counting - POA-DD editorial and consistency aspects 	0	0	0
Eligibility of CPA and Estimation of Emission Reductions (gCPA-B) <ul style="list-style-type: none"> - Title and Reference of the PoA - Eligibility criteria for CPA inclusion - Additionality demonstration of a CPA 	0	0	0

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
<ul style="list-style-type: none"> - Sources and gases within the CPA boundary - Emission reductions calculation of a CPA - Equations, ex-ante parameters - To be reported CPA data and parameters - Monitoring Methodology and Monitoring Plan - To be monitored CPA data and parameters - CPA monitoring plan 			
Environmental Analysis (gCPA-C) <ul style="list-style-type: none"> - Level of choice - Environmental impact analysis documentation - EIA requirements 	0	0	0
Stakeholder Comments (gCPA-D) <ul style="list-style-type: none"> - Level of choice - Means of inviting and compiling local stakeholder comments - Summary of comments received - Report on due account taken 	0	0	0
Annexes (gCPA-An) <ul style="list-style-type: none"> - Annex 1: Contact information on entity/individual responsible for the CPA - Annex 2: Information regarding public funding - Annex 3: Baseline information - Annex 4: Monitoring plan 	1	0	0
Sub-Sum	1	0	0
Total Sum	19	3	1

¹⁾ The letters in brackets refer to the finding titles, corresponding sections in PoA-DD and generic CPA-DD and validation protocol

The following tables include all raised CARs, CLs and FARs. For an in depth evaluation of all validation items it should be referred to the validation protocols (see Annex 1 of this report).

Table 4-2: PoA PDD/generic CPA-DD/real case CPA-DD versions used for assessments

Version Nr.	Assessment Round
PDD v. 1 (Published)	Description of findings
PDD v.2	DOE Assessment #1
PDD v.3	1 st TR Round

Version Nr.	Assessment Round
PDD v.4	2 nd TR Round

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ol style="list-style-type: none"> 1) No page number has been referred to the footnote mentioned in section A.2 and other sections of the PoA-DD, generic CPA-DD and real case CPA-DD. 2) The name/Title of the PoA mentioned in the generic CPA-DD and real case CPA-DD are not matching with the title of the PoA-DD. 3) The details mentioned for peak shortage and energy shortage under social well being is not traceable in the provided reference both in PoA-DD, real case CPA-DD and generic CPA-DD. 4) Typographical error identified in page number 4 of the PoA-DD. Also abbreviations are not included in the PoA-DD, generic CPA-DD and real case CPA-DD for most of the cases. 5) Not able to open the web link provided in footnote number 6, 10, 12 etc in PoA-DD. 6) Flow chart and figures are not named/titled in the PoA-DD. 7) Information regarding the annual average emission reductions for the 1st CPA is not mentioned in the description of the PoA-DD. 		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: Page number references documents referred to in the foot note is provided.</p> <p>Response 2: The title of the project is corrected in the in the generic CPA-DD and real case CPA-DD and in line with the title of the PoA-DD.</p> <p>Response 3: The link of the working group report to support peak and energy shortage is rectified in the revised PoA DD.</p> <p>Response 4: Typographical error is rectified and list of Abbreviation is introduced in the revised PoA DD.</p> <p>Response 5: The web-link is rectified in the revised PoA DD and also the date of the last accessed around the time of response is given (as some web link is not applicable after a particular period of time). However the screen shots are also available.</p> <p>Response 6: Flow chart and figures are named and titled in the revised PoA DD.</p> <p>Response 7: The First CPA will include installation of 21,300 sq. metre of solar water heater collector in the state of Maharashtra only limited to residential establishment. Although in the webhosted CPA DD the PP envisaged installation in Karnataka and</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>Maharashtra however in the present scenario only the installations from Maharashtra are considered under CPA0001.</p> <p>In the webhosted PDD the CEA data base version 6 was considered for estimating the grid emission factor, however version 7 of the CEA database being applicable as on date and is therefore considered for estimating the grid emission factor (also refer to response for the finding PoA E5). Net emission reduction from the project activity based on stipulated energy saving method is arrived at 8,832tCO_{2e}/annum. All the calculation and assumptions are included in the CER sheet as well as the revised Specific CPA DD. The conceiving of higher emission factor and system only across NEWNE grid has resulted in enhancement of emission reduction in compared to the webhosted version.</p> <p>The revised PoA DD is submitted to the DOE for Validation.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>1.The page numbers for the all the reference (wherever applicable as reference documents running into page) are given in the section A.2 and other sections of the Revised PoA-DD, Revised generic CPA-DD and Revised real case CPA-DD. Thus it enables any third party reader to go the exact reference mentioned without going through all the pages. Hence accepted and closed.</p> <p>2. The title of the PoA "Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme" is made consistent in all the revised versions of POA- DD, Generic CPA- DD, Specific CPA-DD. Hence closed.</p> <p>3. The reference mentioned as source for peak shortage is taken from Eleventh plan data and to substantiate that a publicly available source - Solar water heating systems – A review of global experiences" (UNDP involved) is also provided as foot no 6 in the revised PoA –DD, hence closed.</p> <p>4.The typo errors (Capitalize each word) formatting is done where ever applicable in the revised PoA-DD and the abbreviations used are listed in table -17 of the revised PoA-DD, in annex-4 of the Generic CPA –DD and specific CPA-DD. Accepted.</p> <p>5. All the Web links used as reference in all the 3 revised Design documents are working as accessed on 12-09-2012.</p> <p>6. All the flow charts figures and tables are listed in order in the revised Design documents.</p> <p>7. The annual average emission reductions of the 1st CPA over the crediting period have been included in the revised PoA DD. The explanation for higher CER estimation in the revised CPA DD than</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>the one estimated in the webhosted CPA DD is also accepted as the emission factor calculated from the applicable version 7 of the CEA database is higher than the one given as per version 6 of the CEA data base in the webhosted PDD. Accordingly the assumptions and methods used to calculate the emission reductions are clearly given in the revised emission reduction calculation sheets and revised CPA –DD and PoA DD. Hence Closed.</p> <p>Thus the POA-DD has been duly filled with respect to all sections in accordance with the latest guidance(s) and procedures and all information is consistently described.</p> <p>Also the information regarding the annual average emission reductions of the 1st CPA over the crediting period has been included in the description of the PoA</p> <p>Hence CAR PoA- A1 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.1.3 and A.2.5		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A2	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ol style="list-style-type: none"> Host country approval for the project from the National Clean Development Authority, Ministry of Environment and Forests (MoEF), Government of India, has not been submitted. The modalities of communication (MOC) shall also be provided to the DOE for validation. 		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: Host country approval no 4/10/2012- CCC dated 27 June 2012 from MoEF, Government of India,(the host party DNA) to the Project Participant is submitted.</p> <p>Response 2: The Copy of the Modalities of communication is also submitted to the DOE for Validation.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Project activity approval has been obtained from MoEF, GOI, DNA of India vide the Letter of Approval HCA No.4/10/2012-CCC dated 27 June 2012 and the letter confirms the following</p> <ol style="list-style-type: none"> The project has the written approval from the host party (India) involved. The HCA has been issued by Ministry of Environment and Forestry (MoEF)^{/MOEF/} which is listed as the DNA on the UNFCCC CDM website. The host country approval^{/HCA/} confirms that the corresponding party is a Party to the Kyoto Protocol. 		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A2	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>4. The host country approval^{/HCA/} confirms that the participation is voluntary.</p> <p>5. The host country approval^{/HCA/} confirms that the project contributes to the sustainable development in the country.</p> <p>6. The host country approval^{/HCA/} refers to the precise project title in the PDD submitted for registration.</p> <p>7. The host country approval^{/HCA/} is unconditional with regard to the checklist questions, A.1.3 to A.1.6 in the validation protocol of the FVR.</p> <p>8. The host county approval^{/HCA/} has been issued in the name of M/s G K Energy Marketers Pvt. Ltd which is listed as the CME in section section A3 and annex 1 of the PDD.</p> <p>9. The host country approval^{/HCA/} mentions that the project assists in achieving sustainable development in the host country (India) i.e, the PoA create other environmental or social benefits other than GHG emission reduction.</p> <p>The MOC Confirms that</p> <p>(1) the CME of the PoA communicates with the CDM Executive Board;</p> <p>(2)The CME is either sole or joint focal point for each area of communication;</p> <p>(3)Number of joint focal points for the PoA is not more than 5, or equal to the number of host Parties if greater than 5.</p> <p>The validation team can confirm furthermore:</p> <p>(4)No modifications to the template/form have been made;</p> <p>(5)Each document (MOC statement including the Annex 1) has been clearly dated;</p> <p>(6)Title of the project and names of CME and project participants and focal points have been fully consistent with those indicated in all other project documentation submitted at the request for registration stage (e.g., DD, LOAs, etc.);</p> <p>(7)Focal point scopes have been clearly and correctly indicated;</p> <p>(8)Contact details and specimen signatures of focal point entities have been correctly entered.</p> <p>(9)All inputs are typed in without hand-written.</p> <p>Hence CAR PoA - A2 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist: A.2.4, A.3.3 to A.3.7		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-A3	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-A3	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding Describe the finding in unambiguous style; address the context (e.g. section)	1. Section A.4.1.2 – The source for the geographical boundary is not traceable. 2. Section A.3 of generic CPA-DD- The following statement is generic "The Co-coordinating and Managing entity (CME) will either be the Project Proponent or other agencies". Please clarify.		
Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details.	Response 1: The source of the project boundary http://www.mapsofindia.com/maps/india/india-political-map.htm# is included in the revised PoA DD. Response 2: The CME for the CPA's to PoA will be M/s G K Energy Marketers Pvt. Ltd The statement is revised in the Generic CPA DD. The revised CPA – DD generic is submitted to the DOE.		
DOE Assessment #1 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	1. The source of geographic boundary given in the revised design documents are checked and found ok. 2. Section A.3 of the revised PoA DD clearly states that M/s G K Energy Marketers Pvt. Ltd will act as the CME for the PoA. Hence accepted.. Thus it is confirmed that the map shown unambiguously delineates the geographical boundary of the PoA and the role of M/s G K Energy Marketers Pvt. Ltd is clearly indicated hence CAR PoA-A3 is closed.		
Related Checklist(s)	PoA-DD Checklist A.4.1.2.2.		
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A4	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding Describe the finding in unambiguous style; address the context (e.g. section)	Section A.4.2.1: 1. No clear and accurate description provided for force draft SWH technology identified in the PoA-DD. 2. Difference between the following sentences are not clear under real case CPA-DD "The system to be selected under the first CPA will be limited to a maximum capacity of 8 m ² per establishment installed" and "Each of the independent SWH system is smaller than 6428 m ² "		
Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details.	Response 1: Forced Circulation system: The forced circulation systems are solar water heater system that uses electrical pumps to circulate the water between collectors and storage tanks. The operation of the pump in the forced draft system is a controller based and normally operates on the differential		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A4	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>temperature basis. A forced circulation system can be included in both open /closed loop system and ETC/FPC based system. The description in regard to the Forced Draft technology is included in revised PoA-DD</p> <p>Response 2: In accordance to Annex 1, table 1 of the methodology AMS-I.J residential system with standalone capacity of less than or equal to 8m² can opt for emission reduction estimation using Stipulated energy saving method. The specific CPA 0001 is opting for Stipulated energy saving method for calculation of emission reduction estimation. More over the CPA0001 is conceived under "Guidelines for demonstrating additionality of micro small scale project activities" EB 68 Annex 26 paragraph 2.c and therefore in accordance to the methodological requirement as well as additionality guidelines the installation should comply the following criterion:</p> <ol style="list-style-type: none"> 1. Each of the independent subsystem is to be lower than lower than 1500kW or 4500kWth. Considering conversion factor of 700 W/m² the maximum threshold capacity of the independent solar water heater system in any of the residential apartment conceived under CPA 00001 will be less than or equal to 6428m² 2. Since stipulated energy saving method is used as approach for emission reduction estimation therefore each of the individual subsystem cannot be more than 8m² <p>Since the maximum threshold capacity to be conceived for standalone SWH system is limited to 8m² and is lower than the threshold for demonstrating additionality which is 6428m² the upper limit of 8 m² will be considered as threshold for any independent SWH system under the CPA. Moreover since the threshold capacity of SWH system under stipulated energy saving method is limited to 8m² the installation will also satisfies the criteria for demonstrating automatic additionality under small scale project activity as well..</p>		
<p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>The detailed description for forced draft circulation in both FPC and ETC system are given in section A.4.2.1 of the revised PoA DD and in section A.2 of the revised Generic CPA DD. The electricity consumption of the user pump used for forced circulation is monitored and the same is mentioned in section A.4.4.2 and the parameter EC_{PE} is monitored as given in section E.7.1 of the revised PoA DD and in section B.6.1 of the revised generic CPA DD. The project emission calculations in actual scenario are presented in section E.6.2 of the revised PoA DD and in section B.5.2 of the revised Generic CPA DD but for ex-ante it is assumed as 0. Hence accepted.</p> <p>Response 2: Point number 6 of the eligibility criteria mentioned in section A.4.2.2 of the revised PoA –DD is checked and found ok.</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A4	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>Also as per EB 61 annex21 paragraph 4 (d) the conversion factor of 700 W/m² is taken and the threshold limit for each of the independent sub-systems calculated as 6428 m² is accepted.</p> <p>As per methodology any of the independent systems envisaged in the CPA0001 will be less than or equal to 8 m² as this CPA is using stipulated energy saving method for CER calculation.</p> <p>The statements are revised to enhance clarity.</p> <p>Thus it is concluded that the PoA-DD</p> <p>(I) unambiguously defines a CDM programme activity (CPA) under the PoA</p> <p>(II) contains a clear, accurate and complete description of the CPAs with regard to the technology / measures to be used</p> <p>(III) description is in accordance with the real situation and it is most likely that the project will be implemented acc. to the project description</p> <p>Hence CAR PoA A4 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.2 to A.4.2.1.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A5	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section A.4.2.2:</p> <p>The full list of criteria for enrolling a CPA into the PoA is not clearly described. Certain information as per EB 65 Annex 3 version 01.0 is not transparent.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Section A.4.2.2 of the PoA DD is modified to include all the eligibility criteria in accordance to "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" version 1 Annex 3 EB 65.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The section A.4.2.2 of the revised PoA DD and section B.2 of the revised Generic CPA DD are checked and found all the 12 enrolling criteria for a CPA as per paragraph 14 EB 65 Annex 3 guidelines are included. However it is identified that the evidences used for those criteria are not given clearly please explain. CAR PoA-A5 is open.</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A5	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The column is added in the table for documents to be reviewed for each and every criterion in the revised documents.		
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The section A.4.2.2 of the revised PoA DD and section B.2 of the revised Generic CPA DD are checked and found all the 12 enrolling criteria for a CPA as per paragraph 14 EB 65 Annex 3 guidelines are included and in that the PP had added column and indicated the references which will be checked for enrolling. Thus it is concluded that</p> <p>(i) the appropriate criteria for demonstration of additionality of the CPA, and also the project qualifies as small scale project activity as EB 68 annex 27 guidelines and</p> <p>(ii) all (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility is given. (For further information on the assessment of eligibility criteria please also refer to annex 6 of this report)</p> <p>Hence CAR PoA-A5 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.2.2 and A.4.4.1.5		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-A6	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section A.4.3:</p> <p>1. Explanation is missing in the PoA-DD with respect to greenfield, alteration of existing system, retrofit etc.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The explanation in regard to the green field project activity, alteration of the existing system is included in Section A.4.2.2. of the revised PoA-DD.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE</i>	<p>The section A.2 and section B.2 of the revised Generic CPA DD and section A.4.2.2 of the revised POA DD is revised with all the eligibility criteria for inclusion of a SSC-CPA in the PoA, Point no 5 of the enrolling criteria of CPA is checked and the explanation for Greenfield / retrofit systems are given as per the methodology applicability criteria as the installations are residential solar water</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-A6	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
assessments (#2, #3, etc.) shall be added.	<p>heating (SWH) systems and commercial SWH systems for hot water production. The SWH systems displace electricity or fossil fuel which may be in retrofits and in new construction.</p> <p>Also it can be concluded that a clear description is included regarding the differences between the project and the pre-project situation. Hence CAR PoA-A6 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.2.1.3		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A7	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section A.4.4.1:</p> <ol style="list-style-type: none"> 1. Detailed roles and responsibilities, training arrangements and capacity development, procedure for technical review of inclusion of CPA's, data management responsibilities, detailed record-keeping system for each CPA under the PoA, storage area of records and how to process performance documentation, and relevant evidence re not explained in detail in the PoA-DD, real case CPA-DD. 2. How the project implementers and management structure will be identified? No explanation is provided in the PoA-DD. 3. Detailed procedure with proper justification is required for the elimination of the following point "In order to ensure that each SWH aggregated under a CPA is not included into another CPA the CME will confirms from the central data base which ensures that applications for participation in the programme cannot be submitted twice for the same SWH". 4. Detailed description in arriving 1% threshold as required by the "Guidelines on assessment of de bundling for SSC project activities" is not included in the PoA-DD, generic CPA-DD and real case CPA-DD. 5. What is the procedure adopted by the CME for the provisions to ensure that the CPA operators are aware of the CDM benefits and have agreed that their activity is being subscribed to the PoA? Also please refer to Annex 4. 		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response1: Detailed roles and responsibilities, arrangement of training and capacity development, procedure for technical review of inclusion of CPA's, data management responsibilities, detailed record-keeping system for each CPA under the PoA, storage area of records and how to process performance documentation is included in section A.4.4.1, A.4.4.2 and section E.7.2 of the revised PoA DD. The relevant evidences are given in the form of data base</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A7	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>content in section A.4.4.1,</p> <p>Response 2: The detailed management structure is included in section A.4.4.1 of the revised PoA DD.</p> <p>Response 3: A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA is detailed in section A.4.2.2 of the revised PoA DD..</p> <p>Response 4: The 1% threshold for small scale CPA is 640m2 and for a micro scale is 214 m2. The debundling check is required if the above threshold limit is exceed for any of the system under any CPA then debundling check is required.</p> <p>Response 5: M/s G K Energy Marketers Pvt. Ltd will act as the CME for all the CPA under the PoA. M/s G K Energy Marketers Pvt. Ltd will act as the CME for all CPA. The CME will sign bipartite/ tripartite agreement with the end user installing the SWH . As a part of the contractual agreement the party implementing the CPA and its end user will pass on the right of CER claim to the CME and CME will be the focal point under the modalities of communication. The CME will explain in details to the end user about the CDM and the benefit that the end user is supposed to receive during the signing of agreement</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>1. In section A.4.4.1 of the revised PoA DD the detailed information about operational and management structure, recording keeping data base content, which give the relevant evidences to be checked and management structure are given. In section A.4.4.2 of the revised PoA DD under monitoring plan the detailed information about training, QA/ QC procedures, In section E.7.2 record keeping and archiving procedures are mentioned. The mentioned procedure is appropriate in the project context hence accepted</p> <p>2. Section A.4.4.1 of the revised PoA DD is checked and the management structure is given in detailed and concluded that the data management procedure is well defined is in place and concluded that the same can be in place for monitoring of this project activity. Hence accepted.</p> <p>3. In point 2 of section A.4.2.2 (Eligibility criteria for inclusion of a SSC-CPA in the PoA) the procedure to avoid double counting is elaborated. Thus it is concluded that the SWH prescribed to a particular CPA will remain within that CPA and will not be added to</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A7	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>any other CPAs. Hence accepted.</p> <p>4. The 1% threshold limits are clearly explained as per EB 54 Annex 13 paragraph 10. The debundling check is required at CPA level if any of the subsystems exceeds 640 m² under small scale CPA or 214 m² under micro scale CPA. The revised documents are in line with point 12 of eligibility criteria for inclusion of a SSC-CPA in the revised PoA DD and section A.4.6 of the revised Specific CPA DD and Generic CPA DD. Also the small scale threshold limit as per EB 68 Annex 27 guidelines is well defined Hence accepted.</p> <p>5. In section A.4.4.2 of the revised PoA- DD under the roles and responsibilities of the CME under para (iv) the explanation is provided. It is also ensured that the management plan makes provisions for meeting training and maintenance needs of the implementation of the PoA and the CME made provisions to ensure that the CPA operators are aware of and have agreed that their activity is being subscribed to the PoA. Also after getting the training from the CME as per the PoA requirements and then the CPA operators will be allowed to do monitoring activities. Thus the training and maintenance needs mentioned in the management plan are applicable to the PoA. Hence accepted.</p> <p>Hence CAR PoA-A7 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.4.1.1 to A.4.4.1.7		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A8	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section A.4.4.2:</p> <p>1. Justification in selection of choices of methods for emission reductions determination is not presented transparently in the PoA-DD.</p> <p>2. The sample method that will be carried out during the monitoring period has not been defined in the PoA-DD and real case CPA-DD as per EB65 Annex 2.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response1:</p> <p>The selection of the approach for emission reduction estimation is as follows:</p> <p>1. In accordance to Annex I of the small scale methodology the choice of stipulated energy saving method is to be considered</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A8	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>only for all the residential system which are very small i.e. capacity of individual standalone is $\leq 8 \text{ m}^2$.</p> <p>2. For Large systems 100% system metering will be used (standalone system capacity $\geq 100 \text{ m}^2$)</p> <p>3. For small systems in residential complex (standalone system capacity 8 m^2 and 100 m^2) system metering will be used for representative sample.</p> <p>4. All commercial system irrespective of collector capacity will use total monitoring.</p> <p>Response 2: Following are the data parameters to be monitored / inspected by sampling</p> <p>1. The number of system to be sampled to ascertain whether the systems installed are in function or not if the CPA uses very small system. Residential system with standalone capacity less than 8 m^2 is to undertake sample.</p> <p>2. Number of metering system to be installed if the CPA contains small installation (Residential system with standalone collector capacity of more than 8 m^2 and less than 100 m^2)</p> <p>3. If the CPA uses the combination of small and very small system both the sampling approach will be used.</p> <p>The sampling design is included in section E.7.2 of the PoA- DD and generic CPA DD and 1st approach in real case CPA DD</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>1. In section A.4.4.2 of the revised PoA DD the choice of method for emission reduction calculation is given transparently and is in line with Annex-1 Table -1 of the methodology AMS.I.J. Also it is given that each CPA will use only one method and will not use combination of methods for emission reduction calculation. Hence accepted.</p> <p>2. In section E.7.2 of the revised PoA DD and section B.6.2 generic CPA- DD, the detailed monitoring approach is given. The sample size estimation for the area of collectors still operational for very small systems (with collector area $\leq 8 \text{ m}^2$) and for number sample systems to be selected for metering for small systems (with collector area between 8 m^2 and 100 m^2) is given transparently. Also considering the demographics and homogeneity of technology and user type (only residential), the selection of simple random sampling is accepted and is in line with EB69 Annex 5 guidelines. Hence CAR is closed.</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-A8	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>Also in the real case CPA, the sampling given is in line with the PoA DD and Generic CPA.</p> <p>Thus it is concluded that a transparent system is defined for the verification method that verifies each CPA, and described in the PoA-DD that ensures no double accounting of ER occurs among all units within all CPAs, and the verification status can be determined any time for each CPA. The formulas and algorithms for Emission reduction calculations and sampling survey are applied correctly and assumptions are justified and in line with the methodological requirements. Hence accepted CAR PoA- A8 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.4.2.1 to A.4.4.2.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-A9	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section A.4.5 and Annex 2:</p> <ol style="list-style-type: none"> 1. A declaration with documentary evidence that no public funding is used and hence no ODA has been diverted for the PoA is requested. 2. A confirmation is also pending whether there are any bilateral or multilateral fund project participants involved in the PoA, and if DNA(s) have authorized the fund(s) to the project participant (EB 51 Annex 3, para 100 (b)) 		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Self-declaration by the CME to substantiate that there has been no public funding, diversion of ODA, or any bilateral or multilateral fund is submitted to the DOE.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The self declaration letter by the CME^{/ODA/} dated 15-06-2012 stating no ODA or any bilateral or multilateral fund is availed for this PoA is submitted.</p> <p>Hence CAR PoA-A9 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.5.1 to A.4.5.2, An.2.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
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Finding	PoA-B1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The starting date of the real case CPA (1 st CPA) needs to be evidenced to show that is in line with CDM Glossary of Terms, EB 66, Annex63.			
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The Starting date of the real case CPA (1 st CPA) is the date on which the first SWH system was purchased by the beneficiaries who have agreed upon to join the CPA and enter into contractual agreement with the CME.			
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The starting date of the real case CPA is 16-04-2012. The date on which the first SWH of the system is purchased. The copy of the invoice and end user agreement between the CME, supplier and the end user dated 16-04-2012 is submitted and verified. Thus as per CDM glossary of terms the start date is the earliest date at which either the implementation or construction or real action of a CDM project activity or PoA begins. Hence CAR PoA-B1 is closed.			
Related Checklist(s)	PoA-DD Checklist B.1.1			
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD	
Finding	PoA-B2	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Technical Information: 1. Technical details of the units, peripheral parts, and the process of the SWH is pending. 2. Technical lifetime of the SWH units is requested by the validation team. Equipment technical specification sheet shall be provided to support the same.			
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Response 1: The technical details of the unit are included in the revised PoA DD, CPA DD generic and specific. Relevant literature are also provided to DOE to substantiate the technical details. Response 2: The manufacturer specification relating to lifetime of the SWH system is provided to the DOE. The life time of the SWH is 15 years. If any of the SWH is non functional or fails the emission reduction for those will not be accounted. The equipment technical specification documents are also provided.			
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3,</i>	1. The SWH systems used by this PoA are either MNRE approved or BIS approved systems. The following web link was checked http://solarwaterheater.gov.in and the technical details given in section A.4.2.1 of the revised PoA DD were checked and found correct. 2. The Manufactures specification for life time is submitted and it states that the life time is 15 years and the same is incorporated in			

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-B2	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
<i>etc.) shall be added.</i>	<p>section A.4.2.2 of the real case CPA DD and it is mentioned in section E.7.2 of the PoA –DD that emission reductions will be not be claimed for non functional systems.</p> <p>Hence CAR is closed.</p>		
Related Checklist(s)	PoA-DD Checklist A.4.2.1.4.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-C1	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section C. 1. - EIA:</p> <ol style="list-style-type: none"> 1. If the electric geyser is replaced with a solar water heater in residential/commercial buildings, how would the now defunctional electric heater be disposed of? 2. In case of damaged SWH units, how the parts of the SWH units will be disposed of? 		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response1: The electric heaters are manufactured out of steel/plastic body and copper/metallic coil The beneficiaries when select to dispose of the water heating system will be sold out to recyclable agencies which can thereafter be supplied to the manufacturing industries for being used as a raw material for the production since all the components of electric geysers/fossil fuel heaters are recyclable. The following section is included in the revised PoA DD. This can be verified by the verifying DOE during the first verification period hence leakage is not considered as per paragraph 12 of the methodology.</p> <p>Response 2: The disposal modalities of the SWH are not a requirement of the approved methodology.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PPs argument of dismantling or rather destroying of the electric geysers is accepted; However the same has to be verified by the verifying DOE in the first verification of all the CPA that the electric heater or the fossil fuel heaters are disposed as per paragraph 12 of the methodology and hence leakage is not considered for ex - ante calculations.</p> <p>The Disposal of the SWH after the life time is not a methodological requirement. Hence accepted.</p> <p>So a new FAR PoA C1 is raised and PoA-CL C1 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist C.1.1. to C.2.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-C1	<input type="checkbox"/> CAR	<input type="checkbox"/> CL <input checked="" type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The PPs argument of dismantling or rather destroying of the electric geysers is accepted; However the same has to be verified by the verifying DOE in the first verification of all the CPA that the electric heater or the fossil fuel heaters are disposed as per paragraph 12 of the methodology otherwise leakage has to be considered at every CPA level.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>			
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>			
Related Checklist(s)	PoA-DD Checklist C.1.1. to C.2.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input checked="" type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-D1	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Stakeholder Consultation: Section D.1: 1. Please provide copies of notification issued through newspapers/notice etc inviting the local stakeholders to comment on the general and environmental impacts of the proposed project activity. 2. Please provide copies of documented comments and of notification issued to stakeholders on having incorporated their comments.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The following documents are submitted to the DOE. 1, News paper advertisements. 2. Minutes of meeting. 3. Attendance sheet.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in</i>	The CME decided to conduct the stakeholder meeting at the CPA level; hence in section D of the real case CPA DD, the stakeholder consultation process is given transparently.		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD	
Finding	PoA-D1	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<i>annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The following documents submitted are verified</p> <p>1. Invitation in news paper Loksatya pune and Indian express on 2011-10-05.</p> <p>2. Minutes of the meeting dated 2011-10-13</p> <p>3. Attendance sheet of the meeting conducted on 2011-10-13</p> <p>Thus it is concluded that the stakeholder consultation process is before the webhosting of the PoA.</p> <p>Hence accepted and CL POA- D1 is closed.</p>			
Related Checklist(s)	PoA-DD Checklist D.1.3 and D.2.1			
Conclusion <i>Tick the appropriate checkbox</i>	<div><input type="checkbox"/> To be checked during the first periodic verification</div> <div><input type="checkbox"/> Additional action should be taken (finding remains open)</div> <div><input checked="" type="checkbox"/> The finding is closed</div>			

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD	
Finding	PoA-D2	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Global stakeholder comments: <div>1. What are the safe guards for a end user of solar water heater in terms of money received by the project proponent. (As per the calculations the project proponent would receive INR 800,000 every year. what is the surety that the end user would be paid & how would the end user will be paid (cash in hand or a bank transfer)</div> <div>2. Are the end user's aware about such a programme being initiated. Are there any consent forms available with the party to prove that end user is willing to share the information at a international level.</div> <div>3. What if a Solar Water Heater is not in use or decommissioned by end user would he still get the benefits as validating each system is a time consuming activity.</div>			
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Response1: The CME/PP will enter into an agreement by virtue of which the end user is entitled of receiving annual benefit subjected to the system being operated throughout the year in a regular operation and maintenance is being carried out. The end user agreement also vividly outlines on how the revenue from the CER will be shared with the end user/beneficiaries. A copy of the end user agreement is submitted to the DOE. Response 2: The end user agreement will act as consent and sample agreement is submitted to the DOE for validation. Response 3: As per the monitoring plan the CME has to obtain a certification from the End user that the system is in use and a record of periodic maintenance. Such issues are therefore			

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-D2	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
	absolutely impossible in the project case.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>1. After the end user agreement is signed by the beneficiaries and then only CME will add the system in a CPA. So, from the copy of the end user agreement it is known that the beneficiaries are aware of the carbon revenues. Hence the comment is closed.</p> <p>2. As above. Hence the second comment also closed.</p> <p>3. The monitoring plan clearly gives that only the proportion of the systems which are in operation are considered for emission reductions and a third party survey will be carried out for the same. Hence the decommissioned system cannot claim the credits. Also scheduled maintenance logs maintained by the suppliers will be cross checked. Hence the issue is closed.</p> <p>Hence CL PoA- D2 is closed.</p>		
Related Checklist(s)	PoA-DD - Annex 5		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section E.2</p> <p>1. Applicability criterion of AMS-I.J, version 01- para 2 (b) is not justified transparently.</p> <p>2. Latest Guideline to SSC CDM methodologies is not referred.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: The detailed eligibility criteria are justified in the revised PoA DD in section A.4.2.2.</p> <p>Response 2: The Guideline to SSC CDM methodologies is being referred to in the PoA DD for the threshold limits in terms of aperture area for solar collectors.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The Justification for the paragraph 2 b of the methodology AMS.I.J applicability condition is substantiated with the literature source^{/SR/} and article^{/MNRE- D/} from MNRE website is quoted. The same is revised in section A.4.2.2 of the revised PoA DD point 5 of the CPA inclusion criteria. Also as per paragraph 8 of the methodology that for new construction projects, conventional electric or fossil fuel based water heating system(s) would have been installed in the absence of the project activity is substantiated with literary sources^{/LTS/}. Hence accepted.</p> <p>The eligibility criteria for small scale threshold for solar water heaters is given as per paragraph 4 d of EB 58 annex 23 version 15</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	"General guideline to SSC CDM methodology is referred". Hence the citation is accepted.		
Related Checklist(s)	PoA-DD Checklist E.1.2 to E.2.4		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	PoA-E2	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Section E.3 The spatial boundaries (physical) of the PoA are not clearly defined in this section.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	As defined in AMS.I.J the spatial boundary of the project activity comprises of the physical and geographical boundary of all solar water heating system along with all accessories including the point of usage. The boundary will also include the NEWNE and southern grid.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	As per paragraph 6 of the methodology the project boundary is defined in the revised PoA DD. Also it is concluded that the CPA included all the GHGs in the project boundary as per the methodology. Hence CAR PoA- E2 is closed.		
Related Checklist(s)	PoA-DD Checklist E.3.1 and 3.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E3	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Baseline determination, Section E.4. 1. Not all the alternative scenarios are identified in the PoA-DD and elimination of coal or wood or biomass is not justified properly. 2. The PP is requested to include how national and/or sectoral policies and circumstances have been taken into account on the establishment of the baseline scenario (EB 22, Annex 3). 3. Evidence is required to justify the options mentioned under barrier analysis.		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E3	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: Use of wood based boiler for the purpose of water heating is more restricted as felling of firewood is prevented by the forest policy in many states. On the other hand the use of coal is much more polluting. Moreover wood or coal based boiler located at industrial/commercial establishment is used to suffice high temperature and pressure water/steam and is not the project product. Also choice of electricity is used as water heating systems in new residential building.</p> <p>Response 2: As per publication in MNRE a model regulation / building byelaw for installation of solar assisted water heating systems was circulated by the Ministry of Urban Development and Ministry of New and Renewable Energy to all States and Union Territories in 1999, to all local bodies for incorporation in their building bye-laws with a provision of mandating solar water heater usage in certain category of building. Based on circular about 21 states have issued necessary orders to their Urban Local Bodies. Further, about 90 Municipal Corporations / Municipal Committees / Development Authorities in eight states have amended their building bye-laws or have issued orders in this regard. Enforcement of these orders / amended bye-laws are, however, very poor in most of the Corporations/ Municipalities. The lack of provision of enforcement in the regulation and uniformity of the policy is also evident from the gap between the total estimated potential and the current level of installation in the country irrespective of the measures in terms provisioning of regulatory norms, awareness, financial and fiscal benefit offering by the state and central government towards promotion of the SWH technology. The Solar water heater programme as of now has already faced wide spread non-compliance in the country (a cumulative achievement of 5.63 million square meter out of the total potential of 140 million square meter). Therefore it can be concluded that the non-compliance of the mandatory provisioning of solar water heater is widespread across the country and the policy/regulation would not be systematically enforced and the PoA would lead to greater level of enforcement of existing mandatory policy/regulation by elevating the barrier preventing the commercialization of the technology.</p> <p>Response 3: Since the SWH is considered under the positive list of technology and conceived as automatic additional the barrier analysis is removed from referred section of the PoA DD.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3,</i>	<p>1. The most plausible baseline scenario used for low temperature applications in new constructions will be electrical geysers. The national and/or sectoral policies and circumstances have been taken into account on the establishment of the baseline scenario. The choice of wood and coal is ruled out as they are applicable for high pressure and temperature applications. Also it is polluting in the residential complexes. The same is included in the section E.4 of the PoA DD. Also the choice of electricity is used as baseline for</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E3	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
etc.) shall be added.	<p>new installations and the fuel replaced is used as the baseline for retrofit activities. The following source of information^{/LTS/} "Solar Water Heating System- A Review of Global Experiences – prepared by MNRE and REEEP (Renewable Energy and Energy Efficiency Partnership, South Asia" page 5 is referred and concluded that most of the hot water demand in residential buildings are met by electricity. Hence Accepted.</p> <p>2. As per EB 55 Annex 38 paragraph 6 (e) "Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities" though a policy is there but due to high costs and lack of uniform norms across the country, the same cannot be implemented. Thus, that this PoA will lead to the greater level enforcement of the policy norms is accepted.</p> <p>3. The foot notes 42, 43, 44 of the revised PoA DD are referred as evidence and the barrier analysis is removed and the query lost its relevance and the arguments are accepted.</p> <p>Thus the base line scenario is in line with para 7 and para 8 of the applied methodology and hence CAR PoA- E3 is closed..</p>		
Related Checklist(s)	PoA-DD Checklist A.4.1.2.3, A.4.3, E.4.1 to E.4.4		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E4	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Section E.5.2: As per PoA-DD, Approach II for demonstrating the additionality, it is mentioned that CPA's will apply Attachment A of Appendix B of the simplified modalities and procedures for small-scale CDM project activities and Non binding best practice to prove the additionality without any facts and figures. Please explain and justify why additionality is not proven at the PoA level.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Approach II: Additionality is demonstrated in accordance to "Guidelines on the demonstration of additionality of small-scale Project activities" Version 9.0 EB 68 annex 27. The guidelines specifies list of positive technology and project activity types that are defined to automatically additional. As per paragraph 2.c of the specified guidelines solar water heater technology is conceived as positive technology. The CPA covering SWH installation with Maximum installation limiting to a cumulative aperture area of 64,000 m² is conceived under the approach subjected to fulfillment</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E4	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>of the following specified criteria:</p> <ol style="list-style-type: none"> 1. Project activities solely composed of isolated units 2. Users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) 3. Size of each unit is no larger than 5% of the small-scale CDM thresholds i.e. 3200 m² <p>Therefore it can be concluded SWH installation covered under the PoA and fulfilling the aforesaid condition are conceived to be additional.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>In the revised PoA –DD the CME has proved the additionality at the PoA level and all CPAs under this PoA will have installations less than 64000 m² and complying the following conditions as per EB 68 annex 27 guidelines</p> <p>Project activities solely composed of isolated units.</p> <p>Users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs).</p> <p>Size of each unit is no larger than 5% of the small-scale CDM thresholds i.e. 3200 m².</p> <p>Thus the any CPA that is included in this PoA will either usage EB 68 Annex 26 Micro scale additionality guidelines or EB 68 Annex 27 Small scale additionality guidelines. Thus the CPA with less than 64,000 m² of collector area and complying the above three points are in the positive list.</p> <p>Hence as per the CPA inclusion criteria 6, all the CPAs are automatically additional.</p> <p>Thus after the existence of EB 68 annex 27 guidelines all the check list questions under E.5.1 and E.5.2 are not applicable. Hence CAR PoA- E4 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist under E.5.1 and E.5.2		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E5	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding	Section E.6.1:		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E5	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
<i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>1. A transparent spreadsheet calculation for Emission reductions is requested.</p> <p>2. Kindly clarify the basis for the CEA CO₂ data base referred in the PoA-DD, real case CPA-DD.</p> <p>3. Entire section on 'Emission Factor of displaced electricity' is not correct as per latest available information on the CEA website.</p> <p>4. The explanation about conservative approach used in Emission reduction Calculations and the reasons for excluding project emissions are missing.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: The spread sheet for calculation of Emission reduction is submitted.</p> <p>Response 2: Version 7 of the CEA database available at the time of webhosting is used in the revised PDD.</p> <p>Response 3: The emission factor of the displaced electricity that was earlier calculated based on the information available in the version 6 of the CEA database is revised in accordance to the information available in version 7 database. The following section is included in Annex 3 of the revised PDD.</p> <p>Response 4: The project emission is nil for natural draft SWH system as it uses only Solar radiation for its operation. However provision of project emission is included for forced draft system and is revised in the CER sheet and PoA DD.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The Emission reduction calculation sheets for PoA and real case CPA are submitted. Also the approaches followed for emission reduction calculation are given clearly.</p> <p>The Latest Version 7 of the CEA data base is used and same is verified with CER sheets and revised design documents.</p> <p>Same as above.</p> <p>The project emission calculations for forced draft system are now included in the revised PoA DD and emission reduction sheets. The conservative approach for emission reductions are given in the QA/QC procedures of the sampling plan.</p> <p>Hence accepted and CAR PoA-E5 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist E.6.1.2, E.6.2.1 to E.6.2.3 and E.6.3.1		
Conclusion <i>Tick the appropriate checkbox</i>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input type="checkbox"/> Additional action should be taken (finding remains open)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E6	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>1. Section A.4.4.2 and Section E.7.2 Monitoring Plan is not consistent rather not as per methodology. Also the monitoring plan is devoid of the following details</p> <p>i) Details of training, maintenance, and replacement procedures and QA/QC for monitored data are necessary. Also, include procedures and responsibilities for data collection, management and storage.</p> <p>ii) Metering system used (if any) for monitoring is not mentioned.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Response 1: The details pertaining to training, maintenance, QA/QC for monitored data along with the specific roles and responsibilities are included in section A.4.4.2 and E.7.2 of the revised PoA DD.</p> <p>Response 2: The detailed metering system to be used is included in section A.4.4.2 of the PoA DD</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The monitoring plan given in section A.4.4.2 and section E.7 are consistent in the revised PoA DD.</p> <p>As per the annex 1 of the methodology the emission reductions are calculated based on three approaches and separate plan for each approach is given. Hence Accepted.</p> <p>The following parameters acceptance Test and Inspection are given in the webhosted PoA-DD are removed in the revised PoA-DD, as these are not monitored parts rather it is a criteria for the inclusion of CPA. Hence it is ok.</p> <p>Also it includes the training and maintenance procedure, including data storage in section A.4.4.1 and A. 4.4.2, QA/ QC procedures are included in Section 4.4.2 and section E.7. Hence accepted.</p> <p>Also the metering system used and algorithm for determining the number of metering system and the monitored parameters as required for metering system are transparently given in section E.7.2.</p> <p>Thus it is concluded that</p> <p>(i) the means of monitoring of all parameters contained in the monitoring plan are feasible and in accordance with the requirements of the applied methodology with respect to</p> <p>a) label (name of the data / parameter)</p>		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-E6	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	<p>b) data unit c) description d) source of data e) value applied for ex-ante ER calculation f) measurement equipment / method / procedure g) QA/QC procedures h) Any comments</p> <p>(ii) all monitoring parameters as required by the applied methodology are contained in the monitoring plan</p> <p>(iii) a monitoring plan for all CPA has been developed in accordance with the approved monitoring methodology, and identified the monitoring provisions and data parameters a CPA has to apply/monitor</p> <p>(iv) QA/QC procedures are appropriate and sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified.</p> <p>(v) the monitoring plan can be implemented with all means.</p> <p>Hence CAR PoA-E6 is closed.</p>		
Related Checklist(s)	PoA-DD Checklist E.7.1.1, to E.7.1.3		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-An1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	AMS-I.J refers sampling and survey for monitoring. Nowhere in the PoA-DD or real case CPA-DD, EB 65, Annex 2 is referred and justified properly.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The detailed sampling plan is included in the revised PoA-DD and also included in the Response of CAR PoA A-8		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective</i>	In the revised PoA DD the sampling plan for proportion of collectors working for very small systems and the sample size system metering for small systems are clearly described in the monitoring plan. The specific sampling plan for CPA0001 is also reflected in the revised real case CPA DD.		

Related DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Finding	PoA-An1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
<i>action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The sample survey design and sample size estimation given in the revised PoA –DD is as per the "Guidelines for sampling and surveys for CDM project activities and programme of activities" EB 69 Annex 5.</p> <p>Hence CAR PoA-An1 are closed.</p>		
Related Checklist(s)	PoA-DD Checklist An 4.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Related POA-DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	gCPA-1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Please update the generic CPA-DD according to the PoA-DD, especially keep the information consistent between the following sections:		
	Generic CPA-DD	Finalized PoA-DD	Consistent and Appropriate
	A.1.	A.1	<input checked="" type="checkbox"/> Consistent
	A.2.	A.2. and A.4.2.1.	<input type="checkbox"/> Consistent
	A.3.	A.3.	<input checked="" type="checkbox"/> Consistent
	A.4.1.1.	A.4.1.1.	<input checked="" type="checkbox"/> Consistent
	A.4.1.2.	A.4.1.2.	<input checked="" type="checkbox"/> Consistent
	A.4.2.1.	Not prior to GSP of PoA-DD	<input checked="" type="checkbox"/> Appropriate
	A.4.2.2.	-	<input checked="" type="checkbox"/> Appropriate
	A.4.3.1.	B.1.	<input checked="" type="checkbox"/> Consistent
	A.4.3.2.	B.2.	<input checked="" type="checkbox"/> Consistent
	A.4.4.	-	<input checked="" type="checkbox"/> Appropriate
	A.4.5.	A.4.5.	<input checked="" type="checkbox"/> Consistent
	A.4.6.	A.4.4. and A.4.4.1.	<input checked="" type="checkbox"/> Consistent
	A.4.7.		<input checked="" type="checkbox"/> Consistent
	B.1.	A.1	<input checked="" type="checkbox"/> Consistent
	B.2.	A.4.2.2.	<input checked="" type="checkbox"/> Consistent
	B.3.	A.4.3, E.5, E.5.1 and E.5.2.	<input checked="" type="checkbox"/> Consistent
	B.4.	E.3.	<input checked="" type="checkbox"/> Consistent
	B.5.	E.6.	<input checked="" type="checkbox"/> Consistent
	B.5.1.	E.6.3	<input checked="" type="checkbox"/> Consistent
	B.5.2.	E.6.1 and E.6.2.	<input checked="" type="checkbox"/> Consistent
	B.5.3.	-	<input checked="" type="checkbox"/> Appropriate
	B.6.	E.1 and E.2.	<input checked="" type="checkbox"/> Consistent
	B.6.1.	E.7., E.7.1., E.7.2 and A.4.4.2.	<input checked="" type="checkbox"/> Consistent
	C.1. to C.3	C.1. to C.3	<input checked="" type="checkbox"/> Consistent

Related POA-DDs	<input checked="" type="checkbox"/> PoA-DD	<input checked="" type="checkbox"/> generic CPA-DD	<input type="checkbox"/> real case CPA-DD
Finding	gCPA-1	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL <input type="checkbox"/> FAR
	D.1. to D.4. Annex 1 to Annex 4	D.1 to D.4. Annex 1 to Annex 4	<input checked="" type="checkbox"/> Consistent <input checked="" type="checkbox"/> Consistent and Appropriate
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The content information in Section A.2 and A.4.1.1 of the revised PoA DD is included in the related section of the generic and real case CPA DD.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The information in section A.2 of the PoA –DD is consistent with section A.2 and section A.4.2.1of the revised CPA DD and Generic CPA DD. Also the other sections are also consistent after the revision of the documents due to the closure of CARs and CLs. Hence CAR gCPA-1 is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

5 VALIDATION ASSESSMENT SUMMARY

5.1.1 Participation

LOA(s)

The precise title of this PoA is: *Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme*. Host country Approval^{/HCA/} for Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme as Clean Development Mechanism Programme of Activities has been issued on 27 June 2012 (reference number 4/10/2012) vide official document by Indian DNA, Ministry of Environmental and Forest, Government of India.

The Ministry of Environmental and Forest is listed as DNA of India in the UNFCCC website and India ratified the Kyoto Protocol in August 2002.

There is no requirement from UNFCCC for obtaining letter of approvals for each CPA.

Nevertheless CAR PoA-A2 is raised and closed.

Project Participants and CME

The PoA CME (Coordinating and Managing Entity) is M/s G K Energy Marketers Pvt. Ltd also a project participant according to the host country approval^{/HCA/}. As per section A.3 of the PoA-DD CME will be the project participants of the individual CPAs.

Nevertheless CAR PoA-A3 is raised and closed.

5.1.2 Contribution to Sustainable Development

The DNA of India vide HCA No. 04/10/2012-CCC, dated 27 June 2012 affirms that the PoA contributes to sustainable development in India. As a corollary of this validation, the contributory nature of the proposed project activity to Sustainable Development in the Host Country i.e., India, is unambiguously and unconditionally corroborated

5.1.3 PDDs editorial Aspects

The PoA-DD is using CDM-SSC-PoA-DD template version 01 and generic CPA-DD is using CDM-SSC-CPA template version 01. They are in compliance with the available PoA-DD and CPA-DD templates and guidelines as per VVM standard.

Nevertheless CAR PoA-A1 is raised and closed.

5.1.4 Technology to be employed

The description of the PoA is complete, accurate and in compliance with the PoA-DD and CPA-DD templates, guidelines and the applied methodology. The PoA is designed to supply and install solar water heating systems for low temperature and pressure requirements in residential and commercial establishments. All the solar water heating devices which will be added to this PoA are approved by BIS or MNRE standards. Hence, it is concluded that the technology employed is confirmed as environmentally safe and sound.

Nevertheless CAR PoA-A4 and CAR PoA- B2 are raised and closed.

5.1.5 Small Scale Projects

The cumulative installation per CPA will not exceed 64000 m², the threshold limit for small scale project as per the General guidelines to the SSC CDM methodologies (version 17)

Thus project activity conforms to one of the approved small-scale methodology AMS-I.J. Version 01. Also it is confirmed that the small-scale methodology is applied in conjunction with the General guidelines to the SSC CDM methodologies as per VVM 136 (a) & (b).

Moreover, eligibility criteria are established which demand demonstration of additionality either by EB 68 Annex 26 - Guidelines for demonstrating additionality of micro-scale project activities (version 04.0) or by EB 68 Annex 27 - Guidelines on the demonstration of additionality of small-scale project activities (version 09.0) in section A.4.2.2 of the PoA-DD).

As those criteria must be met for each CPA in the PoA and so that DOE can confirm that the PoA will remain under the Small- scale limit.

As per the CPA inclusion criteria given in section A.4.2.2, point 2 of the PoA - DD it is given that the SWH units will be uniquely identified and double counting is avoided. Thus it can be ensured that the threshold limits of 64000 m² for small scale and 21428 m² for micro scale will not be exceeded in any year of the crediting period.

5.2 PoA Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology

By referring to the UNFCCC website, it is confirmed that the approved methodology for small-scale CDM project AMS-I.J.: Solar water heating systems (SWH) --- Version

1.0 is applicable to the proposed PoA. The version of this CDM Methodology approved by EB and is valid from 15 Apr 11 onwards

The methodology is available at:

<http://cdm.unfccc.int/methodologies/DB/GX9DV8QFP9X8BNR5GI1UUJD55EJ03A>

Furthermore, all applicability conditions of the applied methodology have been met and discussed in the PoA-DD and the generic CPA-DD. The PoA design is in line with all requirements and stipulations mentioned in all sections of the applied methodology.

Nevertheless CAR PoA-E1 is raised and closed.

5.2.2 PoA Boundary and CPA Boundary

The boundaries (geographically and related to GHG sources / sinks) are correctly given in section A.4.1.2 of the PoA-DD. The physical/geographical boundary of the titled PoA is the geographical area of India (comprising all the states and union territories).

The physical delineation of the CPA under the PoA and the description of the emission sources and GHGs that are included in the CPA boundary are appropriate for the purpose of calculating baseline emissions for each CPA.

It has been correctly stated that the project emissions will be involved in Forced draft systems where the user pump is used and that leakage emissions are not considered, appropriately as prescribed by the applied methodology AMS-I.J however during the first verification the DOE should ensure the baseline equipments are dismantled or destroyed as per paragraph 12 of the methodology and this regard FAR PoA C1 is raised.

Besides, there are no other sources which are impacted by the project and not addressed by the applied methodology.

Nevertheless CAR PoA-A3 and CAR PoA-E2 are raised and closed.

5.2.3 Baseline Identification

The procedure to identify the most plausible baseline scenario has been applied correctly and is transparently and sufficiently documented in the POA-DD.

The identified baselines are

(i) For retrofit projects, the baseline system(s) are the operating water heating system(s) and fuel source (fossil fuel or electricity) that existed immediately prior to the start of the SWH project activity.

(ii) As per the Publication by MNRE ² most of the hot water demand in various applications is met by heating water through conventional energy, that is, electric geysers running on grid power. Thus for new installations the baseline will be the grid electricity.

It has been assessed that the identified baseline scenario is plausible, conservative and reasonably represents what would occur in the absence of the proposed PoA. The approved methodology used is applicable to the identified baseline scenario. For a detail assessment of the baseline, please refer to Annex 1.

To ensure that the CPA complies with the baselines as described in the PoA, the CPAs will comply with the eligibility criterion 3 for inclusion of CPA in the PoA.

There are no national or sectoral policies or circumstances that affect the baseline scenario.

Nevertheless CAR PoA-E3 is raised and closed.

5.2.4 Calculation of GHG Emission Reductions

The POA-DD applies steps and equations to calculate baseline emissions, account for leakage and emission reductions as per the requirements of the applied methodology.

For the calculation of the GHG emission reductions the correct equations have been used reflecting the methodological choices.

Energy Savings

As per Annex 1 of the methodology, the energy savings for the PoA are calculated as below.

(i) If the installed systems are having less than or equal to 8 m² collector area in residential building and as per the methodology stipulated energy saving method is used and thus the energy saved is 450 kWh/year per m² of the collector area. For the purpose of taking 450 kWh/m²/year energy saving it will be ensured that none of the installation conceived under the project activity is installed in temporary and seasonal housing.

Thus the electrical energy savings for very small residential system ($\leq 8 \text{ m}^2$) (ELS_y) = 450 * Total collector area (in working condition³)

² Solar Water Heating System- A Review of Global Experiences – Prepared by MNRE and REEEP – page no 5, (http://www.aeinetnetwork.org/reep/doc/DIREC_Background.pdf)

³ Based on the sample survey to estimate the percentage of total collector installed and still working

(ii) If the installed systems are having greater than 8 m² and less than 100 m² collector area in residential building and as per the methodology the system metering method for sample system is used to measure the average heat gain per m² of the collector area.

Thus the energy savings for small residential system (between 8 m² and 100 m²),

$$= \text{Average Heat Gain per m}^2 * \text{Total collector area}$$

(Heat gain is $EG_d = m * C_p * \Delta t$ where m is the average volume flow rate of the water multiplied by density gives the total mass of the water heated, C_p is the specific heat capacity of the water and Δt is the average temperature gain of the all the systems.

(iii) If the installed systems are commercial system or more than 100 m² area in residential sytem and as per the methodology the system metering method is used for measure the heat gain of the individual systems.

Thus the energy savings for a commercial system / large residential system, $EG_{d, n, m}$

$$= M \times C_p \times \Delta t$$

Energy content of the consumed/utilised hot water for the nth system in mth month

M= the mass flow of water (monthly recording)

Δt = Average of the difference between inlet and outlet temperature (monthly recording)

Thus the cumulative heat gain is the sum of all $EG_{d, n, m}$.

Baseline Emissions

(i) The emission reduction under stipulated energy saving method is calculated as

$$ER_y = EF_{CO_2 \text{ ELEC}, y} \times ELS_y / (1 - TDL)$$

Where

ER_y = Emission reductions in year y (t CO₂)

$EF_{CO_2 \text{ ELEC}, y}$ = Carbon emission factor for grid-based electricity in year y (tCO₂ / MWh)

TDL = Transmission and distribution losses (%) (Assumed as 10% as per paragraph 11 of the methodology)

ELS_y = Electricity savings in year y (MWh).

Note for this method no project emissions and leakage emissions are taken into account.

(ii) The Baseline emission calculation for system metering method (small systems between 8m² and 100m²)

$$B_y = EF_y \times EG_d \times A$$

BE_y = Base line Emissions in year y (t CO₂)

EF_y = Carbon emission factor for replaced system (electricity grid / Fossil fuel).

EG_d = Average Energy content of the consumed/ utilised hot water per m².

A = Installed collector area in m²

(iii) The Baseline reduction calculation for system metering method (large systems more than 100 m² residential or Commercial systems)

$$BE_{y,n} = EF_y \times EG_{d,n}$$

BE_{y,n} = Baseline Emissions for the nth system, year y

EG_{d,n} = Heat gain for the nth system, year y..

EF_y = Carbon emission factor for replaced system (electricity grid / Fossil fuel).

The total baseline emission BE_y for the year y will be sum of all recordings for all ER_{y,n}.

The grid emission factor (if the replaced system is grid electricity) is fixed ex-ante and the value calculated based on the CEA database version 7. The values are 0.9215 tCO₂e/MWh for NEWNE grid and 0.8427 tCO₂e/MWh for southern grid of India.

For the other retrofit systems the emission factor of the fossil fuel (replaced fuel) will be the recent default IPCC values at the time of preparation of the monitoring report.

Project Emissions (PE_y)

There is no project emission associated with the natural draft systems. But for forced draft systems the electric user pump will be used to circulate the water. Hence for those systems the electricity consumption will be monitored to estimate the project emission and thus calculated as below

(i) System Metering (between 8m² and 100m²)

$$\text{Project Emissions } PE_y = EGA_{,y} * EF_{A,y}$$

Where EGA_{,y} is the overall electricity consumption of pumps used for forced draft system in the year y and EFA_{,y} is the grid emission factor for the respective grids from which the pumps draws it electricity.

The overall electricity consumption is estimated by EGA_{,y} = Average Electricity consumed by the pump for one m² in the proportionate sample systems using forced draft system in kWh/m² (EGAv, FD)* Total collector area in m² employing forced Draft system

(ii) Commercial and large systems.(above 100 m² residential)

$$PE_{y,n} = EG_{A, y,n} * EF_{A,y},$$

Where $PE_{y,n}$ is the Project emission due to auxiliary consumption of the nth system using forced draft, $EG_{A, y,n}$ is the overall electricity consumption of pumps used for nth system using forced draft system in the year y and

$EF_{A,y}$ is the grid emission factor for the respective grids from which the pumps draws it electricity

Thus PE_y is the sum of all $PE_{y,n}$.

Leakage Emissions (LE_y)

The project equipment is new installations and transferred from another activity hence leakage is not considered. However FAR PoA – C1 is raised and should be verified during the first verification that baseline equipment is destroyed or dismantled, otherwise leakage is to be considered.

Nevertheless CAR PoA-E5 is raised and closed.

5.2.5 Additionality Determination

Consideration of CDM in decision making

The starting date of CPA 1 2012-04-16 is defined as per CDM glossary of terms, and it is later than the commencement of validation of the PoA (2012-03-17). This is the date on which the first unit was installed and the signing of End-User agreement^{/TPA/}. Thus as per paragraph 7(d) of PoA Procedures (EB 55 Annex 38) and of Guidelines on the Demonstration and Assessment of Prior Consideration of the CDM (EB 49 Annex 22), the CPA is in line with the prior consideration requirements.

Application of methodology / methodological tools

The additionality was justified in accordance with the requirements derived from AMS-I.J. version 1, PoA Procedures, and General Guidelines for SSC CDM methodologies (version 19.0) and Guidelines for demonstrating additionality of micro scale project activities (version 4) and Guidelines on the demonstration of additionality of small-scale project activities EB68 Annex27 Ver09.0 (Previously known as Attachment A of Appendix B to simplified modalities and procedures of small scale CDM project activities).

The project activity is classified as small scale project as per EB 61 Annex21 paragraph 4 (d) i.e., the maximum installed in any CPA be less than 64000 m².

Apart from that the project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and the size of each unit is no larger than 5% of the small-scale CDM thresholds; i.e. 3000 MWh of energy savings per year.

Thus the PoA falls under positive list of projects as per EB 68 Annex 27 paragraph 2c .considered additional.

At the time of the webhosting of the PP intended to use Micro scale additionality guidelines and small scale guidelines as separate approach but after EB 68 Annex 27 existence the PoA- is additional for both the approaches.

Summary

- The starting date of the project activity complies with the glossary of terms (Version 5), and EB 55, Annex 38 guidelines.
- As per the Guidelines for demonstrating additionality of small scale project activities, the project is additional.
- All the arguments and parameters in the POA-DD are well evidenced.
- No E- and E+ policies affect the baseline scenario

Nevertheless CAR PoA-E4 is raised and closed.

5.2.6 Monitoring Methodology

The DOE confirms that the monitoring plan of the PoA is in compliance with the applied monitoring methodology AMS-I.J.

5.2.7 Monitoring Plan

As per methodology paragraph 13 all installations have to undergo an acceptance test for proper operation in compliance with manufacturer specifications within three months of installation.

The following parameters are monitored

- (i) Total Collector area in operation under a CPA, (each collector sytem will accumulate the credit from the date on which the CPA is added to the PoA or the date on which the end user agreement is signed whichever is later)
- (ii) Number of People in each residential unit
- (iii) Volume of hot water consumed/utilized
- (iv) Temperature of the hot water
- (v) Temperature of the cold water
- (vi) Pump electricity consumption (for forced draft system) for project emissions.

The emission reduction calculations of the PoA are in compliance with the annex 1 of the methodology AMS- I.J.

If the PoA uses stipulated energy savings for very small systems in residential units with individual capacity less than or equal to 8 m² of collector area, then it is taken 450 kWh of energy savings per m² of the collector area per year. The monitor parameter required for this estimation is the percentage of collector area is still

working as per manufactures standard. This parameter is estimated by using general guidelines for sampling and surveys for SSC project activities EB 69 and annex 5. The CME intended to go for annual inspection and as such the estimated sample size is 100 based on the following

- (i) 90/10 confidence/precision level
- (ii) Considering maximum of 42,666 systems (considering 1.5 m² as the minimum collector size for ETC system)
- (iii) Expected proportion as 90 % (for achieving higher level of reliability and based on the manufacture association certificate^{/MAC/} that 90% of the collectors is expected to be in operational till the life time).
- (iv) Response rate of 90% and
- (v) Simple random sampling as the occupancy and demographics difference is not there across a state, but in any particular location if the demographics difference are there additional samples will be sampled over and above 300.

If the PoA uses system metering for small systems in residential units with individual capacity more than 8 m² and less than 100 m² the average heat gain per m² is arrived by installing meters to measure the flow of water and temperature at which the hot water is supplied for selected samples.

The sample size selected is 35 (rounded up) based on the assumption that

- (i) 90/10 confidence/precision level (annual inspection)
- (ii) Considering maximum of 8000 systems (considering 8 m² as the minimum collector size for each system)
- (iii) Expected proportion as 90 % (for conservative estimation)
- (iv) Margin of error 10%
- (iv) Simple random sampling as the occupancy and demographics difference is not there across a state, but in any particular location if the demographics differences are there, then additional samples will be sampled over and above 35.

Thus the sampling plan proposed is designed properly with the provision for data necessary collection with implementation plan and can be implemented by the CME within the methodological requirements.

If the project PoA uses large systems or commercial systems all systems will be metered. Also all commercial systems will go an annual inspection to check that the system is working in compliance with manufacture specifications and maintenance records will be cross checked.

The following parameters are monitored in the metered systems.

The amount of hot water flown out of the hot water system using flow meters and the temperature raise using temperature recorders (inlet and outlet temperature measured and then calculated).

Overall, it can be stated that the monitoring plan as mentioned in the PoA-DD can be implemented and all the monitoring arrangements are feasible within the project

design. Apart from that the proposed sample size and sampling method is adequate to achieve the minimum confidence/precision requirements and the results can be reproduced and the proposed sampling plan will ensure that samples are randomly selected and are representative of the population (in this case FPC and ETC)

5.2.8 Project Management Planning

Management structure of the monitoring plan is defined in Section A.4.4 and E.7.2 of the PoA-DD, and is assessed to be appropriate for the purpose of the projects monitoring.

There is a complete description in the PoA-DD about the steps to be implemented concerning the monitoring process, including management structure and responsibilities, data collection and recording for each CPA under the PoA, measurement arrangements, QA/QC, storage methods and training.

The overall responsibility for the monitoring will be held by the CME. All monitoring data will be taken by respective CPA implementers by way of electronic end user databases and fed to the CME. Emission reduction calculation will be based on data collected in database system. The database system is confirmed as the data management system especially designed for the PoA to ensure the data accuracy, and to avoid double counting.

The CME has established following operational and management arrangements:

- A record keeping system for each CPA under the PoA and a system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA as explained in point 2 of the CPA inclusion criteria,
- The SSC-CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity. If the each of the independent systems are less than 640 m² for small scale or 214 m² for micro scale then de-bundling is not required.
- The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA by signing the end user agreements.;

Related sections in PoA-DD and CPA-DD substantiate the stated.

Nevertheless CAR PoA-E6 and CAR PoA-An1 are raised and closed.

5.2.9 Crediting Period and PoA Duration

The start date of the PoA has been unambiguously stated in the PoA-DD section B.1, i.e. 2012-03-17 the date of webhosting of the PoA. The PoA duration is stated in the PoA-DD section B.2 as 28 years, which is deemed appropriate as per EB 55 Annex 38.

The start date of the crediting period of the first CPA is 15-02-2013 or the date of registration whichever is later.

Nevertheless CAR PoA-B1 is raised and closed.

5.2.10 Environmental Impacts

Environmental Analysis is chosen to be done at PoA level. The analysis of environmental impacts is not required by the host party according to a notification⁴ by MoEF, GOI which outlines which projects require an EIA.

Since the project does not involve construction, land use change, displacement, direct use of water resources or endangerment of habitat, the DOE is satisfied that no EIA is required. Section C.3 of the PoA-DD provides further information

However as per Paragraph 12 of the methodology FAR PoA – C1 is raised and the verifying DOE should check the dismantling /destroying of the baseline system during the verification period.

Nevertheless FAR PoA-C1 is raised.

5.2.11 Comments by Local Stakeholders

Stakeholder consultation is to be done at CPA level.

5.2.12 CPA Eligibility criteria

A complete list of CPA Eligibility Criteria has been outlined in section A.4.2.2 of the PoA-DD and section B.2 of the generic CPA-DD, and is deemed appropriate and sufficient.

The PoA-DD provides corresponding eligibility criteria established for the inclusion of a CPA under this PoA.

The DOE confirms that the eligibility criteria have been well established and include criteria w.r.t. the applicability of the related methodologies AMS-I.J. version 1, EB 55 Annex 38 requirements, and EB65 Annex 3 § 13 & 14

For further assessment of all eligibility criteria see Annex 6.

CAR PoA-A5 has been raised and successfully closed.

⁴ <http://envfor.nic.in/legis/eia/so1533.pdf>

6 VALIDATION OPINION

M/s G.K. Energy Marketers Pvt. Ltd has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the programme of activities (PoA): "Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board.

In the course of the validation 18 Corrective Action Requests (CARs) and 3 Clarification Requests (CLs) for PoA-DD and 1 Corrective Action Request (CARs) for generic CPA-DD were raised and all have been successfully closed. One FAR has been raised for the project.

The review of the PoA design documentations and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfillment of the stated criteria.

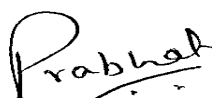
In detail the conclusions can be summarized as follows:

- The PoA is in line with all relevant host country criteria (India) and all relevant UNFCCC requirements for CDM. Project activity approvals have been obtained from DNA of India, from Ministry of Environment and Forest, Government of India, vide the Letter of Approval (HCA) number 4/10/2012-CCC dated 27 June 2012.
- The baseline has been appropriately identified as per the applied methodology.
- The PoA additionality is sufficiently justified in the PoA-DD.
- The eligibility criteria established for CPA inclusion are deemed appropriate and sufficient.
- The monitoring plan is transparent and adequate.
- The calculation of the emission factors and the CPA emission reductions is carried out in a transparent and conservative manner.
- Information on the local stakeholders' consultation by the project participants is sufficiently provided in the PoA-DD. Local stakeholder consultation will be done at CPA-level.
- All information has been also consistently applied in the generic CPA-DD form.

The conclusions of this report show, that the PoA, as it was described in the project documentations, is in line with all criteria applicable for the validation.

New Delhi, 2012-12-18

Essen, 2012-12-18



Prabhat Kumar.

TÜV NORD JI/CDM CP

Validation Team Leader

Rainer Winter

TÜV NORD JI/CDM CP

Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/PDDs/	<p>Programme Design Documents hosted from 2012-03-17 to 2012-04-16:</p> <ol style="list-style-type: none"> 1.PoA-DD: Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme (version 01, 2012-03-14) 2.Generic CPA-DD: Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme Project-ID number (version x, DD-MM-YYYY) 3.Real Case CPA-DD Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme-0001 (version 01, 2012-03-12) <p>Final DDs:</p> <ol style="list-style-type: none"> 1.PoA-DD: Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme (version 04, 2012-12-18) 2.Generic CPA-DD: Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme Project-CPA-XXXX (version 04, 2012-12-18) 3.Real Case CPA-DD Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme- CPA-0001 (version 04, 2012-12-18)
/ODA/	Self Declaration by the CME for not availing ODA dated 15-06-2012.
/HCA/	Host country approval No.4/10/2012-CCC dated 27 June 2012 from MoEF, GOI, DNA of India
/MAC/	Maharashtra Solar Manufacturers Association letter dated 03-09-2012 for the expected percentage of the collectors operating till life time.
/MOC/	Modalities of Communication
/TECH/	Technical details of the solar water heater (Bipsun) and life time certificate.
/TPA/	Sample tripartite agreement between the CME, Supplier and end user dated 16-04-2012.
/PO/	Purchase order invoice for the first solar water heater dated 16-04-2012.

Reference	Document
/ER/	Emission reduction calculation sheet.
/SHCP/	Stake holder consultation documents at the CPA level. Invitation in news paper Loksatya pune and Indian express on 2011-10-05. Minutes of the meeting dated 2011-10-13 Attendance sheet of the meeting conducted on 2011-10-13

Table 7-2: Background investigation and assessment documents

Reference	Document
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/EB 22 Annex 3/	Clarifications on the consideration of national and or Sectoral policies and circumstances in baseline scenarios.
/EB 54 Annex 13/	Guidance for determining the occurrence of de-bundling under a programme of activities (PoA)
/EB 55 Annex 38/	Procedures for Registration of a Programme of Activities as a Single CDM Project Activity and Issuance of Certified Emission Reductions for a Programme of Activities
/EB 63 Annex 23/	Guidelines for demonstrating additionality of micro-scale project activities.
/EB 65 Annex 3/	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities.
/EB69 Annex 5/	Guidelines for sampling and surveys for CDM project activities and programme of activities (version 02.0)
/EB69 Annex 4/	Standard for sampling and surveys for CDM PAs and PoAs (version 03.0)
/EB 68 Annex 27/	Guidelines on the demonstration of additionality of small-scale project activities (version 09.0)
/EB 68 Annex 26/	Guidelines for demonstrating additionality of microscale project activities (version 04.0)
/GCP/	UNFCCC: Guidelines for completing the simplified project design document (CDM-SSC-POA-DD) and the form for proposed new small scale methodologies (CDM-SSC-NM)
/GT/	CDM Glossary of terms

Reference	Document
/LTS/	Solar Water Heating System- A Review of Global Experiences – Prepared by MNRE and REEEP – page no 15 outlines that the higher initial investment is a major reason for lower penetration of the technology and page 6 for electricity as baseline.
/IPCC-GP/	IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000
/IPPC-RM/	Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/AMS-I.J/	AMS I.J – Solar water heating Services (SWH) (version 01)
/POA-DDs-T/	CDM-SSC-PoA-DD - Small-Scale CDM Programme of Activities Design Document form (version 01, EB 33 Annex 43) CDM-SSC-CPA-DD - Small-Scale CDM Programme Activity Design Document form (version 01, EB 33 Annex 44)
/POAR/	1. EB 29 Annex 3 - Draft procedures for registration of a programme of activities as a single 2. EB 32 Annex 38 Guidance on the registration of project activities under a programme of activities as a single CDM project activity 3. EB 62 Annex 13 – Guidance on the demonstration and Assessment of prior consideration of the CDM 4. EB 61 Annex 22 - Procedures for review of erroneous inclusion of a CPA 5. EB 62 Annex 5 - Guidelines on the Assessment of Investment Analysis
/TEMPLATE/	1. PoA_form01_v01 - Clean Development Mechanism Small Scale programme Activity Design Document Form (CDM SSC CPA-DD) 2. PoA_form02_v01 - Clean Development Mechanism Small Scale programme Activity Design Document Form (CDM SSC PoA-DD)
/VVM/	CDM Validation and Verification Manual (EB 55 Annex 1)
/VVS/	CDM Validation and verification Standard (EB 65 Annex 4)

Table 7-3: Websites used

Reference	Link	Organization
/dna/	www.ncdma.org	National Clean Development Mechanism Agency, India

Reference	Link	Organization
/mnre/	www.mnre.gov.in	Ministry of New and Renewable Energy, Governemnt of India
/mos/	http://mospi.nic.in	Ministry of Statistics Planning and Implementation
/cea/	www.cea.nic.in	Central Electricity Authority
/cd4cdm/	www.cd4cdm.org	UNEP Riso Centre
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹	Date		Name	Organization / Function
/IM04/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Prof. S V Ghaisas	Director of Energy Studies, RTC (Regional Test Centre), University of Pune
/IM04/	V	18-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Rahul Udawant	Quality Manager, RTC,Pune
/IM04/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Prasad Chovdhery	Technical Manager, RTC , Pune
/IM04/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Omkar Shinde	Technical Assistance, RTC ,Pune
/IM04/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	V K Gupta	Sr. Consultant, ICPCI
/IM01/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Hemant Revankar	Bipin Engginers Pvt.Ltd, Pune
/IM01/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Yogesh Ingale	Bipin Engginers Pvt. Ltd, Pune – production supervisor
/IM03/	V	18-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Usha malpote	Bipin Engginers Pvt. Ltd, Pune – coordinator
/IM02/	V	18-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Papiya Chakraborty	Ctran Consulting
/IM02/	V	18-04-2012	<input checked="" type="checkbox"/> Mr.	Surva Majumdar	Ctran Consulting

Reference	Mol ¹	Date		Name	Organization / Function
			<input type="checkbox"/> Ms		
/IM01/	V	18-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> M	Gopal Kabra	GKEMPL –CEO
/IM01/	V	18-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Darshana Rathi	GKEMPL – Project Manager.
/IM01/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Chinchanikar R P	Savemax Solar System Pvt. Ltd –M D
/IM01/	V	19-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Sachin N Humbe	Savemax Solar System Pvt. Ltd – Production Incharge
/IM02/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Manoj Sawant	Savemax Solar System Pvt. Ltd – Operation & Maintenance
/IM04/	V	19-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Mrs Deshmane	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Sandeep Kabdale	End User
/IM01/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Mehul Shah	GKEMPL –CMO
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Shinde U R	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Gadgil	End User
/IM04/	V	19-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Mehta Dattatrey	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Farshid Patel	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> M	Walekar Namdev	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Sanjay Runwal	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Khare Mandakini	End User
/IM04/	V	19-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Shinde Shraddha	End User

Reference	Mol ¹	Date		Name	Organization / Function
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Devidag Bhagat	Plumber
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Deepak Mahajire	Plumber
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Shah Rajesh	Electrician
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Maksod	Plumber
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Ajit Ranade	Society Secretary
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Promod Jani	Society Secretary
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Yashdeep Argale	Plumber
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	M N Patankar	Builder
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	H L Tambolkar	Plumber
/IM04/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	D V Kulkarni	Construction Worker
/IM01/	V	20-04-2012	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Krishna Prasad	GKEMPL –Data Management
/IM01/	V	20-04-2012	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Revathy Phatak	GKEMPL – Coordinator/ Secrutiny.

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Validation Protocol
- A2:** Assessment of Baseline Identification
- A3:** Assessment of Financial Parameters
- A4:** Assessment of Barrier analysis
- A5:** Outcome of the GSCP
- A6:** Eligibility Criteria Assessment
- A7:** Appointment certificates of the team members

ANNEX 1: VALIDATION PROTOCOL

Table A-1-1: CDM-POA-DD Requirements Checklist

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
A. General Description of the Programme of Activities				
A.1. Title of the PoA	<i>Document information shall be checked</i>			
A.1.1. Are title, current version number and the date of document completion given in section A.1 of the PoA-DD?	<p><i>Description:</i></p> <p>The title of the PoA-DD, the version number and the date of completion are appropriately provided under section A.1 of PoA-DD.</p> <p><i>Justifications of evidence:</i></p> <p>During the document review, the PoA-DD has been checked.</p> <p><i>Conclusion:</i></p> <p>No incompleteness has been identified, the requirement is fulfilled.</p>	/PDDs/	OK	OK
A.1.2. Has the latest version of the CDM-SSC-POA-DD form been applied? (EB 55 Annex 1, § 55) <i>The latest version is available at</i> http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html	<p><i>Description:</i></p> <p>The PoA-DD has been prepared in accordance with version 01 of the CDM-SSC-POA-DD template which can be submitted for registration till 2012-09-30 (24:00 GMT) as per EB 65 Meeting report as per the following timeline for VVM and VVS (http://cdm.unfccc.int/Reference/Manuals/VVM and VVStimeline.</p>	/unfccc/ /PDDs/	OK	OK

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	<p>pdf)</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD has been checked against the CDM-SSC-POA-DD template available on UNFCCC website: http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html</p> <p><i>Conclusion:</i></p> <p>The valid version of the CDM-SSC-POA-DD template has been applied.</p> <p>However the section D.7.1 is wrongly mentioned in the template and same is corrected to E.7.1</p>			
<p>A.1.3. Has the POA-DD been duly filled w.r.t. all sections in accordance with the latest guidance(s) and procedures and all information are consistently described?</p> <p>(EB 55 Annex 1, §§ 56, 57)</p>	<p><i>Description:</i></p> <p>The validation team has identified few incomplete sections and lack of information's in various sections of the PoA-DD. The latest guideline to complete the CDM-SSC-POA-DD is published in EB 66, Annex 12.</p> <p><i>Justifications of evidence:</i></p> <p>Thorough review of the PoA-DD and comparing with CDM SSC-POA-DD template and guidelines to complete the report. http://cdm.unfccc.int/Reference/Guidclarif/index.html#reg</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A1 is raised.</p>	<p>/unfccc/ /PDDs/ /POA-DDs-T/</p>	<p>CAR PoA- A1</p>	<p>OK</p>
<p>A.2. Description of the PoA</p>	<p><i>Description regarding the general operating and implementing framework, the policy measure and the voluntary action shall be checked</i></p>			

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<p>A.2.1. Has a sufficient description of general operating and implementing framework of the PoA been given?</p> <p>(EB 55 Annex 38, § 6)</p>	<p><i>Description:</i></p> <p>The general operating and implementing framework of the PoA has been stated and elaborated in the webhosted PDD.</p> <p><i>Justifications of evidence:</i></p> <p>By reviewing the PoA-DD, the applied methodology and by means of on-site visit.</p> <p><i>Conclusion:</i></p> <p>Sufficient description of general operation and implementation framework of the PoA is provided in the PoA-DD.</p>	<p>/unfccc/ /POA-DDs-T/ /PDDs/ /IM01/</p>	OK	OK
<p>A.2.2. Is the PoA describing the policy/measure or stated goal that the PoA seeks to promote in a transparent and sufficient manner?</p> <p>(EB 55 Annex 38, §6 (c))</p> <p><i>This encompasses incentive schemes and voluntary programmes, which leads to anthropogenic GHG emission reductions or net anthropogenic greenhouse gas removals by sinks.</i></p>	<p><i>Description:</i></p> <p>The PoA-DD states the policy of the PoA which describe about the goal taken by MNRE –UNDP/GEF to promote the SWH technology throughout India and its union territories. The main objective to initiate the installation of SWH is backed up by National Solar Mission (a Mission under National Climate Change Action Plan) of India.</p> <p><i>Justifications of evidence:</i></p> <p>By reviewing the PoA-DD, the applied methodology and by means of on-site visit and publicly available information.</p> <p><i>Conclusion:</i></p> <p>Thus it is concluded that the PoA describe the policy/measure and goal of the PoA to promote SWH in transparent manner. The financing related to the installation and maintenance is ensured to financing burden and other issues related to the end users. The goal leads to the reduction in anthropogenic GHG emission</p>	<p>/unfccc/ /POA-DDs-T/ /PDDs/ /IM01/ /MNRE/</p>	OK	OK

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	reduction.			
A.2.3. Has a confirmation been given that the proposed PoA is a voluntary action by the coordinating/managing entity? (EB 55 Annex 38, §6(d))	<p><i>Description:</i></p> <p>Section A.2 of the PoA-DD confirms that the proposed PoA is a voluntary action.</p> <p><i>Justifications of evidence:</i></p> <p>The validation team checked the PoA-DD and UNFCCC guidelines and interview with the CME.</p> <p><i>Conclusion:</i></p> <p>The PP confirms that the proposed PoA is a voluntary initiative in the webhosted PoA-DD.</p>	/unfccc/ /PDDs/	OK	OK
A.2.4. Will the PoA create other environmental or social benefits than GHG emission reductions? (EB 55 Annex 1, §§ 125 – 127) <i>Describe the other positive aspects not related to GHG emission reduction on the environment.</i>	<p><i>Description:</i></p> <p>The letter of approval from the host party India is pending to confirm that the PoA creates other benefits besides GHG emission reductions.</p> <p><i>Justifications of evidence:</i></p> <p>By checking the PoA-DD and following the requirements of the VVM, at this point the validation team is unable to determine this in the absence of a letter of approval. During the on site visit, it was identified that the letter of approval from DNA of India has been pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised</p>	/PDDs/ /VVM/ /HCA/	CAR PoA- A2	OK
A.2.5. Has information regarding the annual average emission reductions of the PoA or the	<i>Description:</i>	/PDDs/	CAR PoA-	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
1 st CPA over the first crediting period been included in the description of the PoA? <i>PoA Requesting for Registration uploading step 4 requirement.</i>	Information regarding the annual average emission reductions of the PoA or the 1 st CPA over the first crediting period has not been included in the description of the PoA. <i>Justifications of evidence:</i> Section A.2 of the PoA-DD was checked by the validation team. <i>Conclusion:</i> This information has to be included in the PoA description, hence CAR PoA-A1 is raised		A1	
A.3. CME and Participants of PoA	<i>Description regarding the CME and the project participants shall be included</i>			
A.3.1. Does the section A.3 of the POA-DD include identification of the coordinating/managing entity (a private or public entity), Host Party(ies) and PoA participants? (EB 55 Annex 38, §4, 6 (a)) <i>Project participants may or may not be involved in one of the CPAs related to the PoA. The operators of individual CPAs are not required to be project participants. CDM programme participation is only recorded at the PoA level. (EB 55 Annex 38, §8)</i>	<i>Description:</i> The PoA-DD has identified M/s G K Energy Marketers Pvt. Ltd as the coordinating/managing entity, responsible for the development, implementation, and monitoring of the PoA. <i>Justifications of evidence:</i> The PoA-DD was checked. <i>Conclusion:</i> M/s G K Energy Marketers Pvt. Ltd is the CME.	/PDDs/	OK	OK
A.3.2. Is there any Party directly involved as project participant, and if yes, is that Party's contact details included in annex 1 of the PoA-DD and is the information provided internally consistent with section A.3 of the PoA-DD?	<i>Description:</i> According to section A.3 and Annex 1 of the PoA-DD, no party is directly involved apart from the mentioned CME. <i>Justifications of evidence:</i>	/PDDs/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Concl^usion	Final Concl^usion
(EB 55 Annex 1, § 52)	<p>Section A.3 and Annex 1 of the PoA-DD were checked.</p> <p><i>Conclusion:</i></p> <p>No other party other than M/s G K Energy Marketers Pvt. Ltd is involved in the project. The information provided internally are consistent with section A.3 of the PoA-DD.</p>			
<p>A.3.3. Has it been confirmed by the MOC that Coordinating/managing entity of the PoA communicates with the Board, and all Project participants information in the MoC is consistent with the PoA-DD? (EB 55 Annex 38, §11)</p> <p><i>Procedures for modalities of communication between project participants and the Executive Board shall apply, with the exception that the coordinating/managing entity shall be either sole or joint focal point for each area of communication. The limit of joint focal points for the programme shall be 5, or equal to the number of host Parties if greater than 5.</i></p> <p><i>Besides, as per the UNFCCC secretariat/CDM Team's request, following points shall also be checked by DOE before submitting request for registration:</i></p> <ul style="list-style-type: none"> • No modifications to the template/form (e.g., modifying or deleting sections of the form) should be made; • Each document (MOC statement including the Annex 1) should be clearly dated; • Title of the project and names of project participants and focal points should be fully consistent with those indicated in all other project documentation submitted at the request for registration stage (e.g., PDD, LOAs, etc.); • Focal point scopes should be clearly and correctly indicated (e.g., one focal point entity cannot be designated with 'sole' 	<p><i>Description:</i></p> <p><input type="checkbox"/> All requirements below have been fulfilled by the submitted MoC at the time of requesting registration:</p> <ol style="list-style-type: none"> (1) The MoC confirms that the CME of the PoA communicates with the CDM Executive Board; (2) The CME is either sole or joint focal point for each area of communication; (3) Number of joint focal points for the PoA is no more than 5, or equal to the number of host Parties if greater than 5. (4) No modifications to the template/form have been made; (5) Each document (MOC statement including the Annex 1) have been clearly dated; (6) Title of the project and names of CME and project participants and focal points have been fully consistent with those indicated in all other project documentation submitted at the request for registration stage (e.g., PDD, LOAs, etc.); (7) Focal point scopes have been clearly and correctly indicated; (8) Contact details and specimen signatures of focal point entities including those of project participants in Annex 1 have been correctly entered. (9) All inputs are typed in without hand-written. <p><input type="checkbox"/> Not all requirements above have been fulfilled by the submitted</p>	/MOC/	CAR PoA-A2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Concl sion	Final Concl usion
<p><i>authority while another focal point entity is designated with 'joint' authority for the same scope);</i></p> <ul style="list-style-type: none"> • <i>Contact details and specimen signatures of focal point entities including those of project participants in Annex 1 should be correctly entered:</i> <ul style="list-style-type: none"> - <i>only one telephone, fax, e-mail contact should be entered per authorized signatory. In cases where additional contact details are included, only the first indicated information will be taken into account and only the official business address of the proposed entity should be provided on the F-CDM-MOC form;</i> - <i>the Statement of Agreement in Section 3 should be signed by one authorized signatory for each project participant;</i> - <i>signatures made available in Section 3 should correspond to those indicated in the related Annex 1 document;</i> - <i>focal point entities who are not designated as project participants should not sign Section 3.</i> 	<p>MoC at the time of requesting registration and following issues have been identified and corrections are needed:</p> <p><input checked="" type="checkbox"/> At time of writing this draft validation report the MoC has not yet been submitted by the PP to the validation team, thus a finding is raised. After receiving the MoC, all requirements above will be checked by the validation team before closing this finding.</p> <p><i>Justifications of evidence:</i></p> <p>During the on site visit, it was identified that the MOC is pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised</p>			
<p>A.3.4. Have the coordinating/managing entity and all Project Participants listed in section A.3 of the POA-DD obtained letter of approvals on their participation in the PoA respectively?</p> <p>(EB 55 Annex 38, §9) (EB 55 Annex 1 §44, 51, 52)</p> <p><i>Indicate whether a letter of approval has been received, with a clear reference to the supporting documentation.</i></p> <p><i>Indicate whether this letter was provided to the validation team by the project participants or directly by the DNA.</i></p> <p><i>Letters of approval shall be issued in accordance with the guidance provided by the CDM Executive Board (EB16, Annex 6)</i></p>	<p><i>Description:</i></p> <p>At the time of the preparation of draft validation report, the letters of approval from National CDM Authority, under the Ministry of Environment and Forests, Government of India, (the Designated National Authority in India) is pending.</p> <p><i>Justification of evidences:</i></p> <p>During the on site visit, it was identified that the letter of approval from DNA of India has been pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised.</p>	<p>/HCA/</p>	<p>CAR PoA-A2</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>A.3.5. Does each of the written approvals confirm the following information:</p> <ul style="list-style-type: none"> i) that the corresponding party is a Party to the Kyoto Protocol; ii) that the participation is voluntary; iii) that the project contributes to the sustainable development in the country (only for host country approval(s)); iv) that the project participant's information is exactly the same as in the PoA-DD; v) that the PoA title referred in the approvals is consistent with the one in the POA-DD submitted for registration, or is there an additional specification of the PoA, e.g. POA-DD version number; vi) that the CME is authorized for its coordination and implementation of the PoA from each Host Party (only for host country approval(s)); vii) that the approvals are unconditional w.r.t. the above points? <p>(EB 55 Annex 1 §45 (a-d), 46, EB 55 Annex 38 §10)</p> <p><i>CME's coordination of the PoA can be authorized in the letters of approval from each Host Party or in a separate confirmation letter from each Host Party.</i></p>	<p><i>Description:</i></p> <p>At the time of the preparation of draft validation report, the letters of approval from National CDM Authority, under the Ministry of Environment and Forests, Government of India, is pending</p> <p><i>Justification of evidences:</i></p> <p>During the on site visit, it was identified that the letter of approval from DNA of India has been pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised.</p>	<p>/HCA/</p>	<p>CAR PoA- A2</p>	<p>OK</p>
<p>A.3.6. Are there any other project participants</p>	<p><i>Description:</i></p>	<p>/HCA/</p>	<p>CAR</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
approved but not listed in the POA-DD? (EB 55 Annex 1, § 52)	<p>At the time of the preparation of draft validation report, the letters of approval from National CDM Authority, under the Ministry of Environment and Forests, Government of India is pending</p> <p><i>Justification of evidences:</i></p> <p>During the on site visit, it was identified that the letter of approval from DNA of India has been pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised.</p>		PoA- A2	
<p>A.3.7. Are the approvals issued from organizations listed as DNAs on the UNFCCC CDM website?</p> <p>(EB 55 Annex 1 §§ 44, 47, 48, 49 (b), 49 (c), 53)</p> <p><i>Indicate the means of validation employed to assess the authenticity, i.e. in case of doubt whether LoA has been verified with the DNA. Further describe which entity submitted the LoA for validation.</i></p>	<p><i>Description:</i></p> <p>At the time of the preparation of draft validation report, the letters of approval from National CDM Authority, under the Ministry of Environment and Forests, Government of India is pending</p> <p><i>Justification of evidences:</i></p> <p>During the on site visit, it was identified that the letter of approval from DNA of India has been pending.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A2 is raised.</p>	/HCA/	CAR PoA- A2	OK
A.4. Technical description of the PoA	<i>Location, boundaries, technical description, eligibility criterion, additionality, operational and management plan as well as monitoring plan shall be addressed.</i>			
A.4.1. Location of the PoA				
A.4.1.1. Host parties	<i>Location of the PoA shall be addressed and checked.</i>			

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
A.4.1.1. Have all host countries been correctly listed in section A.4.1.1 of the PoA-DD? (EB 55 Annex 1, § 52)	<p><i>Description:</i></p> <p>The host country India has been correctly listed in section A.4.1.1 of the PoA-DD</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section A.4.1.1 was checked</p> <p><i>Conclusion:</i></p> <p>Government of India is the only host country as per section A.3 of the PoA-DD.</p>	/PDDs/	OK	OK
A.4.1.2. Physical / Geographical boundary	<i>Assessment of physical / geographical boundaries of the PoA and application of national and sectoral policies / regulations within the defined boundary.</i>			
A.4.1.2.1. Does the POA-DD include a definition of the boundary for the PoA in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented? (EB 55 Annex 38, §6(b))	<p><i>Description:</i></p> <p>The PoA-DD defines the geographical boundary of the PoA as India including all the states and union territories of India.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD was checked</p> <p><i>Conclusion:</i></p> <p>The PoA boundary is defined as India and its union territories.</p>	/PDDs/	OK	OK
A.4.1.2.2. Has a clear map with English translations been provided, which unambiguously delineates the geographical boundary of the PoA?	<p><i>Description:</i></p> <p>Section A.4.1.2 of the PoA-DD contains a map of the geographical boundary of the PoA. However, the DOE is not able to distinguish the union territories in the Map.</p> <p><i>Justifications of evidence:</i></p>	/PDDs/	CAR PoA- A2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
	<p>PoA-DD has been checked.</p> <p><i>Conclusion:</i></p> <p>Section A.4.1.2 is not filled as per requirements.</p> <p>CAR PoA-A2 is raised.</p>			
<p>A.4.1.2.3. Are all applicable national and/or sectoral policies and regulations within that chosen boundary reflected in the determination of the baseline?</p> <p>(EB 55 Annex 38, §6(b))</p>	<p><i>Description:</i></p> <p>The project proponent has not demonstrated consideration of all applicable national and/or sectoral policies and regulations in the host county in baseline determination.</p> <p><i>Justifications of evidence:</i></p> <p>The validation team has checked the PoA-DD and CPA-DD.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E3 was raised.</p>	/PDDs/	CAR PoA-E3	OK
A.4.2. Description of a typical CPA	<i>The description of the technology and the eligibility criteria shall be checked.</i>			
<p>A.4.2. Has the PoA-DD unambiguously defined a CDM programme activity (CPA) under the PoA?</p> <p>(EB 55 Annex 38, §6)</p>	<p><i>Description:</i></p> <p>CPA is the installation of SWH systems in new activities or retrofit activities in residential or commercial establishments that displaces electricity or fossil fuels with up to 64,000m² of collector area under small scale or with up to 21,428 m² collector area under micro using MNRE/ BIS approved FPC/ETC collectors. However forced draft systems are not mentioned.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD and UNFCCC guidelines have been checked.</p>	/PDDs/	CAR PoA-A4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	<i>Conclusion:</i> CAR PoA-A4 is raised.			
A.4.2.1. Technology or measures to be employed by the CPA	<i>The description of the technology / measures shall be checked.</i>			
<p>A.4.2.1.1. Does the PoA-DD contain a clear, accurate and complete description of the CPAs with regard to the technology / measures to be used?</p> <p>(EB 55 Annex 1, §§ 58, 59; EB 55 Annex 38, §6(f))</p> <p><i>The PoA-DD shall contain a clear description of a typical CPA which provides the reader with a clear understanding of the precise nature of the project activity and the technology / measure to be used.</i></p> <p><i>Describe the process undertaken to validate the accuracy and completeness of the CPA description.</i></p>	<p><i>Description:</i></p> <p>The technology is not sufficiently described.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD has been checked.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A4 is raised.</p>	<p>/PDDs/ /TECH/ /MNRE/</p>	<p>CAR PoA- A4</p> <p>CAR PoA- B2</p>	OK
<p>A.4.2.1.2. Is this description in accordance with the real situation or, in case of Greenfield projects, is it most likely that the project will be implemented acc. to the project description?</p> <p>(EB 55 Annex 1, §§63, 64)</p>	<p><i>Description:</i></p> <p>The technology is not sufficiently described.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD has been checked.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A4 was raised.</p>	<p>/PDDs/ /IM01/</p>	<p>CAR PoA- A4</p>	OK
A.4.2.1.3. In case the project involves alteration of	<i>Description:</i>	/PDDs/	CAR	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>the existing installation or process, is a clear description available regarding the differences between the project and the pre-project situation?</p> <p>(EB 55 Annex 1, §§63, 64)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p>The technology is not sufficiently described.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD has been checked and interview during the onsite visit.</p> <p><i>Conclusion:</i></p> <p>It was confirmed by the CME that the project didn't involve in alteration of the existing installation or process.</p> <p>Nevertheless CAR PoA-A6 is raised.</p>	<p>/IM01/</p>	<p>PoA- A6</p>	
<p>A.4.2.1.4. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?</p> <p><i>Describe the process undertaken to assess the state of the art technology.</i></p>	<p><i>Description:</i></p> <p>Flat plate solar heaters are manufactured as per IS 12933. All the manufacturer and supplier of solar water heater are registered with Ministry of New and Renewable Energy (MNRE). Thus, it can be stated that the project uses equipment that are on par with the stipulated standards.</p> <p>The project activity uses evacuated tube collector, which is primarily made of rows of parallel glass tubes. In the evaporated tube collectors, the heat loss to the environment is minimized. The water piping which is connected to a common header is surrounded by two concentric tubes of borosilicate glass with vacuum in between that acts like a one-way valve for sun's heat, allowing it in to enter but preventing its loss to the environment.</p> <p>In general, for domestic heating purposes, evacuated tube collector systems are more efficient. Also, modularity in the design of evacuated type collectors permits easy extendibility and maintenance.</p> <p><i>Justifications of evidence:</i></p>	<p>/PDDs/ /IM01/</p>	<p>CAR PoA- A4</p>	<p>OK</p>

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	By checking the PoA-DD, sectoral and country knowledge, onsite visit and interviews. <i>Conclusion:</i> Information w.r.t the Natural or Forced draft combination are not mentioned in the PoA-DD. CAR PoA-A4 is raised.			
A.4.2.2. Eligibility criteria for inclusion of a CPA in the PoA	<i>The eligibility criteria shall be checked for appropriateness and completeness</i>			
<p>A.4.2.2.1. Has the definition of eligibility criteria for inclusion of a CPA under the PoA included the following information:</p> <ul style="list-style-type: none"> i) appropriate criteria for demonstration of additionality of the CPA, and ii) all type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility? <p>(EB 65 Annex 3, B)</p> <p><i>Assess the specified eligibility criteria in the POA-DD in order to determine whether or not these criteria are sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA, these requirements shall include, inter alia,</i></p> <ul style="list-style-type: none"> • <i>the means of demonstrating the additionality of the CPA</i> 	<p><i>Description:</i></p> <p><input type="checkbox"/> All eligibility criteria have been clearly described, esp. w.r.t. the following points, and detailed assessments are included in Annex 6 of this report:</p> <ul style="list-style-type: none"> (1) Methodology applicability requirement of the CPA (2) Other methodological / tool requirement of the CPA, (3) Technical requirement of the CPA, including procurement (4) Geographic requirement of the CPA boundary (5) De-bundling criterion for the CPA (6) Confirmation of no double-counting, e.g. to avoid the case of including a new CPA that has been already registered either as CDM project activity or as a CPA of another PoA, as well as internal double counting within all CPAs of this PoA (7) Contractual provisions to ensure that those operating the CPA are aware and have agreed that their activity is being subscribed to the PoA (8) Public funding requirement of the CPA (9) CPA start date not before PoA webhosting date (10) CPA crediting period not exceed the PoA end date (11) Local stakeholder consultation prior to inclusion of the 	<p>/PDDs/ /EB65-A3/</p>	<p>CAR PoA- A5</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>and</p> <ul style="list-style-type: none"> the applicability of the applied methodology. <p>The eligibility criteria represents an essential element of ensuring the smooth functioning of programmatic CDM, therefore the validation team may raise CARs which ensure the ease of application of the eligibility criteria. (EB 55 annex 1 para 167).</p> <p>Detailed assessment on the final criteria are included in the dedicated Annex A-6 of this report.</p>	<p>CPA</p> <p>(12) Environmental analysis requirement of the CPA</p> <p>(13) The additionality assessment criteria for each CPA (as per E.5 particularly in E.5.2 of the PoA-DD are met</p> <p>(14) Monitoring requirement of the CPA, including sampling and scrapping is applicable</p> <p>(15) The CPA shall be approved by the coordinating entity</p> <p>(16) Each eligibility criterion has specified at least one supporting document to be submitted at the stage of CPA inclusion.</p> <p><input checked="" type="checkbox"/> Not all eligibility criteria have been clearly described and following findings have been raised accordingly (after successful closure of all the findings, detailed assessments are to be included in Annex 6 of the final report):</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD and EB 65, Annex 3 was checked.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A5 is raised.</p>			
A.4.3. Assessment and Demonstration of Additionality of the PoA as a whole	<i>The assessment of additionality shall be validated with focus on whether the PoA itself is not a likely baseline scenario.</i>			
<p>A.4.3. Has it been demonstrated that in the absence of the CDM one of the following would have occurred:</p> <ul style="list-style-type: none"> the proposed voluntary coordinated action would not be implemented, or 	<p><i>Description:</i></p> <p>The stated goal of the related CDM programme activity is defined in the PoA-DD and tries to demonstrate the following situation in the absence of the programme activity:</p> <p><input checked="" type="checkbox"/> The proposed voluntary measure would not be implemented.</p>	/PDDs/	CAR PoA-E3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<ul style="list-style-type: none"> the mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region, or that the PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation. (EB 55 Annex 38, §6(e)) 	<p><input type="checkbox"/> The mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region.</p> <p><input checked="" type="checkbox"/> The PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD has been checked and by means of sectoral knowledge of the validation team.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E3 is raised.</p>			
A.4.4. Operational, management and monitoring plan for the PoA	<i>The operational and management arrangements shall be assessed</i>			
A.4.4.1. Operational and management plan	<i>The operational and management plan shall be assessed.</i>			
<p>A.4.4.1.1. Has the coordinating/managing entity established the operational and management arrangements for the implementation of the PoA, which includes a record keeping system for each CPA under the PoA?</p> <p>(EB 55 Annex 38, §6(i))</p> <p><i>The arrangements shall be suitable and sufficient to ensure that the CME:</i></p>	<p><i>Description:</i></p> <p>Section A.4.4.1 of the PoA-DD states the operational and management arrangements which include unique identification and record keeping system to be implemented for each CPA. However, the information is not sufficient.</p> <p><i>Justifications of evidence:</i></p> <p>Section A.4.4.1 of the PoA-DD and guidelines</p> <p><i>Conclusion:</i></p>	<p>/PDDs/ /EB65-A3/</p>	<p>CAR PoA- A7</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<ul style="list-style-type: none"> will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme. <p>(EB55 annex 1, para 166)</p>	CAR PoA-A7 was raised			
<p>A.4.4.1.2. Are procedures identified for data management?</p> <p>(EB 55 Annex 1 123 (b))</p> <p>Check whether appropriate provisions are considered for data management including responsibilities, what records to keep, storage area of records and how to process performance documentation.</p> <p>Check further the data archiving provisions for the project activity and ensure that provisions are made to archive data for the whole crediting period + 2 years.</p>	<p><i>Description:</i></p> <p>Procedures for data management were described in section A.4.4.1 of the PoA-DD. However, the information is not sufficient.</p> <p><i>Justifications of evidence:</i></p> <p>Section A.4.4.1 of the PoA-DD has been checked against all required guidelines.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A7 is raised</p>	<p>/PDDs/ /EB65-A3/</p>	<p>CAR PoA- A7</p>	OK
<p>A.4.4.1.3. Has the arrangements included a system/ procedure to avoid double accounting, e.g., to avoid the case of including a new CPA that has been already registered either as CDM project activity or as a CPA of another PoA?</p> <p>(EB 55 Annex 38, §6(i))</p>	<p><i>Description:</i></p> <p>The arrangements as per A.4.4.1 of the PoA-DD include a unique identification number of each system. Details of implementation and evidence are still pending</p> <p><i>Justifications of evidence:</i></p> <p>Section A.4.4.1 of the PoA-DD was checked.</p> <p><i>Conclusion:</i></p>	<p>/PDDs/ /EB65-A3/</p>	<p>CAR PoA- A7</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	CAR PoA-A7 is raised.			
<p>A.4.4.1.4. Does a typical CPA qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II?</p> <p>(EB 55 Annex 1, § 136 (a) and EB 47 Annex 32 § 3) <i>Check if the proposed CPAs qualify within the threshold of one or more of the three possible types of small scale project activities.</i></p>	<p><i>Description:</i></p> <p>Information regarding CPA applicability criteria and threshold limit of SSC guidelines are provided at PoA design document in order to determine the small-scale categories, methodological choices, and tools.</p> <p><i>Justifications of evidence:</i></p> <p>Sections A.4.3 of the PoA-DD were checked against the criteria for SSC-CDM.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A7 is raised.</p>	<p>/PDDs/ /EB65-A3/</p>	<p>CAR PoA- A7</p>	OK
<p>A.4.4.1.5. Has it been ensured that the small scale CPA is not a de-bundled component of another CPA or large scale CDM project activity?</p> <p>(EB 55 Annex 1, § 136 (c)) <i>Describe the steps taken to validate this issue. Pl. refer to the Compendium of guidance on debundling (EB 54, Annex 13).</i></p>	<p><i>Description:</i></p> <p>Yes, the eligibility criteria ensures that all CPA subsystems achieve less than 1% of small scale threshold defined by the methodology, and in line with EB 54 Annex 13, and hence all CPA adhering to the eligibility criterion are exempted from performing de-bundling check.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD was checked and the Guidance for determining the occurrence of de-bundling under PoA in EB 54 Annex 13 par 10.</p> <p><i>Conclusion:</i></p> <p>The small scale CPA is not a de-bundled component of another CPA or large scale CDM project activity.</p> <p>Nevertheless CAR PoA-A7 is raised.</p>	<p>/PDDs/ /EB54-A13/</p>	<p>CAR PoA- A7</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>A.4.4.1.6. Has the CME made provisions to ensure that the CPA operators are aware of and have agreed that their activity is being subscribed to the PoA?</p> <p><i>Describe the steps undertaken by the CME. Check, if deemed necessary, appropriate provisions to meet training needs are in place.</i></p>	<p><i>Description:</i></p> <p>Section A.4.4.1 doesn't state that the entities joining the PoA shall cede the rights to the CME.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD was checked</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A7 is raised.</p>	/PDDs/ /EB68-A27/	CAR PoA-A5	OK
<p>A.4.4.1.7. Does the management plan make provisions for meeting training and maintenance needs of the implementation of the PoA?</p> <p><i>Describe the process undertaken to assess the maintenance and training needs.</i></p>	<p><i>Description:</i></p> <p>No, the management plan does not make provisions for meeting and training needs of the implementation of the PoA.</p> <p><i>Justifications of evidence:</i></p> <p>Section A.4.4.1 of the PoA-DD was checked and this information is missing.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A7 is raised</p>	/PDDs/	CAR PoA-A7	OK
A.4.4.2. Monitoring plan	<i>The PoA general monitoring plan shall be assessed.</i>			
<p>A.4.4.2.1. If the CME does not wish to have all CPAs verified, has a description of the proposed statistically sound sampling method/procedure to be used by DOEs for verification of the CPA GHG emission reductions been provided?</p>	<p><i>Description:</i></p> <p>The CME has not provided a sufficient description of data collection but has stated that the SSC-CPA would follow the requirements of applied methodology AMS-I.J. A.4.4.2 of the PoA-DD is incomplete as it does not indicate the methods and/or procedures to be used for data collection for system metering method and stipulated</p>	/PDDs/	CAR PoA-A8	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
(EB 55 Annex 38, §6(k)) <i>Please refer to "General Guidelines for Sampling and Surveys for Small-Scale CDM project Activities (Version 01)" (EB 50 Annex 30)</i>	energy saving method. In addition there is no explanation about the sample method adopted for monitoring. <i>Justifications of evidence:</i> PoA-DD has been checked. <i>Conclusion:</i> CAR PoA-A8 is raised.			
A.4.4.2.2. In case the CME opts for a verification method that verifies each CPA, is there a transparent system defined and described in the PoA-DD that ensures: i) no double accounting of ER occurs among all units within all CPAs, and ii) the verification status can be determined any time for each CPA? <i>Please assess the provisions made by the CME.</i>	<i>Description:</i> The transparency and completeness of the meter monitoring as stated cannot be sufficiently ascertained due to scarce information provided. <i>Justifications of evidence:</i> PoA-DD has been checked. <i>Conclusion:</i> CAR PoA-A8 is raised.	/PDDs/	CAR PoA-A8	OK
A.4.5. Public funding of the PoA	<i>In case of public funding this should not lead to diversion of ODA to the PoA</i>			
A.4.5.1. Is there a confirmation that official development assistance has not been diverted to the implementation of the PoA in case public funding is used? (EB 55 Annex 38, §6(n))	<i>Description:</i> Section A.4.5 and Annex 2 of the PoA-DD state that no public funding is involved, and thus no diversion of ODA. Nevertheless, an official declaration has not been provided. <i>Justifications of evidence:</i> PoA-DD, EB 55 Annex 38 par 6	/PDDs/	CAR PoA-A9	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	<i>Conclusion:</i> CAR PoA-A9 is raised			
<p>A.4.5.2. Has it been confirmed whether there are any bilateral or multilateral fund project participants involved in the PoA, and if yes, the following information shall be provided to the DOE:</p> <ul style="list-style-type: none"> • Full official name of the entity fund; • Name of company managing the fund; • Party(ies) authorizing participation of the Fund; • DNA approval of voluntary participation in the PoA and confirmation that it has ratified the Kyoto Protocol; • DNA authorization of the fund to the project participant (can be combined with the approval document) (EB 55 Annex 1, para 102 (b)) <p><i>Multilateral funds do not necessarily require written approval from each participant's DNA. However those not providing a written approval may be giving up some of their rights and privileges in terms of being a Party involved in the project. (Glossary of CDM terms (version 5))</i></p>	<p><i>Description:</i></p> <p>No confirmation has been done whether there are bilateral or multilateral fund project participants involved in the PoA.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD was checked, EB 51 Annex 3 par 100(b) as well as all provided documents.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-A9 is raised for this clarification.</p>	/PDDs/	CAR PoA-A9	OK
B. Duration of the PoA				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
B.1. Starting Date of the PoA	<i>The starting date shall be assessed</i>			
<p>B.1.1. What is the starting date of the PoA? Is it reasonable?</p> <p><i>The crediting period of the PoA should be renewed every seven years (every 20 years for A/R PoA) from the start date of the lifetime of the PoA.</i></p> <p><i>Life time of the PoA starts on the date specified in the PoA-DD section B.1 or on the date of registration, whichever is later.</i></p> <p><i>In case of small-scale PoA, the start date must be stated as at least 4 weeks after the estimated submission date;</i></p> <p><i>In case of large-scale PoA, the start date must be stated as at least 8 weeks after the estimated submission date.</i></p> <p><i>(PoA registration uploading requirements step 4)</i></p>	<p><i>Description:</i></p> <p>The starting date of the PoA is mentioned as 2012-03-17, which is as per the webhosting date of the PoA-DD in UNFCCC.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD and interview during the site visit.</p> <p><i>Conclusion:</i></p> <p>The crediting period of the specific CPA-DD is mentioned as 10 years fixed crediting period. Nevertheless CAR PoA-B1 is raised.</p>	<p>/PDDs/ /IM01/</p>	<p>CAR PoA- B1</p>	<p>OK</p>
B.2. Length of the PoA	<i>The length of the PoA shall be assessed</i>			
<p>B.2.1. What is the length/lifetime of the PoA? Is it reasonable?</p> <p><i>PoA duration should not exceeding 28 years (60 years for A/R) (EB 55 Annex 38, §6(h) and 7(d))</i></p>	<p><i>Description:</i></p> <p>The length of the PoA is 28 years as defined in section B.2 of the PoA-DD.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD was checked</p> <p><i>Conclusion:</i></p>	<p>/PDDs/</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	The PoA duration complies with guidelines.			
C. Environmental Analysis				
C.1. Level of Environmental Analysis	<i>The analysis shall be carried out either on PoA or CPA level</i>			
<p>C.1.1. Has it been clearly indicated on which level i.e. PoA level or CPA level, an environmental analysis has been carried out or will be carried out?</p> <p>(EB 55 Annex 38 § 6(l)) Please check whether the indication is in line with the provided documentation.</p>	<p><i>Description:</i></p> <p>It has been clearly indicated that Environmental Analysis is at the PoA level.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section C.1 was checked</p> <p><i>Conclusion:</i></p> <p>It can be confirmed that Environmental Analysis will be carried out at PoA level</p>	/PDDs/	OK	OK
<p>C.1.2. Has a justification sufficiently described in section C.1 of the PoA-DD on the choice of level at which the environmental analysis is undertaken?</p> <p>(EB 55 Annex 38 § 6(l))</p>	<p><i>Description:</i></p> <p>Yes justification has been done why the environmental analysis is done at PoA level. No EIA is required for SWH projects as per the Notification no. SO1533 dated 2006-09-14 issued by the Ministry of Environment and Forests and therefore there is no need to carry out an EIA for implementing the project activity.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section C.2 and C.3 was checked and the MoEF guidelines</p> <p><i>Conclusion:</i></p> <p>Environmental analysis has been justified in the PoA-DD. No EIA is</p>	<p>/MoEF/ /PDDs/</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	required for this project activity.			
C.2. Documentation on the analysis of the environmental impacts	<i>The analysis shall be assessed</i>			
<p>C.2.1. Has an environmental analysis of the PoA as per requirements of the CDM modalities and procedures been undertaken and described in the POA-DD?</p> <p>(EB 55 Annex 38, §6(l)) <i>If this analysis is not undertaken for the PoA but is to be done at the CPA level this shall be described and reflected in the CDM-POA-DD and the CDM-CPA-DD</i></p>	<p><i>Description:</i></p> <p>According to section C.2 and C.3 of the PoA-DD, there are no environmental impacts of Solar Water heating units. There is official confirmation from the authorities in the host country (India) that EIA is not required for these kind of projects.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD was checked</p> <p><i>Conclusion:</i></p> <p>Environmental analysis has been justified in the PoA-DD. No negative impacts identified because of installation of this project activity. No EIA is required for this project activity.</p> <p>Nevertheless CL PoA-C1 is raised.</p>	/MoEF/ /PDDs/	CL PoA- C1	OK
<p>C.2.2. Are transboundary environmental impacts considered in the analysis?</p> <p>(EB 55 Annex 1, §§ 131 – 133)</p> <p><i>Check the documents and local official sources / expertise regarding transboundary environmental impacts.</i></p>	<p><i>Description:</i></p> <p>According to section C.2 of the PoA-DD, there are no environmental impacts of Solar Water heating units.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD was checked</p> <p><i>Conclusion:</i></p> <p>Nevertheless CL PoA-C1 is raised.</p>	/MoEF/ /PDDs/	CL PoA- C1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
C.3. Environmental impact Analysis Requirements	<i>It shall be assessed whether host Party laws / regulations require an EIA for a typical CPA</i>			
<p>C.3.1. Are there any Host Party laws/ regulations require for an Environmental Impact Assessment (EIA) for a typical CPA that will be included in the PoA?</p> <p>(EB 55 Annex 1, § 136 (d)) <i>Check the relevant national environmental legislation.</i></p>	<p><i>Description:</i></p> <p>According to section C.2 and C.3 of the PoA-DD, there are no environmental impacts of Solar Water heating units. There is official confirmation from the authorities in the host country (India) about EIA is not required for these kind of projects.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD and EIA notification from MoEF was checked.</p> <p><i>Conclusion:</i></p> <p>Environmental analysis has been justified in the PoA-DD. No negative impacts identified because of installation of this project activity. No EIA is required for this project activity.</p>	/MoEF/ /PDDs/	OK	OK
<p>C.3.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been appropriately carried out and if applicable duly approved?</p> <p>(EB 55 Annex 1, §§ 131 – 133) <i>Check the EIA and its approval, if applicable.</i></p>	<p><i>Description:</i></p> <p>According to section C.2 and C.3 of the PoA-DD, there are no environmental impacts of Solar Water heating units. There is official confirmation from the authorities in the host country (India) about EIA is not required for these kind of projects.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD and EIA notification from MoEF was checked.</p> <p><i>Conclusion:</i></p> <p>Environmental analysis has been justified in the PoA-DD. No negative impacts identified because of installation of this project</p>	/MoEF/ /PDDs/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
	activity. No EIA is required for this project activity.			
D. Stakeholders' comments				
D.1. Level of Local Stakeholder comments	<i>The analysis shall be carried out either on PoA or CPA level</i>			
<p>D.1.1. Has it been clearly indicated on which level i.e. PoA level or CPA level, local stakeholder comments have been or will be invited?</p> <p>(EB 55 Annex 1, §§ 127– 129)</p> <p><i>Please check whether the indication is in line with the provided documentation.</i></p>	<p><i>Description:</i></p> <p>It has been clearly indicated that stakeholder consultation is at the SSC-CPA level.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section D.1 was checked</p> <p><i>Conclusion:</i></p> <p>It can be confirmed that stakeholder consultation will be carried out at CPA level.</p>	/PDDs/	OK	OK
<p>D.1.2. Has a justification sufficiently described in section D.1 of the PoA-DD on the choice of level at which the local consultation is conducted?</p> <p>(EB 55 Annex 38 § 6(m))</p>	<p><i>Description:</i></p> <p>Justification has been provided why the stakeholder consultation is done at CPA level.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section D.1 was checked</p> <p><i>Conclusion:</i></p> <p>Justification of choice of stakeholder consultation at CPA level is sufficiently described in section D.1 of the PoA-DD.</p>	/PDDs/	OK	OK
<p>D.1.3. Does the PoA-DD include provisions in case a stakeholder consultation process is</p>	<p><i>Description:</i></p> <p>The PoA-DD does not state whether the stakeholder consultation</p>	/PDDs/	CL PoA-DD	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
required by regulations/laws in the host country, and if so, to ensure that the stakeholder consultation process is carried out in accordance with such regulations/ laws? (EB55 Annex38 § 6(m) &7(g) EB55 Annex1 § 128)	process is required by regulations/laws. But the stakeholder consultation process is carried out at CPA level. Therefore, the PP has not included any such provisions. <i>Justifications of evidence:</i> PoA-DD has been checked. <i>Conclusion:</i> CL PoA-D1 is raised			
D.2. Brief description how comments by local stakeholders have been invited and compiled.	<i>The description shall be assessed.</i>			
D.2.1. With regard to the PoA, how have local stakeholders' comments been invited prior to the publication of the PDDs and compiled? (EB 55 Annex 38, §6(m); EB 55 Annex 1, §§128– 130) <i>If such comments are to be sought at the CPA level this shall be described and reflected in the POA-DD and the CPA-DD.</i> <i>Check by means of document review and interviews with local stakeholders if and when a local stakeholder consultation process has been carried out, and whether comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited.</i>	<i>Description:</i> Section D.1 of the PoA-DD states that the stakeholder consultation process would be done at CPA level. Furthermore, the PoA-DD does not describe if the process was carried out prior to publication of the PDDs on the UNFCCC website, as per requirements of VVM. Section D.2 of the CPA-DD does not describe how the comments have been invited but states no negative comments have been received. <i>Justifications of evidence:</i> Section D.1 and D.2 of the PoA-DD, and sections D.1, D.2, D.3, D.4 of the CPA-DD have been checked. <i>Conclusion:</i> CL PoA-D1 is raised	/PDDs/ /VVM/	CL PoA- D1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
D.3. Summary of the comments received	<i>The description shall be assessed.</i>			
D.3.1. With regard to the PoA, can the summary provided be assessed as adequate and complete? (EB 55 Annex 1, §§ 128– 130)	<p><i>Description:</i> Section D.3 does not provide any summary as this would be done at CPA level.</p> <p><i>Justifications of evidence:</i> PoA-DD was checked</p> <p><i>Conclusion:</i> The summary would be done at CPA level.</p>	/PDDs/	OK	OK
D.4. Report on how due account was taken of comments received	<i>The description shall be assessed.</i>			
D.4.1. With regard to the PoA, has adequate due account been taken of comments received if any? (EB 55 Annex 1, §§ 128– 130)	<p><i>Description:</i> Section D.3 does not provide any summary as this would be done at CPA level</p> <p><i>Justifications of evidence:</i> PoA-DD was checked</p> <p><i>Conclusion:</i> The summary would be done at CPA level.</p>	/PDDs/	OK	OK
E. Application of a Baseline and Monitoring Methodology				
E.1. Title and reference of the applied				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
methodology				
<p>E.1.1. Does the PoA apply (an) approved, applicable and valid version of CDM methodology (ies) identical on the UNFCCC website?</p> <p>(EB 51 Annex 1, §65, 71)</p> <p><i>The methodology should be approved by the EB for use in a PoA. Describe the steps to determine whether the methodology is correctly quoted and applied by comparing it with the actual text of the applicable version of the methodology available on the UNFCCC CDM website.</i></p>	<p><i>Description:</i></p> <p>The PoA applies AMS-I.J version 01 which is a valid version.</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD and the UNFCCC website have been checked</p> <p><i>Conclusion:</i></p> <p>The PoA applies the correct and valid version of the approved methodology AMS-I.J</p>	<p>/PDDs/ /unfccc/</p>	OK	OK
E.2. Justification of the methodology choice and its applicability to a CPA	<i>The choice described shall be assessed</i>			
<p>E.2.1. Does a typical CPA apply a combination of approved methodologies? If so, has such combination been approved in accordance with "Procedures for approval of the application of multiple methodologies to a programme of activities"?</p> <p>(EB 55 Annex 38, §6(f))</p> <p><i>If a combination of approved methodologies is being applied this combination must be applied to all CPAs and must be applied in a consistent manner.</i></p>	<p><i>Description:</i></p> <p>A typical CPA does not apply a combination of approved methodologies.</p> <p><i>Justifications of evidence:</i></p> <p>By way of document review, like PoA-DD, CPA-DD and checking the UNFCCC webpage.</p> <p><i>Conclusion:</i></p> <p>CPA does not employ a combination of methodologies.</p>	<p>/PDDs/ /unfccc/</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>E.2.2. Is the justification of the choice of the approved baseline and monitoring methodology (ies) for the typical CPA sufficient?</p> <p>(EB 55 Annex 38, §6(f))</p>	<p><i>Description:</i></p> <p>Section E.2 of the PoA-DD does not sufficiently justify the choice of AMS-I.J methodology for the baseline determination and monitoring.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section E.2, AMS-I.J version 01</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E1 was raised</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA-E1</p>	<p>OK</p>
<p>E.2.3. Can all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein be sufficiently fulfilled by a typical CPA?</p> <p>(EB 55 Annex 1, §§66 (a), 66 (b), 68, 70, 75)</p> <p><i>Describe for each applicability criterion listed in the selected approved methodology the steps taken to assess the information contained in the POA-DD.</i></p>	<p><i>Description:</i></p> <p>See section E.2.2 above.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section E.2, AMS-I.J version 01</p> <p><i>Conclusion:</i></p> <p>Response to CAR PoA-E1 pending.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA-E1</p>	<p>OK</p>
<p>E.2.4. Has a typical CPA been demonstrated as in accordance with all other PoA specific stipulations and requirement mentioned in the methodology and relevant tools/guidance, e.g., leakage?</p> <p>(EB 55 Annex 1, §70)</p>	<p><i>Description:</i></p> <p>See section E.2.2 above.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section E.2, AMS-I.J version 01</p> <p><i>Conclusion:</i></p> <p>Response to CAR PoA-E1 pending.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA-E1</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<i>Describe the steps taken to check whether the proposed CPA meets all the other PoA specific stipulations and /or limitations mentioned in all sections of the approved methodology selected.</i>				
E.3. Description of the sources and gases included in the CPA boundary	<i>Project Boundaries are the limits and borders defining the GHG emission reduction in project.</i>			
<p>E.3.1. Are the project's spatial boundaries (physical) of the CPAs to be included are clearly defined?</p> <p>(EB 55 Annex 1, §§67 (a), 78 - 80)</p> <p><i>The PDD shall correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity.</i></p> <p><i>Provide information on how the validation of the physical boundary has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	<p><i>Description:</i></p> <p>According to paragraph 6 of the AMS-I.J version 01, the project boundary includes the physical, geographical sites of the low greenhouse gas emitting technologies for SWH units by the project activity. Section E.3 of the PoA-DD does not define the physical boundaries of the CPAs to be included.</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD section E.2, AMS-I.J version 01</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E2 is raised.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E2</p>	OK
<p>E.3.2. Are all sources and GHGs included in the project boundary as required in the applied methodology?</p> <p>(EB 55 Annex 1, §§67 (a), 78 - 80)</p> <p><i>Provide information on how the validation of the GHGs and sources has been performed either based on reviewed</i></p>	<p><i>Description:</i></p> <p>Section E.3 of the PoA-DD contains all possible emission sources within the project boundary. Only CO₂ is found to be the main source of emissions in the baseline and included in the baseline emissions. Similarly project emissions from auxiliary electricity consumption are expected.</p>	<p>/PDDs/ /AMS-I.J/ /IM01/</p>	<p>CAR PoA- E2 CAR PoA-E5</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<i>documented evidence or by describing what was observed/viewed during a site visit.</i>	<i>Justifications of evidence:</i> PoA-DD section E.2, AMS-I.J version 01 and site visit. <i>Conclusion:</i> CO ₂ included is the main source in the project boundary and deemed reasonable. However, the physical boundary of the PoA has not been delineated. CAR PoA-E2 and POA-E5 are raised.			
<p>E.3.3. In case the methodology allows to choose whether a source and/or gas is to be included, is the choice sufficiently explained and justified?</p> <p>(EB 55 Annex 1, §§67 (a), 78 - 80)</p> <p><i>Confirm if the justification provided by the PPs is reasonable, based on assessment of supporting documented evidence provided by the PPs or by onsite observations.</i></p>	<p><i>Description:</i></p> CO ₂ is the only source of GHGs included in the project boundary. The methodology does not indicate which GHGs need to be included. Section E.3 of the PoA-DD mentions that all other gases apart from CO ₂ are not taken into consideration. <p><i>Justifications of evidence:</i></p> Through the document review of the applied methodology the PoA-DD and IPCC guidelines the validation team confirms that CO ₂ is the only source of GHGs which needs to be included in the project boundary, as other GHGs have minor influence. <p><i>Conclusion:</i></p> No further action is necessary	/PDDs/ /AMS-I.J/ /IPCC/	OK	OK
<p>E.3.4. Are provisions in place for the case that a CPA implementation might lead to GHG emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission</p>	<p><i>Description:</i></p> As per methodology and project description, project emissions are expected. <p><i>Justifications of evidence:</i></p>	/PDDs/ /AMS-I.J/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu- sion	Final Concl usion
reductions, which are not addressed by the methodology? (EB 55 Annex 1, §77)	The PoA-DD was checked as well as the applied methodology AMS-I.J version 01, and onsite visit. <i>Conclusion:</i> There are no GHG emissions other than project emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology.			
E.4. Description of how the baseline scenario is identified and description of baseline scenario	<i>The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.</i>			
E.4.1. What possible baseline scenarios have been considered for all CPAs and are they complete according to the methodology? Does the list of alternatives contain the status-quo situation, the project not undertaken as a CDM project as well as all other viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity? (EB 55 Annex 1, §§ 67 (b), 82, §§ 104 – 106) <i>Fill in all alternatives in table A-2.</i> <i>Describe how it was validated that all alternatives are plausible and no plausible alternative is excluded from the consideration.</i>	<i>Description:</i> Section E.4 of the PoA-DD identifies the baseline scenario as electricity to heat low temperature water based on the elimination of other alternatives such as continuation of use of immersion rod type electric heaters, fuel oil based hot water generation option, Gas(LPG) based hot water generation option, SWH without CDM. However, the process of identification of the baseline scenario is not sufficiently explained. <i>Justifications of evidence:</i> By checking the PoA-DD, the AMS-I.J version 01, and template guidelines in the UNFCCC website. <i>Conclusion:</i> CAR PoA-E3 is raised	/PDDS/ /AMS-I.J/ /unfccc/	CAR PoA- E3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>E.4.2. Have the baseline alternatives sufficiently taken into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?</p> <p>(EB55 Annex 1, §§ 85, 87(d); EB55 Annex 38, § 6(b)) <i>Describe whether the PP has shown that all relevant policies and circumstances have been identified and correctly considered in the PDD in accordance with the guidance by the Board. Pl. consider the guidance EB 22 annex 3 (regarding E+ and E- policies).</i></p>	<p><i>Description:</i></p> <p>Section E.4 of the PoA-DD identifies the baseline scenario as electricity to heat low temperature water based on the elimination of other alternatives such as continuation of use of immersion rod type electric heaters, fuel oil based hot water generation option, Gas (LPG) based hot water generation option, SWH without CDM. However, the process of identification of the baseline scenario is not sufficiently explained w.r.t relevant national and/or sectoral policies, macro-economic trends and political aspirations.</p> <p><i>Justifications of evidence:</i></p> <p>By checking the PoA-DD, the AMS-I.J version 01, and template guidelines in the UNFCCC website.</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E3 is raised</p>	<p>/PDDS/ / AMS-I.J/ /unfccc/ /EB22-A3/ /EB55-A38/ /EB65-A3/</p>	<p>CAR PoA- E3</p>	OK
<p>E.4.3. Are the provisions for the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?</p> <p>(EB 55 Annex 1, § 92(a)) <i>Describe whether the documents and sources referred to in the PDD are correctly quoted and clearly referenced.</i></p>	<p><i>Description:</i></p> <p>Section E.4 of the PoA-DD identifies the baseline scenario as electricity to heat low temperature water based on the elimination of other alternatives such as continuation of use of immersion rod type electric heaters, fuel oil based hot water generation option, Gas (LPG) based hot water generation option, SWH without CDM. However, the process of identification of the baseline scenario is not sufficiently explained.</p> <p><i>Justifications of evidence:</i></p> <p>By checking the PoA-DD, the AMS-I.J version 01, the EB 22 Annex 3, EB 55 Annex 38, and template guidelines in the unfccc website.</p> <p><i>Conclusion:</i></p>	<p>/PDDS/ / AMS-I.J/ /unfccc/ /EB22-A3/ /EB55-A38/ /EB65-A3/</p>	<p>CAR PoA- E3</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	CAR PoA-E3 is raised			
<p>E.4.4. What has been identified as the baseline scenario? Has the baseline scenario been determined using conservative assumptions where possible, including relevant references and sources</p> <p>(EB 55 Annex 1, §§80-91)</p> <p><i>Describe the chosen BL scenario, taking into consideration the technology that would be employed and / or the activities that would take place in the absence of the proposed CDM project activity.</i></p> <p><i>Describe whether the choice of the identified baseline scenario is reasonable by validating the <u>key assumptions</u>, <u>calculations</u> and <u>rationales</u> used in the POA-DD. Describe whether these are listed, relevant and <u>conservatively interpreted</u> in the POA-DD.</i></p>	<p><i>Description:</i> The baseline scenario has been identified as the electricity in section E.4 of the PoA-DD. the process of identification of the baseline scenario is not sufficiently explained. However, The development of the baseline scenario and accompanying calculations has to be provided for validation.</p> <p><i>Justifications of evidence:</i> By checking the provided PoA-DD and the applied methodology</p> <p><i>Conclusion:</i></p> <p><input type="checkbox"/> The baseline scenario is reasonable and has been determined using conservative assumptions where possible. Please refer to comments in table A-2.</p> <p><input checked="" type="checkbox"/> The following CARs / CLs have been issued because assumptions used in the baseline determination have been assessed to be not conservative</p> <p>CAR PoA-E3 is raised</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E3</p>	OK
E.5. CPA additionality	<i>The description shall be assessed</i>			
E.5.1. Assessment and demonstration of CPA additionality	<i>The provisions for CPA additionality assessment shall be checked</i>			
<p>E.5.1.1. Does the POA-DD include provision that a typical CPA starting date will be defined in accordance with the CDM glossary of terms and substantiated with reliable evidence?</p>	<p><i>Description:</i> The PoA-DD does not include a provision that a typical CPA starting date be defined in accordance with CDM glossary of terms. This is in accordance with EB 60 Annex 26 par 3 and 4.</p> <p><i>Justifications of evidence:</i></p>	<p>/PDDs/ /unfccc/ /EB60-A26/</p>	<p>CAR PoA- B1</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
(EB 55 Annex 1, §101) <i>Describe the evidence assessed regarding the prior consideration of the CDM (if necessary). Describe whether the evidence to support such consideration is adequately and transparently described in the POA-DD.</i>	By document check of the PoA-DD, EB 60 Annex 26 and the VVM. <i>Conclusion:</i> Prior consideration is not necessary as no CPA will commence prior to the webhosting for PoA validation.			
E.5.1.2. What is the starting date of the 1 st CPA indicated in the real case CPA-DD section A.4.2.1? Is it after the commencement of validation of the PoA, i.e., the date on which the PDDs are first published for global stakeholder consultations? (EB55 Annex 38 §7(d))	<i>Description:</i> The starting date of the first CPA is mentioned as 2012-03-17 which is the same date when the PDDs were published for Global Stakeholder Consultations and the commencement of validation. No evidence has been provided. <i>Justifications of evidence:</i> PoA-DD section B.1, CPA-DD section A.4.2.1 and the UNFCCC website <i>Conclusion:</i> CAR PoA-B1 is raised.	/PDDs/ /unfccc/ /EB 55 Annex 38/	CAR PoA- B1	OK
E.5.1.3. Does the PoA-DD make provisions to describe the additionality justification, which follows the requirements of the applied methodology and/or other methodological tools? (EB 55 Annex 1, §§67 (d), 94) <i>Describe how it is validated that additionality justification is carried out in accordance with the applied methodology and/or applied methodological tools. Further focus your assessment on the reliability and credibility of data,</i>	<i>Description:</i> As per section E.5.1 of the PoA-DD there are two approaches selected to justify the additionality. Approach I CPAs apply a micro scale project activity with threshold limit of less than 15MW _{thermal} . However detailed explanations is missing w.r.t additionality in line with the 'Guidelines for demonstrating additionality of micro scale project activities'. Approach II CPAs which don't fall under micro scale additionality apply Attachment A of Appendix B and Non binding best practice. No explanation w.r.t the barrier and the approach to justify additionality is mentioned in the PoA-DD. <i>Justifications of evidence:</i> By means of documents check, like PoA-DD, and EB 63 Annex 23	/PDDs/ /EB 63 Annex 23/ /VVM/	CAR PoA- E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<i>rationales and assumptions, justifications and documentations provided by the PP.</i>	and the VVM <i>Conclusion:</i> CAR PoA-E4 is raised.			
E.5.1.4. Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)? (EB 55 Annex 1, §109) <i>Describe why the selected analysis method is appropriate under consideration of potential revenues and costs, potential project alternatives and potential available benchmark values.</i>	<i>Description:</i> Additionality is shown within the micro scale limits for Approach-I CPA's. However the choice of benchmark analysis or simple cost analysis is not justified in the PoA-DD. <i>Justifications of evidence:</i> By means of documents check, like PoA-DD, and EB 63 Annex 23 and the VVM <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/ /EB 63 Annex 23/ /VVM/	CAR PoA-E4	OK
E.5.1.5. Is a clear, viewable and unprotected Excel spreadsheet template available for the investment calculation, if applicable? (EB 55 Annex 1, §110) <i>Describe the steps taken to validate this issue.</i>	<i>Description:</i> No spread sheet is submitted for Approach II additionality justification. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA-E4	OK
E.5.1.6. If applicable, were the input values used in the investment analysis valid and applicable at the time of the investment decision with sufficient evidence?	<i>Description:</i> No spread sheet is submitted for Approach II additionality justification. The DOE is not able to check the applicability of input values used in the investment decision. <i>Justifications of evidence:</i>	/PDDs/	CAR PoA-E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
(EB 55 Annex 1, §111; EB 51 Annex 58) <i>In case the basis for input values is a Feasibility Study Report (FSR) describe how it shall be ensured that the period in time between the finalization of the FSR and the investment decision is sufficiently short so that it is unlikely that input values would have materially changed.</i> <i>Please fill out Annex 3 of this report for detailed assessment.</i>	<i>Conclusion:</i> CAR PoA-E4 is raised.			
E.5.1.7. If applicable, does the period chosen for the investment analysis, reflect the technical lifetime of the proposed CPA or in case a shorter period is chosen, is the fair value of the project activity's assets at the end of the investment analysis period (as a cash inflow) included? (EB 55 Annex 1, §111; EB 51 Annex 58) <i>Describe how the technical lifetime / period chosen for calculating financial parameter(s) is reviewed and which documents shall be utilised in the course of review. Describe furthermore the approach used to check the inclusion of a potential fair value.</i>	<i>Description:</i> No spread sheet is submitted for Approach II additionality justification. The DOE is not able to check the period chosen for the investment analysis and fair value calculation. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA-E4	OK
E.5.1.8. If applicable, has the fair value calculation included book value and expected potential profit or loss, and in accordance with local accounting regulations (where available) or international best practice?	<i>Description:</i> No spread sheet is submitted for Approach II additionality justification. The DOE is not able to check the period chosen for the investment analysis and fair value calculation. <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	CAR PoA-E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
(EB 55 Annex 1, §111; EB 51 Annex 58) <i>State the accounting regulations applied for calculating the fair value and describe why these are applicable under the project specific circumstances. Describe potential mismatches between regulations and the approach applied for calculating the fair value.</i>	CAR PoA-E4 is raised.			
E.5.1.9. If applicable, is the book value as well as the expectation of the potential profit or loss included in the fair value calculation? (EB 55 Annex 1, §111; EB 51 Annex 58))	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.10. If applicable, are depreciation and other non-cash related items added back to net profits for the purpose to calculate the financial indicator? (EB 55 Annex 1, §111; EB 51 Annex 58)	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.11. If applicable, is taxation excluded in the investment analysis or is the benchmark intended for post tax comparisons? (EB 55 Annex 1, §111; EB 51 Annex 58)	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.12. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i>	/PDDs/	CAR PoA- E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
project IRR? (EB 55 Annex 1, §111; EB 51 Annex 58)	<i>Conclusion:</i> CAR PoA-E4 is raised.			
E.5.1.13. In case of equity IRR: Is the part of the investment costs, which is financed by equity considered as net cash outflow and is the part financed by debt excluded in net cash outflow? (EB 55 Annex 1, §111; EB 51 Annex 58)	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.14. If applicable, is the type of benchmark chosen appropriate for the type of IRR calculated (e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)? (EB 55 Annex 1, §111; EB 51 Annex 58) <i>In case risk premiums are applied describe its suitability to reflect the risks associated with the project activity.</i>	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.15. If applicable, is the benchmark value suitable for the project activity, e.g., it has been consistently used in the past for similar projects with similar risks, and is it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark? (EB 55 Annex 1, §111-112; EB 51 Annex 58) <i>Describe</i>	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<i>whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.</i>				
E.5.1.16. If applicable, is it ensured that the project cannot be developed by other developers than the PP? (EB 55 Annex 1, §111; EB 51 Annex 58)	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA-E4	OK
E.5.1.17. In case of financial additionality justification; has a sensitivity analysis been considered and does the same contain variation of parameters that constitute more than 20% of either total project costs or total project revenues and may vary throughout the project lifetime? (EB 55 Annex 1, §§110, 111 (e); EB 51 Annex 58) <i>Describe relevance of parameters used in the sensitivity analysis as well as their likeliness to vary during the project's lifetime. Parameters which are fixed on the basis of contracts, PPAs etc. may not be subject to variation and not adequate.</i>	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA-E4	OK
E.5.1.18. If applicable, have sensitivity analysis considered parameters constituting less than 20% of total project costs or revenues, which may have potential material impact on the financial parameter?	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA-E4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
(EB 55 Annex 1, §110; EB 51 Annex 58) <i>Describe whether those parameters are considered in the sensitivity analysis?</i>				
E.5.1.19. If applicable, is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector? (EB 55 Annex 1, §110; EB 51 Annex 58) <i>Describe whether the range of variation is appropriate with focus on historic developments, e.g. price of oil / labour etc., energy potential in the region in question.</i>	<i>Description:</i> No IRR spread sheet was submitted to the DOE. <i>Justifications of evidence:</i> <i>Conclusion:</i> CAR PoA-E4 is raised.	/PDDs/	CAR PoA- E4	OK
E.5.1.20. If applicable, are there any barriers given which have a clear and direct impact on the financial returns of the project? (EB 55 Annex 1, §§ 115, 137) <i>In case of LSC projects those issues cannot be considered as barriers and shall be assessed in the investment analysis. In case of SSC projects the same fundamentals as for LSC projects shall apply, i.e. the assessment of the investment barrier according to EB 41, Annex 45.</i> <i>Please fill out Annex 4 of this report for detailed assessment.</i>	<i>Description:</i> Not applicable <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	NA	OK
E.5.1.21. If applicable, are the barriers described risk related (e.g technology failure, other performance related risks) or has the	<i>Description:</i> Not applicable <i>Justifications of evidence:</i>	/PDDs/	NA	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<p>availability of sources of finance for the project been described and adequately substantiated?</p> <p>(EB 55 Annex 1, §§ 115, 137)</p> <p><i>Identified barriers shall be in accordance with the attachment A to appendix B (4/CMP.1, Annex II, paragraph 28) and Guidelines for objective demonstration and assessment of barriers (EB50 Annex 13)</i></p>	<p><i>Conclusion:</i></p>			
<p>E.5.1.22. If applicable, has it been justified that one or a set of real barriers prevent(s) the implementation of the project activity and do not prevent the implementation of at least one of the alternatives?</p> <p>(EB 55 Annex 1, § 117 (b))</p>	<p><i>Description:</i> Not applicable</p> <p><i>Justifications of evidence:</i></p> <p><i>Conclusion:</i></p>	/PDDs/	NA	OK
<p>E.5.1.23. If applicable, have the established criteria justified and evidenced that the barriers given in the PoA-DD are real and appropriate?</p> <p>(EB 55 Annex 1, § 117 (a))</p>	<p><i>Description:</i> Not applicable</p> <p><i>Justifications of evidence:</i></p> <p><i>Conclusion:</i></p>	/PDDs/	NA	OK
<p>E.5.1.24. Is the defined region for the common practice analysis appropriate for the technology/industry type?</p> <p>(EB 55 Annex 1, § 120)</p> <p><i>Describe the why the project activity is not common practice in a</i></p>	<p><i>Description:</i> Not applicable</p> <p><i>Justifications of evidence:</i></p> <p><i>Conclusion:</i></p>	/PDDs/	NA	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<i>transparent and unambiguous manner.</i>				
E.5.2. Key criteria for assessment and demonstration of CPA additionality	<i>The key criteria for CPA additionality assessment shall be checked</i>			
E.5.2.1. Does the PoA-DD provide unambiguous criteria to assess the decision taken to proceed with the CPA? <i>Describe the steps taken to validate the assessment of the decision making.</i>	<i>Description:</i> Not applicable <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	N/A	OK
E.5.2.2. Does the PoA-DD provide unambiguous criteria to assess that the project would not be the most economically or financially attractive alternative without the revenues from the sale of CERs? (EB 55 Annex 1, §108) <i>Discuss the appropriateness of the criteria established. Pl. consider also the eligibility criteria as discussed above. Assess whether the PP has demonstrated how these criteria would be applied to assess the additionality of a typical CPA at the time of CPA inclusion.</i>	<i>Description:</i> Not applicable as per VVM. <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	N/A	OK
E.5.2.3. Does the PoA-DD provide unambiguous criteria to assess the barriers identified in section E.5.1 of the PoA-DD which will prevent the CPAs occur without the CDM incentives?	<i>Description:</i> Not applicable <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	N/A	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
E.5.2.4. In case similar projects will be identified, are there any unambiguous criteria to assess the key differences between the proposed project and existing or ongoing projects and what kind of difference has been observed? (EB 55 Annex 1, § 120)	<i>Description:</i> Not applicable <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	N/A	OK
E.5.2.5. Are there any other key criteria and data for assessing additionality of a CPA which is necessary besides the ones mentioned above not included in the PoA-DD? <i>Please fill out Annex 6 of this report for detailed assessment of all key criteria.</i>	<i>Description:</i> Not applicable <i>Justifications of evidence:</i> <i>Conclusion:</i>	/PDDs/	N/A	OK
E.6. Estimation of Emission Reductions of a CPA				
E.6.1. Explanation of methodological choices for CPA Emission	<i>In case the applied methodology provides choices the selection of options shall be assessed</i>			
E.6.1.1. In case the methodology allows for different methodological choices, are the equations applied properly justified and have they been used reflecting the other methodological choices (i.e. baseline	<i>Description:</i> The applied methodology AMS-I.J does not allow for different methodological choices. The baseline equation explanations are provided under par 9, 10 and 11. <i>Justifications of evidence:</i>	/PDDs/ /AMS-I.J/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>identification)?</p> <p>(EB 55 Annex 1 §§ 90, 91)</p> <p><i>Assess the correct selection and application of methodological choices. Describe whether proper justification has been provided (based on the choice of the baseline scenario, context of a typical CPA and other evidence provided) and whether the correct equations have been used reflecting the relevant methodological choices.</i></p>	<p>The PoA-DD was checked as well as the applied methodology</p> <p><i>Conclusion:</i></p> <p>The equations are well applied as per methodology recommendation.</p>			
<p>E.6.1.2. In case the implementation of the project activity lead to GHG emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology, has this parameter been included in the calculation of the emission reductions?</p> <p>(EB 55 Annex 1, §77)</p> <p><i>Please describe the extra parameters defined and calculated.</i></p>	<p><i>Description:</i></p> <p><input checked="" type="checkbox"/> The implementation of the project activity does not lead to GHG emissions within the project boundary that will contribute more than 1% of the overall expected average annual emission reductions that are not addressed by the applied methodology. Thus no extra parameter is necessary.</p> <p><input type="checkbox"/> The following GHG emissions caused by implementation of the project within the project boundary, have been identified as will contribute more than 1% of the overall expected average annual emission reductions, that are not addressed by the applied methodology:</p> <p><i>Justifications of evidence:</i></p> <p>PoA-DD</p> <p><i>Conclusion:</i></p> <p>Only Project emissions that are expected are from the usage of pumps for forced draft system. Thus it concluded that the methodology address all emissions within the project boundary.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E5</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
	However CAR PoA-E5 is raised..			
E.6.2. Equations, including fixed parametric values used for ER calculation				
<p>E.6.2.1. Are the equations applied correctly according to the applied approved methodology?</p> <p>(EB 55 Annex 1 §§67 (c), 89, 90, 91)</p> <p><i>Describe clearly the steps taken to assess whether the methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. Further take into consideration that all estimates of the baseline emissions can be replicated using the data and parameter values provided in the PoA-DD.</i></p>	<p><i>Description:</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The equations applied for calculation are correctly applied according to the approved methodology. <input checked="" type="checkbox"/> The following mistakes have been identified in this context: <ul style="list-style-type: none"> 1. Emission reduction spread sheet is not submitted. <p><i>Justifications of evidence:</i></p> <p>The PoA-DD and the CPA-DD have been checked, against the applied methodology</p> <p><i>Conclusion:</i></p> <p>The equations are correctly applied for baseline emissions but the emission reduction calculation spreadsheet and project emissions have not been provided.</p> <p>CAR PoA-E5 was raised</p>	/PDDs/ /AMS-I.J/	CAR PoA- E5	OK
<p>E.6.2.2. Have parameters with fixed values for the whole PoA been listed in section E.6.2 of the PoA-DD?</p> <p><i>Only those parameters which can be determined at the stage of PoA validation and will be applied consistently for each CPA shall be included in section E.6.2 of the PoA-DD. Ex-ante estimation of monitoring parameters or parameters</i></p>	<p><i>Description:</i></p> <p>All fixed values for baseline emissions and emission reduction calculations are recommended by the applied and approved methodology and listed in section E.6.2 of the PoA-DD. However the latest data applicable from the CEA data base is not referred to calculate the values for Emission factor for electric system.</p> <p><i>Justifications of evidence:</i></p>	/PDDs/ /AMS-I.J/	CAR PoA- E5	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<i>to be reported only at CPA inclusion stage shall not be included.</i>	<p>The PoA-DD and the CDM CPA-DD have been checked and equations and parameters compared with the applied methodology</p> <p><i>Conclusion:</i></p> <p>All fixed values at PoA level have been included in section E.6.2.</p> <p>CAR PoA-E5 is raised.</p>			
<p>E.6.2.3. Have conservative assumptions been used when calculating the baseline emissions, project emissions and leakage?</p> <p>(EB 55 Annex 1 §§ 90, 91)</p> <p><i>Describe clearly the steps taken to assess whether all the assumptions and data used by the PP are listed in the PDD including references and sources and are conservatively interpreted in the PoA-DD.</i></p>	<p><i>Description:</i></p> <p>The calculation of baseline emissions is based on two types of methods i) Stipulated energy savings method and ii) System metering which is explained in section E.6.1. However, neither calculations nor interpretations have been carried out on the PoA-DD to the satisfaction of the Validator, and no spreadsheets have been submitted. No information on project emission and equations are included in the PoA-DD.</p> <p><i>Justifications of evidence:</i></p> <p>By checking the PoA-DD, the applied methodology.</p> <p><i>Conclusion:</i></p> <p>The DOE does not have sufficient information to unambiguously declare that conservative assumptions have been made.</p> <p>Hence, CAR PoA-E5 is raised.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E5</p>	OK
E.6.3. Data and parameters have to be reported in the CPA-DD form				
E.6.3.1. Have all data and parameters which	<p><i>Description:</i></p>	/PDDs/	CAR	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p>remain fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions?</p> <p><i>Describe clearly the steps taken to assess whether the values used for the fixed parameters are considered reasonable, correct and applicable in the context of the project activity.</i></p>	<p><input type="checkbox"/> All "Values of data to be applied for the purpose of calculating expected emissions reductions" are considered to be reasonable, applicable and conservative.</p> <p><input checked="" type="checkbox"/> The following mistakes have been identified in this context:</p> <p>Emission factor referred in the CPA-DD is not the latest information available at the time of DD preparation.</p> <p><i>Justifications of evidence:</i></p> <p>By checking the PoA-DD and the applied methodology</p> <p><i>Conclusion:</i></p> <p>CAR PoA-E5 is raised</p>	/AMS-I.J/	PoA-E5	
E.7. Application of the monitoring methodology and description of the monitoring plan				
E.7.1. Data and parameters to be monitored by each CPA				
<p>E.7.1.1. Are the means of monitoring of all parameters contained in the monitoring plan feasible and in accordance with the requirements of the applied methodology?</p> <p>(EB 55 Annex 1, § 123 (a), 123 (b), 124)</p> <p><i>Assess whether the provided information for all parameters</i></p>	<p><i>Description:</i> The following Monitoring Parameters are given in the PoA-DD</p> <ol style="list-style-type: none"> 1. Total Collector area in operation under a CPA 2. Number of People in each residential unit 3. Fraction of the year 4. Acceptance Test 	<p>/PDDs/ /AMS-I.J/</p>	CAR PoA-E6	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<p><i>w.r.t.</i></p> <ul style="list-style-type: none"> a) <i>label (name of the data / parameter)</i> b) <i>data unit</i> c) <i>description</i> d) <i>source of data</i> e) <i>value applied for ex-ante ER calculation</i> f) <i>measurement equipment / method / procedure</i> g) <i>QA/QC procedures</i> h) <i>Any comment if necessary</i> <p><i>are appropriately described and in compliance with the requirements of the methodology.</i></p>	<ul style="list-style-type: none"> 5. Inspection 6. Volume of hot water consumed/utilized 7. Temperature of hot water 8. Temperature of cold water 9. ECPE <p><i>Justifications of evidence:</i> By checking the PoA-DD and the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E6 was raised as the description is not clear in the PoA-DD.</p>			
<p>E.7.1.2. Are all monitoring parameters as required by the applied methodology contained in the monitoring plan?</p> <p>(EB 51 Annex 1, §§ 67 (e), 122, 123 (a) , 124)</p> <p><i>Assess whether all applicable parameters listed in the methodology are included in the monitoring plan.</i></p> <p><i>Pl. check further whether the selection of parameters not to be monitored is appropriate and in line with the applied methodology.</i></p> <p><i>In case of different approaches can be chosen acc. to the methodology assess whether the selection of parameters is</i></p>	<p>Description: Not all the parameters as required by the applied methodology are given in the monitoring plan.</p> <p><i>Justifications of evidence:</i> By checking the PoA-DD and the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E6 was raised as the monitoring plan is not in line with methodology.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E6</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
<i>justified and correct.</i>				
<p>E.7.1.3. Does the PoA-DD mention reasonable values for all ex-ante calculation / monitoring parameters?</p> <p><i>Describe clearly the steps taken to assess whether the values used for the monitoring parameters are considered reasonable, applicable and conservative in the context of the project activity</i></p>	<p><i>Description:</i> The PoA-DD does not contain all monitoring parameters as per the requirements of AMS-I.J. version 01</p> <p>The emission reduction calculation sheets are also not submitted.</p> <p><i>Justifications of evidence:</i> The POA-DD has been checked against the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E5 and CAR PoA- E6 are raised.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E5 CAR PoA- E6</p>	OK
E.7.2. Description of the monitoring plan for a SSC-CPA				
<p>E.7.2.1. Has a monitoring plan for a CPA been developed in accordance with the approved monitoring methodology, and identified the monitoring provisions and data parameters a CPA has to apply/monitor?</p> <p>(EB 55 Annex 38, §6(j))</p>	<p><i>Description:</i> The PoA-DD does not elaborate the monitoring plan as required by the methodology AMS-I.J. version 01</p> <p>The emission reduction calculation sheets are also not submitted.</p> <p><i>Justifications of evidence:</i> The PoA-DD has been checked against the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E6 and CAR PoA- An1 are raised.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E6 CAR PoA- An1</p>	OK
<p>E.7.2.2. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified?</p> <p>(EB 55 Annex 1 124 (b))</p> <p><i>Please consider the description given in section B.7.2. Describe which QA/QC provisions are considered. Address</i></p>	<p><i>Description:</i> The QA/QC procedures identified are not in line.</p> <p><i>Justifications of evidence:</i> The POA-DD has been checked against the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E5 and CAR PoA- E6 are raised.</p>	<p>/PDDs/ /AMS-I.J/</p>	<p>CAR PoA- E5 CAR PoA- E6</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<i>Quality Management System provisions, calibration and maintenance of equipment. Address further any review procedures.</i>				
<p>E.7.2.3. Have all means of implementing the monitoring plan, e.g. procedures for data management, emergency preparedness, been described clearly and in line with the methodology?</p> <p>(EB 55 Annex 1 123 (b), 124)</p> <p><i>Check whether all necessary equations have been provided in the PoA-DD. Pl. consider that ex-post and ex-ante calculations might be different.</i></p> <p><i>Please consider that additional equations might be necessary to calculate auxiliary parameters.</i></p> <p><i>Assess whether the described monitoring arrangements are sufficient and realistic to enable a thorough monitoring. Pl. consider also special monitoring conditions, e.g. downtimes of monitoring equipment etc</i></p>	<p><i>Description:</i> The data management system and Emergency preparedness are not clearly given in the monitoring plan.</p> <p><i>Justifications of evidence:</i> The POA-DD has been checked against the applied methodology.</p> <p><i>Conclusion:</i> CAR PoA-E5 and CAR PoA- E6 are raised.</p>	/PDDs/ /AMS-I.J/	CAR PoA-E5 CAR PoA-E6	OK
E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/ entity(ies)				
E.8.1. Have the dates of the completion of the application of the baseline study and monitoring	<p><i>Description:</i></p> <p>Section E.8 of the PoA-DD contains the dates of completion of the</p>	/PDDs/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclu sion	Final Concl usion
methodology and the name of the responsible person(s)/ entity (ies) appropriately mentioned?	<p>application of the baseline study and monitoring methodology and the name of the responsible entity appropriately mentioned</p> <p><i>Justifications of evidence:</i></p> <p>The PoA-DD section E.8 was checked</p> <p><i>Conclusion:</i></p> <p>The entity is appropriately mentioned.</p>			
Annexes				
<p>An.1. Has contact information on CME and Participants in the PoA been sufficiently and appropriately included in Annex 1 of the PoA-DD and consistent with section A.3?</p> <p>(EB 55 Annex 1, § 52)</p> <p><i>Each organization listed in section A.3 shall include the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail.</i></p>	<p><i>Description:</i></p> <p>The CME is M/s G K Energy Marketers Pvt. Ltd Contact information has been sufficiently and appropriately included in Annex 1 of the PoA-DD and consistent with section A.3</p> <p><i>Justifications of evidence:</i></p> <p>By comparing section A.3 and Annex 1 of the PoA-DD</p> <p><i>Conclusion:</i></p> <p>Contact information containing mandatory fields such as Organization, P.O BOX City, Country, Telephone and email address and name of contact person have been provided.</p>	/PDDs/	OK	OK
<p>An.2. Has any important Public Funding information been included in Annex 2 of the PoA-DD and consistent with section A.4.5?</p> <p>(EB 55 Annex 38, §6(n))</p> <p><i>Assess information from Parties included in Annex 1 on</i></p>	<p><i>Description:</i></p> <p>No public funding information has been included in Annex 2 or section A.4.5 of the PoA-DD. The CME confirms that no public funding is involved but has not furnished the DOE with proof of the same.</p> <p><i>Justifications of evidence:</i></p>	<p>/PDDs/</p> <p>/ODA/</p>	CAR PoA- A9	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidence)	Ref.	Draft Conclusion	Final Conclusion
<i>sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties.</i>	Annex 2 was checked as well as section A.4.5 of the POA-DD. <i>Conclusion:</i> CAR PoA-A9 is raised.			
An.3. Has any important Baseline information necessary to be included in Annex 3 of the PoA-DD and consistent with section E.4? (EB 55 Annex 1, §§ 67 (b), 82, §§ 104 – 106) <i>Assess any further background information used in the application of the baseline methodology. This may include tables with time series data, documentation of measurement results and data sources, etc.</i>	<i>Description:</i> Not required No separate data is provided in Annex 3 of the PoA-DD to substantiate baseline development.	/PDDs/	OK	OK
An.4. Has any important Monitoring information necessary to be included in Annex 4 of the PoA-DD and consistent with section A.4.4 and E.7? (EB 55 Annex 38, §6(j); EB 55 Annex 1 123 (b), 124) <i>Assess any further background information used in the application of the monitoring methodology. This may include tables with time series data, additional documentation of measurement equipment, procedures, etc.</i>	<i>Description:</i> No information is provided in Annex 4 of the PoA-DD other than what is included in section E.7. <i>Justifications of evidence:</i> Annex 4 of the PoA-DD version was checked. <i>Conclusion:</i> Information on detailed sampling and survey is no where traceable in the PoA-DD and real case CPA-DD. CAR PoA-An1 is raised	/PDDs/	CAR PoA-An1	OK

ANNEX 2: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-2: Assessment of Baseline Identification (EB 55 Annex 1 §§83 – 86)

<input type="checkbox"/>	Baseline is not identified
<input checked="" type="checkbox"/>	Assessment of baseline see below

Baseline Alternatives identified	In line with the Methodology?	Eliminated	Reasons for elimination / non-elimination from list of alternatives	Evidence used	DOE Assessment	
					Appropriateness of elimination	Assessment of validation team (results and means of assessment)
Continuation of use/ installing new Electric Geysers/heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The convenient installations and ease of operation as well as availability of electric supply.	http://www.aeinetwork.org/reep/doc/DI_REC_Background.pdf	<input type="checkbox"/>	Not eliminated.
Continuation of use/proposed use of immersion rod type electric heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The low cost and ease operation as well as availability of electric supply.		<input type="checkbox"/>	Not eliminated.

Fuel oil based Hot water generation option and Gas(LPG) based hot water generation option	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The rising cost of fuel oil and LPG because of the revoking of subsidy by the government is a major hurdle in use of same as medium for water heating	http://mospi.nic.in/mospi_new/upload/Energy_Statistics_2012_28mar.pdf	<input checked="" type="checkbox"/>	Due to the ever rising cost of fuel oil system and the logistics associated with it will restrict the use for fuel oil for low temperature and low pressure heating systems. Cost of LPG and the cap imposed by the government for subsidized LPG will restrict the usage of LPG in residential applications also the volume of the water to be heated is not feasible in LPG stoves in the domestic sector. But for commercial applications the LPG cost will be very high.
Project Activity without CDM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The project under SWH comes under positive list of projects	EB 68 Annex 27	<input checked="" type="checkbox"/>	EB Guidelines states that the project comes under positive list. Hence it requires CDM and eliminated.

ANNEX 3: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-3: Assessment of Financial parameters

<input checked="" type="checkbox"/>	No financial parameters are used for additionality justification
<input type="checkbox"/>	Assessment of all financial parameters see below

PP Demonstration					DOE Assessment		
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	values applied are correct	Evidence used are appropriate	Comment
					<input type="checkbox"/>	<input type="checkbox"/>	

ANNEX 4: ASSESSMENT OF BARRIER ANALYSIS

Table A-4: Assessment of Barrier Analysis

<input checked="" type="checkbox"/>	No barrier parameters are used for additionality justification
<input type="checkbox"/>	Assessment of barriers see below

PP Demonstration			DOE Assessment	
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Appropriate	Explanation of final result
			<input type="checkbox"/>	

ANNEX 5: OUTCOME OF THE GSCP

Table A-5: Outcome of the Global Stakeholder Consultation Process

(§§ 41, 42 VVM Version 1.2)

<input type="checkbox"/>	No comments were received during the global stakeholder consultation period
<input checked="" type="checkbox"/>	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:

Comment No.:	Comment by:	Inserted on:	Subject	Comment ^{*)}	Action taken by the validation team to take due account on the comment ^{*)}	Conclusion (incl. CARs CLs or FARs)
1	aditya84_88@hotmail.com	2012-03-24	Development of Programmatic CDM Project for SWH installation under MNRE, UNDP/GEF Global Solar Water Heating Market Transformation and Strengthening Initiatives: India Country Programme	<p>1. What are the safe guards for a end user of solar water heater in terms of money received by the project proponent. (As per the calculations the project proponent would receive INR 800,000 every year. what is the surety that the end user would be paid & how would the end user will be paid (cash in hand or a bank transfer)</p> <p>2. Are the end user's aware about such a programme being initiated. Are there any consent form's available with the party to prove</p>	<p>1. After the end user agreement is signed by the beneficiaries and then only CME will add the system in a CPA. So, from the copy of the end user agreement it is known that the beneficiaries are aware of the carbon revenues. Hence the comment is closed.</p> <p>2. As above. Hence the second comment also closed.</p>	PoA- CL D2 is raised and closed.

Comment No.:	Comment by:	Inserted on:	Subject	Comment ^{*)}	Action taken by the validation team to take due account on the comment ^{*)}	Conclusion (incl. CARs CLs or FARs)
				<p>that end user is willing to share the information at a international level.</p> <p>3. What if a Solar Water Heater is not in use or decommissioned by end user would he still get the benefits as validating each system is a time consuming activity.</p>	<p>3. The monitoring plan clearly gives that only the proportion of the systems which are in operation are considered for emission reductions and a third party survey will be carried out for the same. Hence the decommissioned system cannot claim the credits. Also scheduled maintenance logs maintained by the suppliers will be cross checked. Hence the issue is closed</p>	

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 6: ELIGIBILITY CRITERIA ASSESSMENT

Table A-6: Assessment on Eligibility Criteria for inclusion of CPAs under this PoA

A full list shall be included in section A.4.2.2 of the PoA-DD and B.2 of the generic CPA-DD. (EB 55 Annex 38 §12(b))

<input type="checkbox"/>	Eligibility Criteria for inclusions of CPAs under this PoA has not been sufficiently described
<input checked="" type="checkbox"/>	Eligibility Criteria for inclusions of CPAs under this PoA has been sufficiently described as follows

PP Demonstration			DOE Assessment	
Eligibility Criteria	Further Elaboration	Minimum Expected Evidence to be provided during CPA inclusion	Appropriate and sufficient	Explanation of final result
1. Location – Address where the SWH is installed and located within India.	Project Boundary	Boundary within India, End user agreements (which gives the location details and purchase dates along with Purchase orders.	<input checked="" type="checkbox"/>	If the CPA includes any installations of Solar water heating systems (flat plate and ETC) after 16-04-2012 within the geographic boundary of India it can be included in the PoA.
2. UID, End user agreement , CPA level confirmation, user level confirmation , data base assessment and verification by nodal agency.	Double Counting	End user Agreements with unique identification details. A confirmation from the CPA implementer that the proposed CPA is neither registered as an individual CDM project activity nor included in another PoA and that no CERs will be claimed for the solar	<input checked="" type="checkbox"/>	The end user agreement between the CME and end/user beneficiaries is checked. Apart from that after the installations a third party acceptance test will be conducted for successful commissioning. By cross verifying with the data base double counting can be avoided. A confirmation letter will be drawn up to exclude CERs will be claimed beside for the PoA. The expected evidence at CPA inclusion stage identified

PP Demonstration			DOE Assessment	
Eligibility Criteria	Further Elaboration	Minimum Expected Evidence to be provided during CPA inclusion	Appropriate and sufficient	Explanation of final result
		water heating units other than those claimed by this PoA's CME		is deemed appropriate.
3. Residential and commercial solar water heating systems for Hot water production. Natural draft and or forced draft FPC and ETC collectores.	Technology	MNRE/ BIS or similar approved collectors	<input checked="" type="checkbox"/>	SWH system to be considered is either a flat plate collector (FPC) or evacuated tube collector (ETC) based technology approved by BIS or MNRE. The commercial systems and large residential systems of more than 100 m ² collector area should have flow and temperature sensors. This is in line with the host country requirements. Hence this is appropriate.
4. Earliest date of Purchase order for the syatem under CPA.	Start date	Purchase/ sales Invoice and signing of End user Agreement	<input checked="" type="checkbox"/>	The sales invoice and End user agreement are checked to see that the start date is the date after which the PoA is hosted in UNFCCC for global commenting 17-03-2012.
5. The SWH systems displace electricity or fossil fuel that would otherwise have been used to produce hot water.	Methodology applicability	Applicability conditions of AMS-I.J version 01.	<input checked="" type="checkbox"/>	The installations are residential solar water heating (SWH) systems and commercial SWH systems for hot water production. The SWH systems displace electricity or fossil fuel which may be in retrofits and in new construction. The SWH satisfying the above conditions can be included in the CPA and so the methodology is only applicable if the above criterion is fulfilled.

PP Demonstration			DOE Assessment	
Eligibility Criteria	Further Elaboration	Minimum Expected Evidence to be provided during CPA inclusion	Appropriate and sufficient	Explanation of final result
				Thus, the expected evidence required for methodology applicability at CPA inclusion stage is deemed appropriate.
6. Micro Scale Projects and Small scale projects.	Additionality	Cumulative collector area less than 64000 m ² for small scale projects and less than 21428 m ² for micro scale projects. Based on the Purchase orders and End User agreements.	<input checked="" type="checkbox"/>	<p>Small Scale: The CPAs are automatically additional if the total collector area is less than 64,000 m² as per EB 68 Annex 27 in conjunction with EB61 annex 21. Also the individual users are households and SMEs and each of the independent system is less than 3200 m².</p> <p>Micro Scale: The CPAs are automatically additional if the total collector area is less than 21,428 m² as per EB 68 Annex 26 in conjunction with EB61 annex 21. Also the individual users are households and SMEs and each of the independent system is less than 6428 m².</p> <p>The expected evidence at CPA inclusion stage is deemed appropriate.</p>
7. Stake holder Consultations at CPA stage and EIA is not required.	Stakeholder	Local Stake holder Consultation evidences	<input checked="" type="checkbox"/>	<p>The stakeholder consultations are conducted at CPA level. So it is mandatory to address local stakeholder consultations before the inclusion of the CPA in the PoA.</p> <p>The expected evidence such as Local stakeholder invitation meeting notice, minutes of the meetings and participants list at CPA inclusion stage is deemed appropriate.</p>
8. Self-declaration by the CME is provided to ascertain that there is no or	ODA	Self Declaration by CME and document for	<input checked="" type="checkbox"/>	The self Declaration by the CME that no public funding and ODA is available for this project activity.

PP Demonstration			DOE Assessment	
Eligibility Criteria	Further Elaboration	Minimum Expected Evidence to be provided during CPA inclusion	Appropriate and sufficient	Explanation of final result
won't be any diversion of the official development assistance for the purpose of the CDM program of activity.		verification by nodal agency		The expected evidence at CPA inclusion stage is deemed appropriate.
9. The CPA will cover installation of residential and/or commercial SWH system	Target Group	Tripartite Agreements and purchase orders.	<input checked="" type="checkbox"/>	<p>The CPA will cover installation of residential and/or commercial SWH system. The residential system will have stand alone capacity of 100m². More than that it is defined as commercial.</p> <p>The expected evidence at CPA inclusion stage is deemed appropriate.</p>
10. Sample estimation for CPAs with ≤ 8 m ² collector system for survey to find out the collector still working as per manufacture specifications and no for sample required for a CPAs with 8m ² to 100m ² collector system to provide system monitoring.	Sampling	Sampling size estimated.	<input checked="" type="checkbox"/>	<p>If the CPA uses very small systems ≤ 8 m² collector area and goes for stipulated energy saving method, it is required to find the proportion collector operating under manufacture specification. For that 100 systems need to be sample surveyed to estimate the proportion of collectors still functioning.</p> <p>If the CPA uses small systems between 8 m² and 100 m² and goes for system metering method, it is required meter 35 systems to estimate the average heat gain per m² area of the collector.</p> <p>The expected evidence at CPA inclusion stage is deemed appropriate.</p>
11. Micro scale and small scale thresholds	Capacity	Tripartite Agreements	<input checked="" type="checkbox"/>	For CPA with aggregated installation of less than 21428 m ² and covering installation at residential, community and SME, the project will be conceptualised under Micro scale CDM programme activity.

PP Demonstration			DOE Assessment	
Eligibility Criteria	Further Elaboration	Minimum Expected Evidence to be provided during CPA inclusion	Appropriate and sufficient	Explanation of final result
				For CPA with cumulative installation of less than 64000m ² and covering both residential and commercial SWH system will be conceived under small scale category. The expected evidence at CPA inclusion stage is deemed appropriate.
12. Debundling check.	Debundling	Tripartite Agreements	<input checked="" type="checkbox"/>	If the subsystem included in the CPA is more than 640 m ² under Small Scale or more than 214 m ² under micro scale then debundling check will be carried out at the CPA level. The expected evidence at CPA inclusion stage is deemed appropriate.

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 7: APPOINTMENT CERTIFICATES OF TEAM MEMBERS



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Prabhat Kumar

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification)	2015-01-17
VCS	Lead Assessor	2015-01-17

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
7.1	Transport
13.1	Waste Handling and Disposal

284 – Rev. 3, Date: 2012-02-08

284_S01-F003_2012-02-08_rev3.doc

S01-F003 rev1 / 2011-08-02



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Ezhilarasu G.

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification)	2015-11-18
VCS / ISO 14064-2	Lead Assessor	2015-11-18

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
13.1	Waste Handling and Disposal

130 – Rev. 2, Date: 2012-11-19

130_S01-VA060-F20_2012-11-19_rev2.doc

S01-VA060-F20 rev3 / 2012-10-25



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Nikesh Ravandur Satish

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2013-10-18
VCS	Lead Assessor	2013-10-18

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
13.1	Waste Handling and Disposal

236 – Rev. 2, Date: 2012-02-22

236_S01-F003_2012-02-22_rev2.doc

S01-F003 rev0 / 2010-04-19



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Vijay Kumar Machcha

SCHEME	STATUS	VALID UNTIL
CDM	Assessor (Validation, Verification)	2015-11-12
VCS / ISO 14064-2	Assessor	2015-11-12

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
13.1	Waste Handling and Disposal

289 – Rev. 2, Date: 2012-11-13

296_S01-VA060-F20_2012-11-13_rev2.doc

S01-VA060-F20 rev3 / 2012-10-25



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Ms. Susanne Pasch

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification) Technical Reviewer	2015-09-20
JI	Lead Assessor Technical Reviewer	2015-09-20
VCS / ISO 14064-2	Lead Assessor Technical Reviewer	2015-09-20

174 – Rev. 2, Date: 2012-09-21

174_S01-F003_2012-09-21_rev2.doc

S01-F003 rev2 / 2012-04-05



Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Rainer Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2013-07-03
JI	Senior Assessor Technical Reviewer	2013-07-03
VCS	Senior Assessor Technical Reviewer	2013-07-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal Energy Generation	
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal
4.1	Cement Sector	
4.3	Iron and Steel	
4.5	Waste Heat Recovery	
5.1	Chemical Process Industries	
9.1	Metal Production	
11.1	Chemical Process Industries	
11.2	GHG Capture and Destruction	
12.1	Chemical Process Industries	
13.1	Waste Handling and Disposal	13.1.1 Waste Management

003 – Rev. 5, Date: 2011-08-01

003_S01-F003_2011-08-01_rev5

S01-F003 rev6 / 2010-04-19