

VALIDATION REPORT

for the CDM Programme of Activity

Welspun Renewable Energy Program

In
India

Report No. 01 997 9105069997
Version No. 01, 2012-10-30

Designated Operational Entity (DOE)

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I. Programme of Activities (PoA) Description:

| | | | |
|---|---|--|--------------------------------------|
| PoA title: | Welspun Renewable Energy Program | | Report No.: 01 997 9105069997 |
| Host Country: | India | | Current revision No.: 01 |
| Methodology ¹ : | 1. ACM0002 Version 12.3.0, Request for registration can be submitted until 2013-01-11, 23:59:59 GMT 2. AMS-I.D, version 17, Valid from 2011-06-17 | <input checked="" type="checkbox"/> Large Scale <input checked="" type="checkbox"/> Small Scale | Date of current revision: 2012-10-30 |
| | | | Date of first issue: 2012-07-10 |
| Geographical Coordinated of the PoA | | Entire geographical region of India | |
| Expected Starting date of PoA | | 2012-05-12 | PoA Duration 28 years |
| Annual average emission reductions (estimate of 1 st Real case CPA): | | 37,739 tCO _{2e} /yr | |
| GHG reducing measure/technology: | The CPA's of the proposed PoA project activity is the installation of Solar Photovoltaic, Solar Thermal and Wind Energy power plant which produces electricity from the Solar radiation and Wind energy. The generated electricity will supply the power to Regional Grid (NEWNE and Southern) of India. Thus, the technology eliminates use of fossil fuel for generation of electricity, uses solar radiation and wind which helps in avoidance of CO ₂ emissions. | | |

| Party | Project Participants/CME | Party considered a project participant | Contract party |
|----------------------------|-----------------------------------|--|-------------------------------------|
| Government of India (Host) | Welspun Renewables Energy Limited | No | <input checked="" type="checkbox"/> |

II. Validation:**Validation Team:**

| Validation Team | | | Role | | | | | | | |
|-----------------------------|---------------------------|---|-------------|--------------------|--------------|-----------------------|------------------|---------------------|-----------------|--------------------|
| Full name | Affiliation TÜV Rheinland | Appointed for Sectoral Scopes (Technical Areas) | Team leader | Acting Team Leader | Local Expert | Team Member (Auditor) | Technical Expert | Acting Tech. Expert | Trainee Auditor | Technical Reviewer |
| Mr. R. Murali | India | 1.2, 3.1 | X | | X | | X | | | |
| Mr. Ma. Paa. Puratchikkanal | India | 1.2, 3.1, 6.1, 13.1, 13.2, 15.1 | | | X | X | X | | | |
| Ms. Indumathi C | India | 1.2 | | | | | | | | X |

Validation Phases and Validation Status:

- ☒ Desk Review
 ☒ Follow up interviews
 ☒ Resolution of outstanding issues
☐ Corrective Actions / Clarifications Requested
 ☒ Full Approval and Submission for Registration
☐ Rejected

III. Validation Report:

| Final approval | Released | Distribution |
|-------------------------------------|---------------------|--|
| <input checked="" type="checkbox"/> | By: Mr. Praveen Urs | <input type="checkbox"/> No distribution without permission from the Client or responsible organizational unit |
| Date: 2012-11-08 | | <input checked="" type="checkbox"/> Unrestricted distribution |

EXECUTIVE SUMMARY- VALIDATION OPINION

The validation team assigned by the DOE (TÜV Rheinland (China) Ltd.), here after called TRC, is been assigned by “Welspun Renewables Energy Limited “to perform the PoA validation of their project “Welspun Renewable Energy Program“. The scope of the validation is defined as an independent and objective review of the PoA-DD, CPA-DD, project baseline and additionality, eligibility criteria established for CPA inclusion, monitoring plan and other relevant documents. The validation has been performed following the VVS requirements and other requirements as contained in PS and other PoA Specific Standard. The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, site visit, Stakeholder interviews, review of the applicable methodology (ies) and its underlying formulae and calculations

The following CDM requirements have been considered:

- Article 12 of the Kyoto Protocol,
- Modalities and procedures for CDM (Marrakech Accords)
- Subsequent decisions by the COP/MOP and CDM Executive Board
- Host country criteria
- Criteria given to provide for consistent project operations, monitoring and reporting.

The validation was executed in the following steps so far:

- Receipt of PoA-DD and CPA-DD (real case) version 01 for global stakeholder commenting.
- Global stakeholder comment process (2012-05-12 to 2012-06-10)
- On-site visit with stakeholder interviews (2012-06-25)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report and protocol
- Desk review of PoA-DD and CPA-DD
- Review of responses of CARs/CLs
- Issue of the final validation report and protocol

The host part is India fulfill the participation criteria and have approved and authorized the project and the project participant. The DNA of India/P03/ confirms that the project assists in achieving sustainable development.

The project correctly applies the combination of two methodologies. The PoA applies baseline and monitoring methodology of ACM0002 Version 12.3.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” and AMS-Id, version 17, “Grid connected renewable electricity generation” as per the clarification note AM_CLA_0227.

The project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

Standard auditing techniques have been used for the validation of the PoA. An analysis, as provided by the applied methodology, demonstrates that the PoA is not a likely baseline scenario. Emission reductions attributable to the PoA (eligible CPAs of the PoA) are additional to any that would occur in the absence of the proposed eligible CPAs. Given that the PoA is implemented as designed, the CPAs are likely to achieve the emission reductions.

The validation protocol describes a total of 18 findings which include:

9 Corrective Action Requests (CARs);

9 Clarification Requests (CLs);

No Forward Action Requests (FARs); and all findings have been closed satisfactorily.

The single purpose of this report is its use during the registration process as part of the CDM project cycle. In the opinion of TÜV Rheinland, the PoA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV Rheinland thus recommends the PoA to be registered with the UNFCCC.

R. Murali



TÜV Rheinland (India) Pvt Ltd
Bangalore, 2012-10-30

Mr. Praveen Nagaraje Urs (DOE Manager)



TÜV Rheinland (China) Ltd.
Beijing, 2012-11-08

Abbreviations

| | |
|------------------------|--|
| ABT | Availability Based Tariff |
| AMS | Approved Methodology Small scale |
| BAU | Business as usual |
| BE | Baseline Emission |
| BM | Build Margin |
| CAR | Corrective Action Request |
| CDM | Clean Development Mechanism |
| CDM EB | CDM Executive Board |
| CEA | Central Electricity Authority |
| CERC | Central Electricity Regulatory Commission |
| CM | Combined Margin |
| CME | Coordinating or Managing Entity |
| CPA | Component Project Activity |
| CPA-DD | Component Project Activity Design Document |
| CER | Certified Emission Reduction |
| CL | Clarification Request |
| CO₂ | Carbon Dioxide |
| CO₂e | Carbon Dioxide Equivalent |
| COP | Conference of Parties |
| DNA | Designated National Authority |
| DOE | Designated Operational Entity |
| DR | Document Review |
| EB | Executive Board |
| EIA | Impact Assessment / Environmental Assessment |
| ER | Emission Reduction |
| FAR | Forward Action Request |
| GHG | Greenhouse Gas |
| GMT | Greenwich Mean Time |
| I | Interview |
| ID | Identification Number |
| IMF | International Monetary Fund |
| IPCC | Intergovernmental Panel on Climate Change |
| IREDA | Indian Renewable Energy Development Agency Ltd |
| IRR | Internal Rate of Return |
| IT | Income Tax |
| JNNSM | Jawaharlal Nehru National Solar Mission |
| KP | Kyoto Protocol |
| kW | Kilo Watt |
| kWh | Kilo Watt Hours |
| L_y | Leakage |
| LoA | Letter of Approval |
| LSC | Local Stakeholder Consultation |
| MoV | Means of Verification |
| MNRE | Ministry of New and Renewable Energy |
| M&P | Modalities and Procedures |
| MOEF | Ministry of Environment and Forests |
| MOC | Modalities of Communications |
| MOP | Ministry of Power |
| MOU | Memorandum of Understanding |
| MW | Mega Watt |
| MWh | Mega Watt Hours |
| NCDMA | National CDM Authority |
| NO_x | Nitrogen Oxides |
| ODA | Official Development Assistance |

| | |
|----------------|---|
| OM | Operational Margin |
| O&M | Operation and Maintenance |
| PE | Project Emission |
| PLF | Plant Load Factor |
| PoA | Programme of Activities |
| PoA-DD | Programme of activities design document |
| PP | Project Participant |
| PPA | Power Purchase Agreement |
| PS | Project Standard |
| QA/QC | Quality Assurance and Quality Control |
| ROE | Return on Equity |
| SD | Sustainable Development |
| SPV | Solar Photo Voltaic |
| t | Ton |
| UNFCCC | United Nations Framework Convention on Climate Change |
| VVS | Validation and Verification Standard |
| WACC | Weighted Average Capital Cost |
| WREL | Welspun Renewables Energy Limited |
| WSMPPL | Welspun Solar Madhya Pradesh Private Limited |

TABLE OF CONTENTS

| | | |
|------|---|----|
| 1 | INTRODUCTION | 8 |
| 1.1 | Objective | 8 |
| 1.2 | Scope | 8 |
| 2 | METHODOLOGY | 8 |
| 2.1 | Desk Review of the Programme Design Documentation | 9 |
| 2.2 | Follow-up Interviews with Project Stakeholders | 11 |
| 2.3 | Resolution of Outstanding Issues | 14 |
| 2.4 | Internal Quality Control | 15 |
| 2.5 | Validation Team | 16 |
| 3 | VALIDATION FINDINGS | 16 |
| 3.1 | Approval and participation | 19 |
| 3.2 | Programme of Activities Design Documents | 21 |
| 3.3 | Programme Description | 21 |
| 3.4 | Eligibility Criteria for CPA Inclusion | 23 |
| 3.5 | Operational and Management Plan | 28 |
| 3.6 | Monitoring Plan | 29 |
| 3.7 | Baseline and Monitoring Methodology | 29 |
| 3.8 | Additionality | 38 |
| 3.9 | Emission Reduction From a typical CPA of the PoA | 41 |
| 3.10 | Monitoring Plan of a typical CPA | 41 |
| 3.11 | Environmental Impacts | 43 |
| 3.12 | Local Stakeholder Consultation | 43 |
| 3.13 | Comments by Parties, Stakeholders and NGOs | 43 |

Appendix A: Validation Protocol

Appendix B: Certificates of Competence

1 INTRODUCTION

Welspun Renewables Energy Limited (hereafter referred as “the PP” or “the CME”) has commissioned the DOE TÜV Rheinland (China) Ltd. to perform validation of the proposed CDM Programme of Activities (PoA) “Welspun Renewable Energy Program “in India (hereafter called “the PoA”). This report summarizes the findings of the validation of the PoA identified in the PoA Design Document (PoA-DD) with generic information relevant to all Component Project Activities (CPAs) to be included in the PoA; and one real case CPA-DD. The validation was performed on the basis of UNFCCC criteria for the PoA under the CDM, as well as criteria given to provide for consistent Programme operations, monitoring and reporting. The term “UNFCCC criteria” refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale and large scale CDM project activities, standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities and the subsequent decisions by the COP/MOP and CDM Executive Board. In addition to these criteria, host country criteria are also taken into account.

1.1 Objective

The purpose of a validation is to have an independent third party assess the PoA-DD and the associated real case CPA-DD (also known as specific CPA-DD). In particular, the eligibility criteria for inclusion and demonstration of additionality of CPAs, the Programme baseline determination, monitoring plan, and the Programme compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the Programme design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM PoA and is seen as necessary to provide assurance to stakeholders of the quality of the Programme and its intended generation of certified emission reductions (CERs).

1.2 Scope

The validation scope is defined as an independent and objective review of the PoA-DD, and the real case CPA-DD. The PoA-DD and the real case CPA-DD were reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale CDM project/ Programme activities, standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0002, version 12.3.0 and AMS-I.D, Version 17.

The validation team has, based on the requirements contained in the Validation and Verification Standard, Project Standard and the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities employed a rules-based approach, focusing on the identification of significant risks for Programme implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the PoA Managing Entity, CPA Implementer(s) and/or project participant(s) (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the Programme design.

2 METHODOLOGY

The validation consists of the following four phases:

- I. Publication of the Programme design documents (PoA-DD and CPA-DD) in UNFCCC for global stakeholder consultation;

- II. A desk review of the PoA-DD, and the associated real case CPA-DD;
 - III. On-site visit and follow-up interviews with Programme stakeholders; and
 - IV. The resolution of outstanding issues and the issuance of the final validation report and opinion
- The following sections outline each step in more detail.

2.1 Desk Review of the Programme Design Documentation

Documents provided by the project participant(s):

| Ref no. | Reference Document | |
|---------|---|---|
| /P01/ | PoA-PDD titled “Welspun Renewable Energy Program”, Version 01, dated 2012-05-10 | |
| /P02/ | 1 | PoA-PDD titled “Welspun Renewable Energy Program”, Version 02, dated 2012-08-09 |
| | 2 | PoA-PDD titled “Welspun Renewable Energy Program”, Version 03.1, dated 2012-10-24 |
| / P03/ | The Ministry of Environment & Forests, Government of India, has accorded approval of voluntary participation for the project “Welspun Renewable Energy Program” and has confirmed that the project contributes to sustainable development in India as per their letter no. 4/13/2012-CCC dated 2012-10-11 addressed to Ms. Sindoor Mittal, Welspun Renewables Energy Limited. | |
| / P04/ | Template for ER calculation with procedures/formula (Microsoft Excel spread sheet) | |
| / P05/ | Template for IRR analysis with procedures (Microsoft Excel spread sheet) | |
| / P06/ | Modalities of Communication dated 2012-08-09 | |
| / P07/ | Undertaking letter for ODA dated 2012-05-28 | |
| / P08/ | AM_CLA_0227: Application of combination of large scale methodology ACM0002 and small-scale methodology AMS-I.D in a renewable energy PoA from the Meth Panel permitting use of combination of ACM0002 and AMS-I.D in the PoA, where each CPA will apply only one technology and only one of the two methodologies. | |
| / P09/ | Commitment of sharing of 2% of CERs for the development of the local communities by Welspun Solar Madhya Pradesh Pvt Ltd | |
| /P10/ | Written communication from PP/CME regarding all corporate and personal details, including specimen signatures, are valid and accurate as per VVS para 54 (c) | |

Background investigation and other referred documents/websites:

| Ref no. | Reference Document |
|---------|--|
| /B01/ | 1. CDM Validation and Verification Standard, Version 02, EB 65, Annex 4. 2. CDM Project Standard, Version 1.0, EB 65, Annex 5. 3. CDM Project cycle procedure, Version 02.0, EB 66, Annex 64 |
| /B02/ | Approved Baseline & Monitoring Methodology: 1. ACM0002 Version 12.3.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” Request for registration can be submitted until 11 Jan 2013 23:59:59 GMT 2. AMS-I.D, version 17, “Grid connected renewable electricity generation” valid from 17 June 2011 |
| /B03/ | Tool to calculate the emission factor for an electricity system, version 02.2.1, EB 63 Annex 19 |
| /B04/ | 1. Guidelines for demonstrating additionality of micro scale project activities (EB 68, Annex 26) |

| | |
|-------|--|
| | <ol style="list-style-type: none"> 2. Guidelines on the demonstration of additionality of small-scale project activities (EB 68, Annex 27) Note: Previously known as Attachment A of Appendix B to simplified modalities and procedures of small scale CDM project activities 3. Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35, Annex 34) |
| /B05/ | <ol style="list-style-type: none"> 1. General Guidelines to SSC CDM methodologies, Version 19, EB 69, Annex 27. 2. Glossary of CDM terms, version 06. 3. Relevant CDM and PoA specific requirements (CDM M & P and decisions by the CMP and documents released by CDM EB) published on the UNFCCC CDM website |
| /B06/ | <p>PoA Specific guidelines / standards published by UNFCCC:</p> <ol style="list-style-type: none"> 1. Guidelines for completing the Programme design document form for CDM Programme of activities, Version 02- EB 67, Annex 28. 2. Guidelines for completing the component project activity design document form, version 01-EB 66, Annex 16 3. Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, EB 65-Annex 03 4. Approval of the application of multiple methodologies to a Programme of activities, version 1.0, EB 47, Annex 31 5. Guidelines on assessment of de-bundling for SSC project activities, Version 03, EB 54, Annex 13 6. 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"); 7. Procedures for review of erroneous inclusion of a CPA (current version 03, EB 61 Annex 22) (the "CPA Review Procedures") 8. Clarifications regarding the "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 60, Annex 26 9. F-CDM-PoA-DD - Programme design document form for CDM Programme of activities, Version 02 10. F-CDM-CPA-DD - Component project activity design document form, Version 02 |
| /B07/ | <p>Websites referred:</p> <ol style="list-style-type: none"> a) http://cdm.unfccc.int/ b) http://maps.google.co.in/ |
| /B08/ | Application of combination of large scale methodology ACM0002 and small-scale methodology AMS-I.D in a renewable energy PoA AM_CLA_0227 |
| /B09/ | Energy Scenario and Vision 2020 in India by P. Garg, Ministry of Environment and Forests, CGO Complex, Lodi Road, Delhi, India Journal of Sustainable Energy & Environment 3 (2012) 7-17 |
| /B10/ | All India region wise generating installed capacity (MW) of Power utilities including allocated shares in joint and central Sector utilities as on 2012-06-30 |
| /B11/ | India's Renewable Energy Sector - Potential and Investment Opportunities |

| | |
|-------|---|
| /B12/ | Indian Renewable Energy Status Report Background Report for DIREC 2010 by D. S. Arora (IRADe), Sarah Busche (NREL), Shannon Cowlin (NREL), Tobias Engelmeier (Bridge to India Pvt. Ltd.), Hanna Jaritz (IRADe), Anelia Milbrandt (NREL), Shannon Wang (REN21 Secretariat) NREL/TP-6A20-48948 dated October 2010 |
| /B13/ | Renewable Energy at a Glance Cumulative deployment of various renewable energy projects/systems/devices in India as on 2012-03-31 |
| /B14/ | EIA Notification published in the Gazette of India, Ministry of Environment and Forests dated 2006-09-14 to confirm that no EIA is necessary Government of India, Ministry of Environment and Forests, Office memorandum dated 2011-05-13 confirming that solar power projects are not covered under EIA and no environmental clearance is required |
| /B15/ | Commissioning Status of Solar PV Projects under Batch – I, Phase -I of JNNSM |
| /B16/ | M.P. Electricity Regulatory Commission Bhopal, Tariff Order for Solar Energy Based Power Generation in Madhya Pradesh dated July 2010 |
| /B17/ | DIREC 2010 report |
| /B18/ | <ol style="list-style-type: none"> 1. EB 50, Annex 13 - Guidelines for objective demonstration and assessment of barriers 2. EB 52, Annex 60 - Guidelines for Assessing Compliance with the Calibration Frequency Requirements 3. EB 55 Annex 38 - Registration of a Programme of activities as a single CDM project activity and issuance of CERs for a PoA 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 6. EB 62 Annex 13 – Guidance on the demonstration and Assessment of prior consideration of the CDM 7. EB 68, Annex 3 - Guidelines for the consideration of interactive effects for the application of multiple CDM methodologies for a Programme of activities 8. EB 69 Annex 20 - Tool for the demonstration and assessment of additionality 9. EB 48, Annex 11 “Guidelines for the reporting and validation of plant load factors” |
| /B19/ | http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm (CO ₂ Baseline Database for the Indian Power Sector User Guide Version 7.0, January 2012 - Government of India Ministry of Power (Central Electricity Authority)) |
| /B20/ | http://www.cea.nic.in/reports/regulation/meter_reg.pdf (Section 18.1 (b) Page 12 states all interface meters shall be tested at least once in five years) |

The main changes between the PoA-DD, version 01 /P01/ published for the 30 days stakeholder commenting period and the final version /P02-2/ submitted for registration are presented in the below table as follows:

| Topic | Webhosted PoA-DD /P01/ | Final version of PoA -DD/P02-2/ | Assessment |
|---------------------------------------|--|--|---|
| PoA title | Welspun Renewable Energy Program | Welspun Renewable Energy Program | No change |
| Parties | Government of India | Government of India | No change |
| CME/Project participants | Welspun Renewables Energy Limited | Welspun Renewables Energy Limited | No change |
| Scope | Sectoral Scope 01 (Energy Industries) | Sectoral Scope 01 (Energy Industries) | No change |
| Methodology and activity scale | 1. ACM0002 Version 12.3.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable | 1. ACM0002 Version 12.3.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable | Validity of the methodology is included in the revised DDs. |

| | | | |
|--|---|---|--|
| | sources” 2. AMS-I.D: “Grid connected renewable electricity generation”; Version 17 | sources” Request for registration can be submitted until 2013-01-11 23:59:59 GMT 2. AMS-I.D, version 17, “Grid connected renewable electricity generation” valid from 2011-06-17 | |
| Amount of emission reductions (tCO₂) | Quantification of ERs at PoA level is not required as per the PoA-DD template. | Quantification of ERs at PoA level is not required as per the PoA-DD template. | Not Applicable |
| Ex-ante parameters | In the webhosted PoA-DD /P01/, CME had opted to fix OM, BM and resultant CM parameter s fixed as ex-ante for the first crediting period of the PoA. | In the validated PoA-DD /P02/, CME has opted to fix OM, BM and resultant CM as ex-ante for the first crediting period of the PoA. The emission factors for Southern grid is also added. | Emission factor for Southern grid are added. |
| PoA location | Geographical boundary of India | Geographical boundary of India | No change |

2.2 Follow-up Interviews with Programme Stakeholders

In order to reach to a Validation Opinion an interview was conducted on 2012-06-25. Prior to the interview salient points to be discussed were planned. Date of interview, interviewee and points discussed are given in the following table.

| Sr. No | Date | Name | Organization | Topic |
|--------|------------|---------------------|--|---|
| /I-01/ | 2012-06-25 | Mr. G. Udayabhaskar | Vice President-Environment, Welspun Energy | <ul style="list-style-type: none"> Coordinating/managing entity, host party 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 Operational and management arrangements established by the coordinating/ managing entity for the implementation of the PoA, including Environmental impacts and analysis |

| | | | | |
|--------|------------|-------------------------|--|--|
| | | | | <ul style="list-style-type: none"> Stakeholder Consultation Procedure as required under the CDM Rules Public funding Letter(s) of Approval as required under the CDM Rules Confirmation regarding no prior CDM registration or inclusion in another PoA |
| /I-02/ | 2012-06-25 | Ms. Sindoor Mittal | Managing Director, Welspun Energy | Following topics are discussed during telephonic interview, <ul style="list-style-type: none"> Employment status Responsibilities MOC Work plan and frame work of PoA |
| /I-03/ | 2012-06-25 | Mr. Ashwin Kumar Pandey | Dy. Manager- Environment Health and safety, Welspun Energy | <ul style="list-style-type: none"> Unique identification of the CPA by location or if applicable by registration code; Contact details of persons responsible for each CPA 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 |
| | 2012-06-25 | Mr. Suranjan Sarkar | Dy. General Manager- Environment Health and safety, Welspun Energy | |
| | 2012-06-25 | Mr. Shobhit Aggarwal | Senior Engineer, Environment, Welspun Energy | |
| /I-04/ | 2012-06-25 | Mr. Manpreet Singh | Manager, KPMG | <ul style="list-style-type: none"> 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 |
| | 2012-06-25 | Mr. Sandip Keswani | Senior Advisory, KPMG | |
| | 2012-06-25 | Mr. Japneet Kaur | Executive, KPMG | |

| | | | | |
|--|--|--|--|--|
| | | | | <ul style="list-style-type: none"> • Consistency between CDM-POA-DD and the PoA-Generic CDM-CPA-DD • The correct application of the baseline and monitoring methodology (ies) and tools, • 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) • The Programme 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) |
|--|--|--|--|--|

Validation Team considered the views obtained in these interviews while arriving at Validation Opinion.

2.3 Resolution of Outstanding Issues

The objective of this phase of the validation is to resolve any outstanding issues which need be clarified prior to TÜV Rheinland’s conclusion on the PoA design. In order to ensure transparency a validation protocol is customized for the Programme. The protocol shows in transparent manner criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

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

The validation protocol consists of three tables. The different columns in these tables are described in the figure below. The completed validation protocol for the PoA is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfillment of CDM criteria or where a risk to the fulfillment of Programme objectives is identified. Corrective action requests (CAR) are issued, where:

- i) Mistakes have been made with a direct influence on Programme results;
- ii) CDM and/or methodology specific requirements have not been met; or
- iii) There is a risk that the Programme would not be accepted as a CDM PoA or that emission reductions will not be certified.

A request for clarification (CL) may be used where additional information is needed to fully clarify an issue.

A forward action request (FAR) may be raised to highlight issues related to the PoA implementation that require review during the first verification.

Validation Protocol Table 1: Requirement checklist for PoA-DD

| Checklist Question | Reference | Means of verification (MoV) | Comment | Draft and/or Final Conclusion |
|--|---|--|--|---|
| The various requirements in Table 1 are linked to checklist questions the Programme should meet. The checklist is organized in different sections, following the logic of the small-scale PoA-DD templates, version 02. Each section is then further subdivided. | Gives reference to documents where the answer to the checklist question or item is found. | Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable. | The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. | This is either acceptable based on evidence provided (OK), or a corrective action request (CAR) due to non-compliance with the checklist question (See below). A request for clarification (CL) is used when the validation team has identified a need for further clarification. |

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests on the PoA DD.

| CL/CAR No. | Observations | Reference | Summary of project owner response | Validation team conclusion |
|-------------------|--|---|--|--|
| CL/CAR XX | If the conclusions from the draft Validation are either a CAR or a CL, these should be listed in this section. | Reference to the checklist question number in Table 1 where the CAR or CL is explained. | The responses given by the project participants during the communications with the validation team should be summarized in this section. | This section should summarize the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final Conclusion". |

Validation Protocol Table 3: List of forward action requests (FARs)

| FAR Number | Observations | Reference | Summary of project owner response | Validation team conclusion |
|-------------------|--|---|--|--|
| FAR- XX | If the conclusions from the draft Validation are FARs, these should be listed in this section. | Reference to the checklist question number in Table 1 where the FAR is explained. | The responses given by the project participants during the communications with the validation team should be summarized in this section. | This section should summarize the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final Conclusion". |

Figure 1: Validation protocol tables

2.4 Internal Quality Control

Before the assessment begins, members of the team covering the technical area(s), Sectoral scope(s) and relevant host country experience for evaluating the CDM PoA/CPA are appointed. The validation report including the validation findings underwent a technical review. The technical review was performed by a technical reviewer qualified in accordance with TÜV Rheinland's qualification scheme for CDM validation and verification.

2.5 Validation Team

| Validation Team | | | Type of Involvement | | | | | | |
|--------------------------------|---------------------------------|--|-------------------------|-------------|---------------------------|--------------------------------|---------------------------|----------------------|--------------------|
| Full name | Affiliation TÜV Rheinland | Appointed for Sectoral Scopes (Technical Areas) | Supervising the work | Desk review | Site Visit + Interview | Report and protocol Writing | Technical Expert Input | Reporting Support | Technical Reviewer |
| Mr. R. Murali | India | 1.2, 3.1 | X | X | | X | X | | |
| Mr. Ma. Paa. Puratchikkanal | India | 1.2, 3.1, 6.1, 13.1, 13.2, 15.1 | | X | X | | X | X | |
| Ms. Indumathi C | India | 1.2 | | | | | | | X |

3 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

The final validation findings relate to the Programme design as documented and described in the PoA-DD.

3.1 Approval and participation

Welspun Renewables Energy Limited, the CME for the “Welspun Renewable Energy program” CDM-POA project activity. The current CDM PoA has received letter of approval reference number 4/13/2012-CCC dated 2012-10-11/P03/, soft copy has been received from the CME is verified. The name of the CME is consistent throughout the PoA-DD, under A.4 and Appendix 1/P02-2/. The LoA issued by the DNA of India, MoEF mentions the same name as the CME and project title. The title of the project presented to host country DNA (India) is same as the title provided in the webhosted and the current final version of PoA-DD/P02-2/. The project plans to install renewable energy technologies (Solar PV, Solar Thermal and Wind) in the geographical boundaries of India/I-01/, /I-02/.

The letter of approval mention about the voluntary participation in the PoA activity by WREL and also mentions that India has ratified the Kyoto Protocol in August 2002 and the project complies with the host country sustainable development criteria. TRC reviewed the sustainable development defined by India². The project overall creates many environmental and social benefits and NCDMA has assessed the same during the meeting held on 2012-08-24 for the proposed PoA. The PP has submitted a monitoring plan for the share 2% of the net CER revenue for development activity only for large scale project activity while applying for host country approval process which can be verified from the following website (http://cdmindia.gov.in/downloads/Comparision%20of%20PCN_30.03.doc). The commitment by the WSMPPPL towards Sustainable development plan/P09/ is also verified by the DOE. The host country has accorded approval to the project; the approval letter states that the project contributes to sustainable development.

However CAR-01 was raised and closed successfully.

² http://envfor.nic.in/divisions/ccd/cdm_iac.html

The Validation Team can confirm that issued LoA from India as the host party refers to the precise proposed project title as in the PoA-DD. The Validation Team confirms that the project participants are listed in tabular form in section A.4 of the PoA-DD and this information is consistent with the contact details provided in Appendix 1 of the PoA-DD. The letter of approvals were also found to be unconditional with respect to § 39 (a) to (d), 41 - 43 of VVS, version 02 /B01-1/. The LoA is checked and found in compliance of CDM requirements including requirements of PoA vide § 169 to 172 of annex 5 of EB 65.

The below table summarizes the project participants and parties involved. The authenticity of the letters of approval has been validated by TÜV Rheinland validation team. These LoA/P03/ are therefore regarded as valid and meeting the requirements.

| | |
|--|--|
| Project participants | <i>Welspun Renewables Energy Limited</i> |
| Parties involved | <i>India</i> |
| Approval | |
| LoA received | <i>Yes</i> |
| Date of LoA | <i>2012-10-11</i> |
| Reference to document | <i>4/13/2012-CCC</i> |
| LoA received from | <i>WREL</i> |
| Validation of authenticity | <i>The LoA submitted as a soft copy through e-mail has been cross verified with the original copy. Thus the LoA submitted by WREL is valid.</i> |
| Validity of LoA | <i>Valid</i> |
| Participation | |
| Party is party to Kyoto Protocol | <i>India ratified Kyoto protocol in August 2002</i> |
| Voluntary participation | <i>Yes</i> |
| Diversion of official development aid towards host country | <i>No, the project has not being financed by other parties which leads to the diversion of the official development towards host country and forward of carbon revenue. PP has also submitted the undertaking letter declaring that no official development and public funding from annex 1 countries was involved in developing and implementing the proposed PoA Project Activity and included as one of the selection criteria for the inclusion of CPA/P07/.</i> |
| Project contribution to SD | <i>Yes, the project is a renewable energy based project and sustainable criterion has been mentioned in LoA and in line with the host country (India) requirements.</i> |

Validation of ODA

The validation did not reveal any evidence that this PoA can be seen as a diversion of ODA. It is also confirmed by the interview with Mr. G. Udayabhaskar/I-01/ and Ms. Sindoor Mittal/I-02/, and letter provided by CME /P07/ about no ODA diversion from Annex-I party in the development of the PoA.

Confirmation of MoC/P06/

| Requirement of MOC | Criteria fulfilled | Determination by the validation team |
|-------------------------------|---|---|
| Is the focal point identified | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <i>Ms. Sindoor Mittal, /I-02/ is identified as the focal point for the proposed PoA. MOC/P06/ and LoA/P03/ have been verified for the same.</i> |

| | | |
|---|---|---|
| Is the MOC signed by all project participant (including focal point identified entity/personal) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <i>Welspun Renewables Energy Limited is the only CME/project participant identified as focal point for the proposed PoA. Ms. Sindoor Mittal is the person responsible for signing and further communication with EB/UNFCCC.</i> |
| Is the written confirmation obtained by the PP's stating the authorization, specimen signatures and personal details, employment status are valid and accurate? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <i>During the site visit, the validation team interviewed Mr. Udayabhaskar and after the site visit, the DOE interviewed Ms. Sindoor Mittal through telephone and confirmed the employment status. Thus the DOE confirms that the personal details, employment status are valid and accurate.</i> |
| Is MOC received by the validation team from the PP with whom DOE has the contractual relationship? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <i>Yes, the MOC received by the DOE from WREL with whom TRC has contracted for validation services.</i> |

The DOE can confirm that the signatory and contact details on the MoC are authorized and credible. The assessment of § 53, VVS Version 02 is done by referring to § 54(a) of VVS version 02. The MoC has been directly received from the CME by email dated 2012-08-23, hence requirement of § 55, VVS version 02 is met.

The validation team confirms that the applicable latest template (http://cdm.unfccc.int/Reference/PDDs_Forms/Registration/reg_form19.doc) is been employed by the project participant for the MOC. The MOC is been received from the DOE's contractual project participant. All the personal who have duly signed the MOC are been confirmed from the written communication by the project proponent regarding their personal identity, specimen signatures and employment status/I-01/.

3.2 Programme of Activities Design Documents

The PoA-DD/P02-2/ is in compliance with relevant form /B06-9/ and PoA filling guidance /B06-1/ as provided by UNFCCC. The most recent version of the forms is used. Validation team confirms that the guidelines for the completion of the PoA documents (as contained in the PoA-DD guideline /B06-1/) in their most recent version have been followed. Relevant information was provided by the Managing entity and/ or project participants in the applicable PoA sections.

Nevertheless CAR-02, CL-01 are raised and closed successfully.

3.3 Programme Description

The "Welspun Renewable Energy Program" (here after referred as the "PoA") is promoted by the Coordinating and Managing Entity (CME) "Welspun Renewables Energy Limited". This Programme aims to promote Solar PV, Solar Thermal and Wind power projects in India. The CPAs under the PoA will be implemented in geographical area of India. According to the description provided in PoA-DD and based on interview/I-01/, /I-02/, /I-03/ with the CME, consultant/I-04/ and relevant stakeholders, validation team confirms that this PoA is a voluntary coordinated action by the CME. The emission reductions at the CPA level would occur due to implementation of component project activities (CPAs) i.e., installation of renewable energy project (Only solar and wind technology) supplying electricity to the regional/national grid of India. The brief explanation of the technology employed in the proposed PoA-DD is as follows:

| Project type | Technology/Measure | Description of pre-project scenario |
|--------------|--|--|
| Solar PV | The solar PV cells convert light energy in to useful electrical energy. The solar panels are | No renewable energy power plant installed or operated prior to the implementation and hence only Green |

| | | |
|------------------|--|---|
| | installed in arrays. The modules in the each array are connected either parallel or series connection according to the site condition in order to get the preferred current & voltage which match with the rated input parameters of the inverter. The Inverter connected in each array converts the DC current to AC current. Finally the AC current will be supplied to the regional/national grid of India. | field project are allowed to be included in the PoA. |
| Solar Thermal | The project activity proposed to use concentrator using the object such as mirrors or lenses etc to focus the sunlight radiation or solar thermal energy to area where it will convert the working fluid to heat which drives a heat engine like steam turbine to generate electrical energy which will be supplied to the regional/national grid of India. | No renewable energy power plant installed or operated prior to the implementation and hence only Green field project are allowed to be included in the PoA. |
| Wind Power plant | In wind energy generation, kinetic energy of wind is converted into mechanical energy and subsequently into electrical energy. With the available wind energy, the wind turbines produce electricity which will be supplied to the regional/national grid of India. | No renewable energy power plant installed or operated prior to the implementation and hence only Green field project are allowed to be included in the PoA. |

The measure involves GHG emission reduction due to displacement of grid electricity by the CPAs of the PoA. The grid electricity is predominantly generated by utilizing fossil fuel fired power plants. Each small scale CPA and large scale CPA of the Programme involves implementation of either solar PV project or Solar Thermal power plant or wind power plant supplying electricity to the grid and not combinations of two technology/measure/I-01/, /I-02/ which was confirmed during the interview with WREL. As per the PoA-DD, there is no fossil fuel consumption by the CPAs of the PoA for Solar PV and Wind power plant; however for solar thermal power plants as per the methodology the project emission will be calculated. The individual CPA of the PoA shall use either large scale methodology of ACM 0002, Version 12.3.0 or small scale methodology AMS-I.D version 17 approved by Executive board³/P08/. From the site visit and review of PoA-DD, it is confirmed that CPAs of the PoA shall utilize brand new equipment; hence leakage is not applicable as per the applied methodology. Review of PoA-DD /P02-2/ reveals that confirmation that technology is not transferred from any other site is one of eligibility criteria, hence based on this validation team confirms that no leakage shall be applicable of the CPAs of the PoA. Nevertheless CL-02 is raised and closed successfully.

From the site visit interviews and desk review of PoA-DD /P01/ and other associated documents, it is revealed that this Programme does not involve any ODA funding. Thus, the validation team considers that no ODA funding from any Annex 1 country has been involved under this Programme. This is further confirmed by the undertaking /P07/ provided by the CME.

As per the PoA-DD /P02-2/, the starting date of PoA and starting of PoA validation is mentioned as 2012-05-12 i.e., date of webhosting of the PoA-DD for global stakeholder consultation. The length of the PoA is taken as 28 years, this is in line with §197 of VVS version 02. In the PoA-DD /P02-2/, it has been confirmed that no CPA shall be applicable for the inclusion in the PoA if the start date is before the start

³ <http://cdm.unfccc.int/methodologies/PAmethodologies/clarifications/58686>

of validation. This is in conformity with the §193 of annex 04 of EB 65. Validation team based on above confirms the compliance of §189 of VVS version 02 /B01-1/.

3.4 Eligibility Criteria for CPA Inclusion

Review of PoA-DD /P02-2/ and site visit interview with representatives of CME reveals that the CME of the PoA employs clear and unambiguous criteria for the inclusion of the CPAs. The eligibility criteria have been stated and validation team confirms the eligibility criteria is in line with requirement of § 14, annex 3 of EB 65 /B06-3/. Additionality and applicability of the applied methodology are the eligibility criteria as per the PoA-DD /P02-2/, which is deemed appropriate and acceptable to the validation team. The eligibility criteria can be checked at the CPA level by the CME and shall be confirmed by the DOE before inclusion of the CPAs in the PoA.

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|---|--------------------------------------|---|---|
| 1. | The CPA shall be located within the geographical territory of India. | (a) | Any of the following document shall be provided: <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Land Documents | At the time of inclusion request of any proposed CPA, CME shall submit cited documents to the DOE who will be performing validation for the consistency and integrity check to confirm that CPA shall be located within the geographical boundary of India. Thus the evidence identified for selection criteria is deemed appropriate. |
| 2. | Confirmation that the CPA is not registered or being registered as a stand-alone CDM project outside of this PoA, a bundled CDM Project Activity or another registered PoA. The CPA shall not lead to double counting of emission reductions. | (b) | Any of the following document shall be provided: <input type="checkbox"/> GPS Coordinates <input type="checkbox"/> Analysis of projects in the CDM pipeline <input type="checkbox"/> Undertaking from the CPA implementing body confirming that project activity is not an individual CDM project or part of any other PoA | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check in line with “Guidelines on assessment of de-bundling for SSC project activities” Version 03. Under taking letter from the CPA implementer is one of the measures to avoid double counting. In addition GPS coordinates, CDM project pipeline sheet shall be considered for the assessment of de-bundling and double counting. Thus satisfied the eligibility criteria. |
| 3. | The CPA shall | (c) | Any of the following | At the time of inclusion |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|--|--------------------------------------|---|--|
| | confirm to one of technological scenarios as described in section A.6 of Part I of the PoA-DD. | | document shall be provided: <input type="checkbox"/> Purchase order of equipment <input type="checkbox"/> Government Clearances <input type="checkbox"/> Feasibility Study / Detailed Project Report prepared by third party <input type="checkbox"/> Land Document <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Grid Evacuation approval/agreement | request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check in the PDD that only one technology is implemented in the CPA. DOE is required to check the project scenario i.e., Green field projects opted by the proposed CPAs of the PoA. The proposed PoA deliver the generated power to the grid which can be verified from the Grid evacuation clearance, monitoring plan of CPA-DD, power purchase agreement. Thus the eligibility criterion is met. |
| 4. | The start date of the CPA shall not be before the commencement of validation of the PoA as a whole (date the PoA was published for global stakeholders comment was 2012-05-12) | (d) | One of the following documents shall be provided: <input type="checkbox"/> Purchase orders/contracts for equipment <input type="checkbox"/> Construction/operation services <input type="checkbox"/> Documents in line with the Glossary of CDM terms | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criteria will ensure CPA start date should not be before start date of validation as required by the §193 of annex 04 of EB 65. |
| 5. | The CPA shall meet the applicability and other requirements of the methodology ACM 0002 and AMS-I.D. | (e), § 26 | As described in Part I, section B.2 of the PoA-DD the CPA shall meet all relevant requirements of the methodology. In each CPA-DD, section D.2 the applicability of the individual CPA to the conditions of the methodology shall be assessed. The required evidence documentation shall be provided to the DOE at the time of inclusion. The applicability is further | The DOE at the time of inclusion of the CPA shall confirm the eligibility criterion w.r.t the applicability of the ACM 0002 and AMS-I.D to the proposed CPAs of the PoA. Thus the eligibility criterion is met. |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|---|--------------------------------------|---|--|
| | | | demonstrated as follows, <input type="checkbox"/> Micro scale CPA Criteria <input type="checkbox"/> Small scale CPA Criteria <input type="checkbox"/> Large scale CPA Criteria One of the following documents shall be provided: <input type="checkbox"/> Detailed Project Report prepared by third party <input type="checkbox"/> Clearances <input type="checkbox"/> Purchase Orders <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Grid Evacuation approval / agreement | |
| 6. | <p>Demonstration of additionality as described in section B.5 of the PoA-DD in line with § 7 to 12 of annex 2, EB 65.</p> <p>Additionality for the CPAs is demonstrated as follows: The additionality for the proposed PoA has to be demonstrated as per the following Guidelines, 1) Guidelines for demonstrating additionality of micro scale project activities for micro scale project. 2) Guidelines on the demonstration of additionality of small-scale project activities for SSC project 3) Guidelines for objective demonstration and assessment of barriers 4) Guidelines on the assessment of investment analysis and “Tool for the demonstration and assessment of additionality” for large</p> | (f) | <p>The following documents at CPA level shall be provided: <input type="checkbox"/> Documentation to support the conditions that shall be met for projects to be automatic additional according to the “Guidelines for demonstrating additionality of micro scale project activities”. The documents such as Detailed Project Report prepared by third party / submitted to banks for financing, Clearances, Purchase Orders <input type="checkbox"/> Documentation to support the conditions that shall be met for projects to be additional according to the “Guidelines on the demonstration of additionality of small-scale project activities” and “Guidelines on the assessment of investment analysis”. The documents such as Detailed Project Report prepared by third party / submitted to banks for financing, Clearances, Purchase Orders <input type="checkbox"/> Documentation to support the conditions that shall be met for projects to be additional according to the “Guidelines on the assessment of investment</p> | <p>The DOE at the time of inclusion of the CPA shall confirm that the additionality argument put forth in the PoA DD for the typical CPAs of the PoA is valid and applicable for the subject CPA under consideration i.e., DOE shall check that installed capacity of the project and accordingly the additionality arguments shall be decided. This will ensure the project compliance with additionality as per the requirements of EB. Thus the eligibility criterion is met.</p> |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|--|--------------------------------------|--|--|
| | scale project. | | <p>analysis”, or “Guidelines for objective demonstration and assessment of barriers” and “Tool for the demonstration and assessment of additionality”. The documents such as Detailed Project Report prepared by third party / submitted to banks for financing, Clearances, Purchase Orders</p> <p>CPA implementer shall provide all relevant documents to substantiate above to DOE at time of inclusion according the additionality check.</p> | |
| 7. | The CPA shall conduct a local stakeholder consultation and Environmental Analysis (if mandated by law) at CPA level. This shall be carried out prior to the inclusion. | (g) | <p>The following document shall be provided:</p> <p><input type="checkbox"/> Meeting minutes and other related documents of the local stakeholder consultation.</p> <p><input type="checkbox"/> Attendance records</p> <p><input type="checkbox"/> Photographs</p> <p><input type="checkbox"/> Invitation letters</p> <p><input type="checkbox"/> Newspaper advertisements</p> <p>If law / regulations mandate environmental analysis:</p> <p><input type="checkbox"/> Copy of environmental analysis report.</p> <p>If there is no law / regulation to mandate environmental analysis:</p> <p><input type="checkbox"/> Declaration from CPA implementer regarding applicable laws for the CPA and explanation why environmental analysis is not required.</p> | As per the provisions in PoA-DD, Local Stakeholder Consultation and Environmental Analysis will be done at the CPA level. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. Hence accepted. |
| 8. | Confirmation on involvement of public funding or ODA from Annex I Parties in CPA | (h) | <p>The following document shall be provided:</p> <p><input type="checkbox"/> Declaration (document) from the CPA Implementer regarding the no involvement of public funding or ODA from Annex I Parties.</p> | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|---|--------------------------------------|--|---|
| | | | <input type="checkbox"/> Confirmation in the CPA-DD regarding no involvement of public funding or ODA from Annex I Parties. | ensure non-diversion of ODA during inclusion validation. Hence accepted. |
| 9. | Does the CPA have a Plant Load Factor available as per “Guidelines for the reporting and validation of plant load factors”? | (Additional Criterion as per § 14) | The following document shall be provided: <input type="checkbox"/> Application to banks and/or equity financiers for project financing <input type="checkbox"/> Application to government for project activity implementation approval <input type="checkbox"/> Study by a third party contracted by the project participants (e.g. an engineering company) or any other document as per guidance | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure applicability of PLF proposed in the CPA. Hence accepted. |
| 10. | 1) Is the proposed CPA a voluntary initiative, not mandated by any policy and/or regulation in the host country? 2) Is the CPA in conformance with mandatory laws and regulations? | (Additional Criterion as per § 14) | The following document shall be provided: <input type="checkbox"/> Relevant abstracts from public/regulatory sources to demonstrate that the project is not mandated by law/regulation. <input type="checkbox"/> Relevant abstracts from public/regulatory sources or clearances to demonstrate that the project is in conformance with mandatory laws and regulations. | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check on voluntary initiative of CPA or mandatory requirement as per host country regulations. |
| 11. | CPA of the PoA shall meet the small-scale or micro scale threshold criteria (i.e. combined installed electricity generation capacity less than or equal to 15 MW) and remains within those thresholds throughout the crediting period of the CPA. | (k) | The CPA implementer and CME shall consider this condition in the CPA DD and Emission reduction spread sheet. One of the following documents shall be provided: <input type="checkbox"/> Detailed Project Report prepared by third party <input type="checkbox"/> Clearances <input type="checkbox"/> Purchase Orders <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Grid Evacuation approval / agreement | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure applicability of the applied methodology and respective threshold throughout the crediting period as well as ensures that CPA complies with additionality |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|---|--------------------------------------|--|--|
| | | | | requirements put forth. |
| 12. | Confirmation that the CPA is not a de-bundled component of another large-scale CPA or CDM project activity as per guidance given by the CDM Executive Board | (1) | The following document shall be provided: <input type="checkbox"/> Undertaking from the CPA owner. <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Analysis of projects in the CDM pipeline. <input type="checkbox"/> Contract with WREL | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure de-bundling check in line with Guidelines on assessment of de-bundling for SSC project activities” Version 03 during CPA inclusion for validation. |
| 13. | Can the electricity generated from the individual CPA be accurately measured and recorded to calculate actual emission reductions according to the applied baseline and monitoring methodology? | (Additional Criterion as per § 14) | The following document shall be provided: <input type="checkbox"/> Monitoring plan of CPA-DD <input type="checkbox"/> Declaration from the CME implementer <input type="checkbox"/> Operation and Maintenance manual | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure electricity generated from the individual CPA in accordance with monitoring methodology during CPA inclusion for validation. |
| 14. | Will the CPA conduct calibration of energy meters at least once every three years? | (Additional Criterion as per § 14) | The following document shall be provided: <input type="checkbox"/> Power Purchase agreement <input type="checkbox"/> Local/National standards | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure calibration of energy meter at least once in 3 year during CPA inclusion for validation. |
| 15. | Has the CPA owner entered into a contractual agreement with WREL at the CPA level? | (Additional Criterion as per § 14) | The following document shall be provided: <input type="checkbox"/> Contract Document between CME and CPA implementer. | The valid contractual agreement will be a binding for the CPA implementer and this will ensure agreement to the provisions of the PoA by |

| Nr | Eligibility criteria description | Compliance with §14, Annex 03, EB 65 | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|----------------------------------|--------------------------------------|--|-----------------------------------|
| | | | | the CPA implementer. |

In addition to the above criteria, the PP has addressed the 'Updating eligibility criteria' as per § 21 to § 25 of EB 65, Annex 3 in the PoA-DD which is verified and found to be valid. Furthermore, Validation team has confirmed the implementation of the management plan of CME based interview with the WREL team thus confirms that the CME has competencies to check the features of potential CPAs of PoA and also have competency to check that each CPA meets all requirements and eligibility criteria before submission to the DOE for the inclusion. Based on above validation team confirms the compliance of § 16 and § 17 of annex 3 of EB 65 /B06-3/. Nevertheless CAR-03, CAR-04 and CAR-06 are raised and closed successfully.

3.5 Operational and Management Plan

Validation team based on the review of PoA-DD /P02-2/ confirms that clear and transparent description of the operational and management arrangement has been established by the CME for the PoA. The same has also been confirmed during the site visit interview/I-02/, /I-03/. All the details of individual CPAs including the documents shall be controlled by CPA implementer. Furthermore the records of individual CPAs shall be maintained at the CME's implementer. Individual CPA implementer shall sign an agreement with the CME and agrees to comply with all terms and conditions of the PoA including those related to the monitoring and data control. The same has been confirmed from the review of template agreement between the CPA implementers and the CME /P09/. This agreement is also one of the eligibility criteria. Hence any CPA which would be included in the PoA shall follow the operation and management plan of the PoA as stated in the PoA DD and signed agreement.

WREL is the focal point for the operational and monitoring plan of the PoA. During interview with the WREL team it can be confirmed by the DOE that the following activities are taken care by WREL.

- Development of F-CDM-PoA-DD and F-CDM-CPA-DD
- Checking eligibility criteria before inclusion of CPA
- Approach NCDMA and Annex-I party (ies) for LoA
- Co-ordination with the DOE
- Conduct training and capacity building exercises for personnel of CPA implementing bodies for data monitoring, recording and reporting in accordance with CPA-DD
- Collecting and compilation of data on monitoring parameters from CPA implementers as per the monitoring plan of CPA-DD
- Communication with UNFCCC for issuance request and other formalities

As required by § 17 of EB 65, Annex 3, CDM PoA team will be appointed by WREL for the identification of CPA and to cross check against the eligibility defined in the PoA-DD. Based in the interview with WREL, it was confirmed by the DOE that the CDM PoA team will be a qualified professionals with necessary knowledge on CPAs for inclusion under the PoA.

WREL will also be responsible for entering in to the contract with CPA implementer, management of records and data associated with each CPA, rights to claim CERs from the CPAs, check for double-counting of emission reductions through cross checking in UNFCCC project list and CDM pipeline list, continuous improvements of the PoA management system. In due course of time as a part of continual improvement shall address any other relevant elements if required. This shall be checked again by the DOEs at the time of inclusion of any CPAs in the PoA in line with the requirement of §18 of annex 3 of EB 65 /B06-3/. This also complies with the requirement of §186 of VVS version 02 /B01-1/.

WREL confirm that CPA or any part of it has not been and will not be registered as a single CDM project activity or as a CPA under another PoA and that the implementing body is aware that the CPA will be subscribed to the present PoA. Based on above it can be confirmed that the CME would be able to ensure that no double-counting occurs. Also, since as each CPA is uniquely identified in the format of CPA-DD, the

CME can check whether a CPA under the PoA is already a registered CDM project or CPA in another PoA from the UNFCCC website.

Monitoring of CPA will be done by the CPA implementer. The CPA implementer are bound to produce the documents related to construction, commissioning, operation and maintenance of power plant, monitoring plan, ensure plant personnel attend trainings related to monitoring, recording and reporting of data.

By reviewing this management system procedure mentioned in the PoA-DD, the validation team confirms that the CME have the competencies to check the features of potential CPAs and can ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. Based on above, validation team confirms the compliance of following, in the management system of CME (in line with the requirement of §17 annex 3 of EB 65 /B06-3/). This also complies with the requirement of § 203 of VVS version 02 /B01-1/.

3.6 Monitoring Plan

There is no sampling approach for the verification of the CPAs of the PoA. As per PoA-DD /P02-2/, CME of the PoA shall opt each of the CPA for the verification. Furthermore for the monitoring meters to be opted by CPAs of the PoA, 100% data will be monitored and no meters will be monitored on sampling approach. The same has been verified from the PoA-DD /P02/. Review of monitoring procedure /P09/ the PoA reveals that monitoring plan provides a transparent system to ensure that no double counting occurs and that the status of verification can be determined any time for each CPA. The system to avoid double counting has been indicated in the PoA-DD. The description provided in the PoA-DD/P02-2/ on the operational and management arrangements was confirmed based on document review and through site visit interviews.

3.7 Baseline and Monitoring Methodology

3.7.1 Applicability of the selected methodology

The compliance of the applied baseline and monitoring methodology /B02/ is a part of eligibility criteria as mentioned in the PoA-DD /P02-2/. The same shall be checked by the DOE during inclusion of the CPA in the PoA. The assessment of the validation team (for the requirement to be checked during inclusion) is summarized below separately for AMS-I.D, version 17 and ACM 0002, version 12.3.0:

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|---|---|--|---|
| <p>§1: This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) Supplying electricity to a national or a regional grid; or</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p> <p>Footnote 1: Refer to EB 23; annex 18 or</p> | <p>A CPA will consist of a renewable energy generation unit that:</p> <p>a) Implement Solar PV or Solar Thermal or Wind power generation</p> <p>b) Electricity generated by the renewable energy unit will be supplied to national or</p> | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement</p> <p><input type="checkbox"/> Clearances from government agencies</p> <p><input type="checkbox"/> Feasibility Study / DPR</p> <p><input type="checkbox"/> Purchase orders</p> | <p>It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA must be a Solar PV project or Solar Thermal project or Wind Power Project and</p> |

⁴ This indicates the documentation required for each CPA to confirm compliance with the applicability of the methodology. Hence, this assessment will be carried out at CPA level.

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|---|---|---|---|
| the definition of renewable biomass. | regional grid of India c) Project should be a Green field project | | shall supplies electricity only to a national or regional Grid of India and no wheeling or captive consumption project is allowed in this PoA. |
| <p>§2: Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2.</p> <p>Footnote 2: AMS-I.D “Grid connected renewable electricity generation”, AMS-I.F “Renewable electricity generation for captive use and mini-grid” and AMS-I.A “Electricity generation by the user”</p> | <p>All CPA will conform to AMS.I.D: (a) Supplying electricity to a national or a regional grid</p> | <p>Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement, <input type="checkbox"/> Grid Evacuation clearances. <input type="checkbox"/> Feasibility Study /DPR</p> | <p>It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA must comply with all requirements of AMS I.D and project which supply electricity to the grid is considered under the project. No wheeling and captive project is allowed under this PoA.</p> |
| <p>§3: This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).</p> <p>Footnote 3: A capacity addition is an increase in the installed power generation capacity of an existing power plant through: (i) The installation of a new power plant besides the existing power plant/units; or (ii) The installation of new power units, additional to the existing power</p> | <p>CPA under this PoA may involve: (a) Installation of a new Solar PV, Solar Thermal and Wind power plant at a site where there is no renewable energy power projects operating prior to the implementation of the project activity (Greenfield plant).</p> | <p>Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement, <input type="checkbox"/> Government clearances. <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Technical Proposal of the project</p> | <p>Potential/future CPAs of the PoA involve either Installation of a new Solar PV, Solar Thermal or Wind power plant at a site where there are no renewable energy power projects operating prior to the implementation of the project activity (Greenfield</p> |

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|--|--|---|--|
| <p>plant/units. The existing power plant/units continue to operate after the implementation of the project activity.</p> <p>Footnote 4: Retrofit (or rehabilitation or refurbishment). It involves an investment to repair or modify an existing power plant/unit, with the purpose to increase the efficiency, performance or power generation capacity of the plant, without adding new power plants or units, or to resume the operation of closed (mothballed) power plants. A retrofit restores the installed power generation capacity to or above its original level. Retrofits shall only include measures that involve capital investments and not regular maintenance or housekeeping measures.</p> <p>Footnote 5: Replacement. It involves investment in a new power plant or unit that replaces one or several existing unit(s) at the existing power plant. The installed capacity of the new plant or unit is equal to or higher than the plant or unit that was replaced.</p> | | | <p>plant). The same will be reviewed by the DOE during the inclusion of CPA.</p> |
| <p>§4: Hydro power projects with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <p>A. The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</p> <p>B. The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²;</p> <p>C. The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m².</p> <p>Footnote 6: A reservoir is a water body</p> | <p>This is not applicable since the CPA do not involve establishment of hydropower projects.</p> | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement,</p> <p><input type="checkbox"/> Government clearances.</p> <p><input type="checkbox"/> Feasibility Study /DPR</p> <p><input type="checkbox"/> Technical Proposal of the project</p> | <p>Not applicable, since CPA will not employ Hydro power project as confirmed in the PoA-DD /P02-2/.</p> |

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|---|---|---|---|
| <p>created in valleys to store water generally made by the construction of a dam.</p> <p>Footnote 7: A reservoir is to be considered as an “existing reservoir” if it has been in operation for at least three years before the implementation of the project activity.</p> | | | |
| <p>§5: If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p> <p>Footnote 8: A co-fired system uses both fossil and renewable fuels, for example the simultaneous combustion of both biomass residues and fossil fuels in a single boiler. Fossil fuel may be used during a period of time when the biomass is not available and due justifications are provided.</p> | <p>CPAs will confirm this condition and the installed capacity of the renewable component shall not exceed 15 MW as per eligibility criteria for SSC methodologies. There shall be no non-renewable component installed in the CPA.</p> | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Project plant layout diagram Agreement,</p> <p><input type="checkbox"/> Purchase order</p> <p><input type="checkbox"/> Feasibility Study / DPR</p> | <p>Not applicable, since CPA shall not involve non-renewable component as confirmed in the PoA-DD /P02-2/.</p> |
| <p>§6: Combined heat and power (co-generation) systems are not eligible under this category.</p> | <p>The project activities under the PoA are not a combined heat and power project.</p> | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement,</p> <p><input type="checkbox"/> Government clearances.</p> <p><input type="checkbox"/> Feasibility Study /DPR</p> <p><input type="checkbox"/> Technical Proposal of the project</p> | <p>Not applicable, since CPA shall not be combined heat and power project as confirmed in the PoA-DD /P02-2/.</p> |
| <p>§7: In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p> <p>Footnote 9: Physically distinct units are those that are capable of generating</p> | <p>No capacity addition project is considered under this PoA.</p> | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement,</p> <p><input type="checkbox"/> Government clearances.</p> <p><input type="checkbox"/> Feasibility Study /DPR</p> | <p>Not applicable, since CPA shall not involve capacity addition as confirmed in the PoA-DD /P02-2/.</p> |

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|--|--|--|---|
| electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility. For example, the addition of a steam turbine to an existing combustion turbine to create a combined cycle unit would not be considered “physically distinct”. | | <input type="checkbox"/> Technical Proposal of the project | |
| §8: In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW. | Not applicable, as the CPA will not involve retrofit or replacement. | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement, <input type="checkbox"/> Government clearances. <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Technical Proposal of the project | Not applicable, since CPA shall not involve retrofit or replacement as confirmed in the PoA-DD /P02-2/. |
| §25: In the specific case of biomass project activities the applicability of the methodology is limited to either project activities that use biomass residues only or biomass from dedicated plantations complying with the applicability conditions of AM0042. | Not applicable, as the CPA are not biomass project activities. | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement, <input type="checkbox"/> Government clearances. <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Technical Proposal of the project | Not applicable, since CPA shall not be biomass project activity as confirmed in the PoA DD /P02-2/. |
| §26: In the specific case of biomass project activities the determination of leakage shall be done following the general guidance for leakage in small-scale biomass project activities (attachment C of Appendix B of simplified modalities and procedures for small-scale clean development mechanism project activities; decision 4/CMP.1) or following the procedures included in the leakage section of AM0042. Footnote 16: Available on < http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html >. | Not applicable, as the CPA are not biomass project activities. | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement, <input type="checkbox"/> Government clearances. <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Technical Proposal of the project | Not applicable, since CPA shall not be biomass project activity as confirmed in the PoA-DD /P02-2/. |

| Applicability Conditions of AMS-I.D, Version 17/B02/ | CPA Status | Documentation provided ⁴ | Assessment by the Validation team |
|--|---|---|--|
| §27: In case the project activity involves the replacement of equipment, and the leakage from the use of the replaced equipment in another activity is neglected because the replaced equipment is scrapped, an independent monitoring of scrapping of replaced equipment needs to be implemented. The monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified. | As per eligibility criteria the CPA under the PoA will install new equipment, hence leakage from the use of the replaced equipment in another activity is not applicable. | Any one of the following document shall be provided: <input type="checkbox"/> Declaration from CPA implementer <input type="checkbox"/> Purchase order for equipment <input type="checkbox"/> Feasibility Study /DPR | As a part of eligibility check DOE at the time CPA inclusion validation shall check that energy generating equipment shall be brand new as confirmed by the CME in PoA-DD /P02/. |

Applicability condition of ACM 0002:

| Applicability Conditions of ACM 0002, Version 12.3.0/B02/ | CPA Status | Documentation provided ⁵ | Assessment by the Validation team |
|--|---|---|--|
| This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s). | A CPA will consist of a renewable energy generation unit that: a) Implement Solar PV or Solar Thermal or Wind power generation b) Electricity generated by the renewable energy unit will be supplied to national or regional grid of India c) Project should be a Green field project | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Clearances from government agencies <input type="checkbox"/> Feasibility Study / DPR <input type="checkbox"/> Purchase orders | It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA project activity is installation of new power plant at the site where no renewable energy power plant was operated prior to the implementation of the project and involve technology such as Solar PV, Solar Thermal or Wind power plant which supplied power |

⁵ This indicates the documentation required for each CPA to confirm compliance with the applicability of the methodology. Hence, this assessment will be carried out at CPA level.

| Applicability Conditions of ACM 0002, Version 12.3.0/B02/ | CPA Status | Documentation provided ⁵ | Assessment by the Validation team |
|---|--|---|---|
| | | | to the grid. Hence the project activity fulfills these criteria. |
| The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; | Not applicable, as the CPA doesn't involve capacity addition, retrofit or replacement of renewable energy unit (Solar PV, Solar thermal, Wind energy power plant). | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Clearances from government agencies <input type="checkbox"/> Feasibility Study / DPR <input type="checkbox"/> Purchase orders | Not applicable, since CPA shall not involve retrofit or replacement as confirmed in the PoA-DD /P02/. |
| In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity. | Not applicable, as the CPA will not involve capacity addition, retrofit or replacement. | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Clearances from government agencies <input type="checkbox"/> Feasibility Study / DPR <input type="checkbox"/> Purchase orders | Not applicable, since CPA shall not involve retrofit or replacement as confirmed in the PoA-DD /P02/. |
| In case of hydro power plants, one of the following conditions must apply: <ul style="list-style-type: none"> • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or • The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m² after the implementation of the project activity; or • The project activity results in new single or multiple | This is not applicable since the CPA do not involve establishment of hydropower projects. | Any one of the following document shall be provided: <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Clearances from government agencies <input type="checkbox"/> Feasibility Study / DPR <input type="checkbox"/> Purchase orders | This project is not hydro power project. Hence this criterion is not relevant. |

| Applicability Conditions of ACM 0002, Version 12.3.0/B02/ | CPA Status | Documentation provided ⁵ | Assessment by the Validation team |
|---|--|--|--|
| reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m ² after the implementation of the project activity. | | | |
| <p>In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m² all the following conditions must apply:</p> <ul style="list-style-type: none"> • The power density calculated for the entire project activity using equation 5 is greater than 4 W/m²; • All reservoirs and hydro power plants are located at the same river and were designed together to function as an integrated project that collectively constitutes the generation capacity of the combined power plant; • The water flow between the multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; • The total installed capacity of the power units, which are driven using water from the reservoirs with a power density lower than 4 W/m², is lower than 15 MW; • The total installed capacity of the power units, which are driven using water from reservoirs with a power density lower than 4 W/m², is less than 10% of the total installed capacity of the project activity from multiple reservoirs. | This is not applicable since the CPA do not involve establishment of hydropower projects. | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement</p> <p><input type="checkbox"/> Clearances from government agencies</p> <p><input type="checkbox"/> Feasibility Study / DPR</p> <p><input type="checkbox"/> Purchase orders</p> | This project does not involve hydro power project. Hence this criterion is not relevant. |
| <p>The methodology is not applicable to the following:</p> <ul style="list-style-type: none"> • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; | This is not applicable since the CPA do not involve switch from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Power Purchase Agreement</p> <p><input type="checkbox"/> Clearances from government</p> | <ul style="list-style-type: none"> ➤ The project activity does not involve fuel switch. ➤ The project is not biomass power plant ➤ The project is not hydro |

| Applicability Conditions of ACM 0002, Version 12.3.0/B02/ | CPA Status | Documentation provided ⁵ | Assessment by the Validation team |
|---|--|--|---|
| <ul style="list-style-type: none"> Biomass fired power plants; A hydro power plant that results in the creation of a new single reservoir or in the increase in an existing single reservoir where the power density of the reservoir is less than 4 W/m². | continued use of fossil fuels at the site. No biomass fired power plant involved in the project activity. No hydro power plant involved in the project activity. | agencies <input type="checkbox"/> Feasibility Study / DPR <input type="checkbox"/> Purchase orders | power project. Hence this criterion is not relevant. |

The assessment of the project's compliance with the applicability criteria of the methodology ACM 0002, version 12.3.0 and AMS-I.D, version 17 as documented in the PoA-DD Part I and Part II, which are evaluated in detail under the PoA validation protocol.

3.7.2 PoA boundary

The boundary of the potential/future CPAs of the PoA has been assessed by considering information gathered from the site visit, interviews, and from description of the gas and sources involved as contained in the PoA-DD /P02-2/. The proposed CPA of the PoA is planned to implement in the geographical area of India. Validation team confirms that the project boundary is based on the applied methodology /B02/ as it contains the spatial extent of the CPA including the physical and geographical site of the renewable generation source, including the Solar PV or Solar Thermal or wind power project as well as the sub-station connection to the relevant electricity grid (i.e. NEWNE/Southern Grid). The sources and gases within the boundary have been considered in a clear manner.

Validation team based on the above confirms that the delineated project as documented in the PoA-DD/P02-2/ is justified for the CPAs of the PoA and are fully in line with the requirements set by the applied methodology /B02/. Validation team based on above confirms the compliance of §191-192 of VVS version 02 /B01/.

3.7.3 Baseline Scenario

As per the applied methodology AMS I.D (version 17), is calculated as the product of electrical energy baseline $EG_{BL,y}$ (Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y) expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor in accordance with §10, 11, 12 of AMS-I.D version 17.

According to the applied ACM0002, Version 12.3.0, the validation team can confirm that the identified baseline scenario to the Greenfield grid connected Solar PV or Solar Thermal or Wind energy project, is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the regional/national grid.

In addition, as described in the PoA-DD, the baseline emission of the project is the electricity generated by the project multiplied by the emission coefficient which is reflected in the combined margin (CM), i.e. the weighted average of the operating margin (OM) emission factor and the build margin (BM) emission factor as per the "Tool to calculate the emission factor for an electricity system" version 02.2.1/B03/, EB63., which is in line with the applied methodology ACM0002, version 12.3.0. Accordingly the Emission Factor can be calculated in a transparent and conservative manner as follows:

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

OR

b) The weighted average emissions (in kg CO_{2e}/kWh) of the current generation mix. The data of the year in which project generation occurs must be used.

The validation team confirms that the proposed project activity meets the above requirement. Therefore, the baseline scenario as prescribed in the AMS.I.D (version 17) and ACM0002 version 12.3.0 is applicable to the proposed project activity. The validation took cognizance of § Section L (6) of VVS (version 02.0).

| | | |
|--|---|---|
| <i>The approved baseline methodology applicable to the project</i> - explicit criteria - implicit criteria (e.g. available scenarios, applicability of formulas for BE/PE/LE calculations) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>PDD includes all assumptions and data used by project participants</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>All the references and documents used are relevant for establishing the baseline scenario</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>All the references and documents used are correctly quoted and conservatively interpreted in the PDD</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>All relevant policies / regulations considered are listed in the PDD</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>Identified potential baseline scenarios reasonably represent what would/could occur in the absence of the proposed project activity</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>The baseline scenario selection is appropriate and determined according to the methodology</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |
| <i>The approved methodology used is applicable to the identified baseline scenario</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | As per clause 10, 11, 12 of the AMS-I.D. /Version 17 and Section II of ACM 0002, version 12.3.0, the simplified baseline is prescribed. |

The approved baseline methodology has been correctly applied to identify realistic and credible baseline scenarios, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed CDM project activity.

All the assumption and data used by the project participants are listed in the PoA-DD and/or supporting documents. All documentation relevant for establishing the baseline scenario are correctly quoted and

interpreted in the PDD. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable. Relevant national and/or Sectoral policies and circumstances are considered and listed in the PDD.

Nevertheless CL-04 and CL-07 are raised and closed successfully.

3.8 Additionality

3.8.1 Prior consideration of the CDM

As per § 194 of annex 04, EB 65 /B18-4/, prior consideration of CDM, do not apply to PoA, as at present it is expected that no component of the Programme will commence prior to the start date of validation of the PoA. Nevertheless CAR-05 is raised and closed successfully.

3.8.2 Additionality of PoA

As per the section B.5 of the PoA-DD /P02-2/, CPAs of the PoA shall be micro scale project or small scale project or large scale projects. Validation team referred PoA-DD which proposed to follow the guidelines to demonstrate additionality to prove that none of the CPAs under the PoA would occur in absence of CDM. The following are the additionality selection by the CME,

| Scale of the project | CPA Requirements | Documentation provided | Assessment by the Validation team |
|----------------------|--|--|--|
| Micro scale project | To follow “Guidelines for demonstrating additionality of micro scale project activities”/B04-1/ | Any one of the following document shall be provided: <input type="checkbox"/> Purchase order for equipment <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Power Purchase Agreement | It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA project activity is within the threshold limit of micro scale project as suggested in the “Guideline for demonstrating additionality of micro scale project activities”. Hence the additionality requirement is met for micro scale |
| Small Scale Project | To follow (a) Positive list of grid-connected renewable electricity generation technologies in the “Guidelines on the demonstration of additionality of small-scale project activities”/B04-2/; or (b) Investment barrier as per the “Guidelines on the demonstration of additionality of small-scale project activities”/ B04-2/; /; or (c) Barriers other than investment barrier as per the “Guidelines on the demonstration of additionality of small-scale project activities/ | Any one of the following document shall be provided: <input type="checkbox"/> Purchase order for equipment <input type="checkbox"/> Feasibility Study /DPR <input type="checkbox"/> Power Purchase Agreement <input type="checkbox"/> Investment Analysis Spread sheet and all supporting documents to justify the assessments at the time of decision making <input type="checkbox"/> Publicly available information's | It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA project activity is within the threshold limit of Small scale project as suggested in the “Guidelines on the demonstration of additionality of small-scale project activities” and “Guidelines for SSC methodologies”. The CPA will prove additionality by one of the following, 1) EB68-A27 which talks about positive list of renewable electricity generation technologies that are automatically defined as additional as mentioned in Guidelines on the demonstration of additionality of Small-Scale |

| Scale of the project | CPA Requirements | Documentation provided | Assessment by the Validation team |
|----------------------|--|---|---|
| | B04-2/; | | <p>Project Activities for which it is not required to satisfy the conditions indicated in “Guidelines for demonstrating additionality of micro scale project activities” and other barriers as per “Non-binding best practice examples to demonstrate additionality for SSC project activities”/B04-3/.</p> <p>2) Investment analysis as per “Guidelines on the assessment of investment analysis”</p> <p>3) Other Barriers based on “Guidelines on the demonstration of additionality of small-scale project activities” and “Guidelines for objective demonstration and assessment of barriers”</p> <p>Hence the additionality requirement is met for small scale project activity.</p> |
| Large scale project | Additional in accordance with the “Tool for the demonstration and assessment of additionality” Version 06.1.0/B18-8/ | <p>Any one of the following document shall be provided:</p> <p><input type="checkbox"/> Purchase order for equipment</p> <p><input type="checkbox"/> Feasibility Study /DPR</p> <p><input type="checkbox"/> Power Purchase Agreement</p> <p><input type="checkbox"/> Investment Analysis Spread sheet and all supporting documents to justify the assessments at the time of decision making</p> <p><input type="checkbox"/> Publicly available information's</p> | <p>It shall be checked during inclusion of the CPA by the DOE based on review of cited documents that CPA project activity follows the “Tool for demonstration and assessment of additionality” version 06.1.0 to demonstrate additionality.</p> <p>All data, rationales, assumptions, justifications and documentation provided by the project participants are reliable and credible to the demonstrated additionality for large scale project activity.</p> <p>Hence the additionality requirement is met for large scale project activity.</p> |

This demonstration is in compliance with § 195 of annex 04 of EB 65 /B01-1/.

3.8.3 Approach for demonstrating CPA additionality

The additionality is one of the eligibility criteria for the future CPAs of the PoA, in line with requirement of § 14, annex 3 of EB 65 /B06-03/. The CPAs that meet the eligibility criteria for inclusion in the PoA would therefore be deemed additional. As mentioned in section 3.8.2 above, those CPA which are

Rev No.: 01 (01/07/2012)

automatically additional should follow respective stipulations provide in Micro scale and SSC additionality. In case if the PP wants to prove additionality based on investment analysis the following method will be applied to prove additionality. The assessment on selection of parameter to prove investment analysis is mentioned below,

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|--|-------------------------------|---|---|
| 1. | Selection of Benchmark for Equity IRR | Section IV of EB 62, Annex 05 | <p>Any one of the following approach will be followed:</p> <p><input type="checkbox"/> Default value for the expected return on equity for India as per the “Guidelines on the assessment of investment analysis”</p> <p><input type="checkbox"/> Cost of equity determined using best financial practices (such as Capital Asset Pricing Model) using data sources which can be clearly validated while properly justifying all underlying factors in accordance with “Guidelines on the assessment of investment analysis”</p> <p><input type="checkbox"/> Government/official approved benchmark where such benchmarks are used for investment decisions</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of the identified benchmark applicable at the time of investment decision. The information provided to identify benchmark for equity IRR is in line with the Guidelines on the assessment of investment analysis. |
| 2. | Selection of Benchmark for Project IRR | Section IV of EB 62, Annex 05 | <p>The following document shall be provided:</p> <p><input type="checkbox"/> Local commercial lending rates applicable in the country (pre-tax rate used in case of pre-tax IRR)</p> <p><input type="checkbox"/> Weighted Average Costs of Capital (WACC) calculated as: $WACC = \{D/(D+E)\} * \{1 - T/100\} * \text{Cost of Debt} + \{E/(D+E)\} * \text{Cost of Equity (tax-rate not applied in case of pre-tax IRR)}$ </p> <p><input type="checkbox"/> Government/official approved benchmark where such benchmarks are used for investment decisions (According to EB 40 meeting report, §graph 40, a benchmark based on tariff orders</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of the identified benchmark applicable at the time of investment decision. The information provided to identify benchmark for project IRR is in line with the Guidelines on the assessment of investment analysis. |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|---|-----------------------------|---|---|
| | | | published in accordance with the Central Electricity Regulation Commission is not a suitable benchmark) | |
| 3. | Technical lifetime | EB 50, Annex 15, Section II | <p>The following document shall be provided:</p> <p><input type="checkbox"/> Based on “Tool to determine the remaining lifetime of equipment”:</p> <p><input type="checkbox"/> Manufacturer’s information on the technical lifetime of equipment; or</p> <p><input type="checkbox"/> Expert evaluation; or</p> <p><input type="checkbox"/> Default values</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of the identified life time in line with “Tool to determine the remaining lifetime of equipment”. Hence the selection of technical life time is justified in the PoA-DD. |
| 4. | Annual degradation | Assumption | <p>The following document shall be provided:</p> <p><input type="checkbox"/> Pre-feasibility assessment</p> <p><input type="checkbox"/> Detailed Project Report</p> <p><input type="checkbox"/> Manufacturer specifications</p> <p><input type="checkbox"/> Tariff order of the state electricity regulatory commission</p> <p><input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations</p> <p><input type="checkbox"/> Technical expert opinion</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is applicable at the time of decision making. Hence the selection of annual degradation is justified in the PoA-DD. |
| 5. | Electricity tariff & Escalation in electricity tariff | Assumption | <p>The following document will be determined on a case-by-case basis in accordance with either of the following (as applicable on the date of investment decision):</p> <p><input type="checkbox"/> Power Purchase Agreement</p> <p><input type="checkbox"/> Tariff order of the state electricity regulatory commission</p> <p><input type="checkbox"/> State specific power policy applicable for wind / solar technologies</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is applicable at the time of decision making. Hence the selection of electricity tariff and escalations are justified in the PoA-DD. |
| 6. | Exchange rate | Assumption | The following document shall be provided: | At the time of inclusion request of CPA, CME |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|----|---|------------|---|---|
| | | | <input type="checkbox"/> If some costs/revenues are provided in foreign currency the exchange rate in public domain as per date of investment decision shall be used to convert to local currency | shall follow any the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is publicly available at the time of decision making. Hence the selection of exchange rate is justified in the PoA-DD. |
| 7. | Cost of Project | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment report <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Quotations from suppliers | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is valid at the time of decision making. Hence the selection of project cost is justified in the PoA-DD. |
| 8. | Total investment | Assumption | The following document shall be provided: <input type="checkbox"/> If the construction is expected to last several years, a yearly breakdown of investments can be provided | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is valid at the time of decision making. Hence the selection of total investment is justified in the PoA-DD. |
| 9. | Operation & Maintenance cost (including escalation) | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is applicable at the time of decision making. Hence the selection of Operation and |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|---|------------|---|--|
| | | | <input type="checkbox"/> Technical expert opinion | Maintenance including escalations are justified in the PoA-DD. |
| 10. | Other Revenues | Assumption | The following document shall be provided: <input type="checkbox"/> To be included in the calculation only if applicable to CPA and not covered under tariff. This could be Generation Based Incentive from Indian Renewable Energy Development Agency Ltd. (IREDA) or any other revenue as per state/national regulatory policies applicable on the date of investment decision. | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity. Hence the selection of Other revenue is justified in the PoA-DD. |
| 11. | Insurance | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment report <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Quotations from suppliers <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations <input type="checkbox"/> Technical expert opinion | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity which is applicable at the time of decision making. Hence the selection of Insurance cost is justified in the PoA-DD. |
| 12. | Tax Rate | Assumption | The following document shall be provided: <input type="checkbox"/> As per Income Tax Act, 1961 and/or any other future legislation. Tax shield (if applicable) shall also be considered in accordance with the act/legislation. | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of tax rate which is applicable at the time of decision making. Hence the selection of tax rate is justified in the PoA-DD. |
| 13. | Depreciation Rate (Based on WDV method for tax calculation) | Assumption | The following document shall be provided: <input type="checkbox"/> As per Income Tax Act, 1961 and/or any other | At the time of inclusion request of CPA, CME shall follow any one of the approach which |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|---|------------|---|--|
| | | | future legislation. | should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of depreciation rate which is applicable at the time of decision making. Hence the selection of Depreciation rate is justified in the PoA-DD. |
| 14. | Depreciation Rate (Based on SLM method for P&L statement) | Assumption | The following document shall be provided: <input type="checkbox"/> As per the Companies Act, 1956 Schedule XIV and/or any other future legislation | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of depreciation rate which is applicable at the time of decision making. Hence the selection of Depreciation rate is justified in the PoA-DD. |
| 15. | Debt: Equity ratio | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Typical debt : equity finance structure observed in the power sector of India <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of percentage of debt sourcing which is applicable at the time of decision making. Hence the selection of percentage of debt sourcing is justified in the PoA-DD. |
| 16. | Interest on term loan, Loan Moratorium, Loan Repayment Period | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Commercial Lending Rate prevailing at the time of investment decision <input type="checkbox"/> Tariff order of the state electricity regulatory commission | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of interest on term loan, loan moratorium, loan |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|------------------------------------|------------|---|--|
| | | | <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations | repayment which is applicable at the time of decision making. Hence the selection of loan moratorium, interest on term loan, repayment period are justified in the PoA-DD. |
| 17. | Working Capital Components | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of working capital which is applicable at the time of decision making. Hence the selection of Working capital component is justified in the PoA-DD. |
| 18. | Working Capital Interest rate | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Commercial Lending Rate prevailing at the time of investment decision <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of working capital interest rate which is applicable at the time of decision making. Hence the selection of working capital interest rate is justified in the PoA-DD. |
| 19. | Salvage Value | Assumption | The following document shall be provided: <input type="checkbox"/> Pre-feasibility assessment <input type="checkbox"/> Detailed Project Report <input type="checkbox"/> Tariff order of the state electricity regulatory commission <input type="checkbox"/> CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations <input type="checkbox"/> Technical expert | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of salvage value which is applicable at the time of decision making. Hence the selection of Salvage Value is justified in the |

| Nr | Assumptions in investment analysis | Compliance | Information requirement as per the PoA-DD/P02-2/ | Assessment by the Validation team |
|-----|------------------------------------|---|---|---|
| | | | opinion | PoA-DD. |
| 20. | Sensitivity Analysis | Assumption | <p>The following parameters will be considered for sensitivity analysis,</p> <ol style="list-style-type: none"> 1) Energy generation 2) Project cost 3) Tariff 4) O&M cost <p>In cases where a scenario will result in the project activity passing the benchmark, an assessment of the probability of the occurrence of this scenario shall be provided.</p> | At the time of inclusion request of CPA, CME shall follow any one of the approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of sensitivity analysis and conclude the additionality. |
| 21 | Project IRR/Equity IRR | Assumptions and calculations in line with local accounting principles | <p>The following documents shall be submitted,</p> <p><input type="checkbox"/> Financial Spread sheet</p> | At the time of inclusion request of CPA, CME shall assume the input values as mentioned above which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity considering the above mentioned assumptions for the entire life time of the project. Without considering the CDM the CME/CPA implementer has to prove the project IR/Equity IRR shall be below the selected bench mark and prove that the project is financially unviable. |

Nevertheless CAR-07, CL-05 and CL-06 are raised and closed successfully.

In case, barrier analysis is used for large scale CPAs, then the assessment of the same will be based on “Tool for the demonstration and assessment of additionality”.

3.8.4 Common Practice (Only for Large Scale CPA)

As per para 47 of the “Tool for the demonstration and assessment of additionality”, the common practice analysis has presented in the PoA-DD, since the project is a renewable energy project. At the time of inclusion request of CPA, CME shall follow the following approach which should be documented in the CPA-DD. The DOE who will be performing validation will check the consistency and integrity of common practice as per the below steps which in in line with the tools,

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

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

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

The parameters to find N_{all} and N_{diff} shall be referred from any of the available information as mentioned below,

- Related government ministries/departments
- Solar / Wind / Renewable Energy Industry associations
- Solar / Wind / Renewable Energy International associations
- Sectoral publications on Solar / Wind / Renewable energy installations
- Market penetration of different renewable energy technologies
- UNFCCC website for registered CDM project

Step 4: Calculate factor $F=1-N_{diff}/N_{all}$ representing the share of plants using technology similar to the technology used in the proposed project activity in all plants that deliver the same output or capacity as the proposed project activity

$$F = 1 - (N_{diff}/N_{all})$$

Step 5: The proposed project activity is a “common practice” within a sector in the applicable geographical area if the factor F is greater than 0.2 and $N_{all}-N_{diff}$ is greater than 3.

Hence the approach mentioned in the PoA-DD to prove common practice for large scale project is verified and found to be valid and correct. Nevertheless CAR-09 is raised and closed successfully.

3.9 Emission Reduction from a typical CPA of the PoA

The emission reduction calculation is conducted as per applied methodology AMS-I.D, version 17 and ACM 0002, version 12.3.0 and the methodological tool “Tool to calculate the emission factor for an electricity system” version 2.2.1 and correct equations have been used accordingly.

Baseline Emissions for AMS-I.D:

BE_y is calculated by multiplying the net electricity supplied to the regional/national grid ($EG_{BL,y}$) with combined margin emission factor ($EF_{CO_2,grid,y}$):

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

Where

$EG_{BL,y}$ is the net electricity export to grid in a given year (MWh)

$EF_{CO_2,grid,y}$ is the emission factor for a given year (tons of CO_2 /MWh).

Baseline Emissions for ACM 0002:

BE_y is calculated by multiplying the net electricity supplied to the regional/national grid ($EG_{PJ,y}$) with combined margin emission factor ($EF_{grid,CM,y}$):

$$BE_y = EG_{PJ,y} * EF_{grid,CM,y}$$

Where:

BE_y = Baseline emissions in year y (tCO_2)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system”

Since the project activity is the installation of a new grid-connected renewable power plant/unit at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield power plant), therefore:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh)

Calculation of Grid Emission factor ($EF_{CO2,grid,y}$ or $EF_{grid,CM,y}$)

In addition, as described in the PoA-DD, the baseline emission of the project is the electricity generated by the project multiplied by the emission coefficient which is reflected in the combined margin (CM), i.e. the weighted average of the operating margin (OM) emission factor and the build margin (BM) emission factor as per the “Tool to calculate the emission factor for an electricity system” version 02.2.1, EB63., which is in line with the applied methodology ACM0002, version 12.3.0. Accordingly the Emission Factor can be calculated in a transparent and conservative manner as follows:

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

OR

b) The weighted average emissions (in $kg\ CO_{2e}/kWh$) of the current generation mix. The data of the year in which project generation occurs must be used.

PP has opted option “a)” and adopts the ex-ante calculation of emission factor of the grid. The combined margin emission factor has been calculated to be $0.8971\ tCO_{2e} / MWh$ for Southern grid of India and $0.9528\ tCO_{2e} / MWh$ for NEWNE grid of India. This has been calculated using the source from the Central Electricity Authority CO_2 Baseline Database /B19/. Central electricity Authority (CEA) (under Ministry of Power, Government of India) have worked out baseline emission factor for various grids in India and made them publicly available. The DNA of the host party (India) has also given a reference link of the CEA on their official website. The data from CO_2 Baseline Database for the Indian Power Sector User Guide - Version 7.0 /B19/ is the most recent data at the time of submission of PoA-DD for validation (Cp p5 of tool to calculate emission factor of an electricity system, version 02.2.1 /B03/). Validation team has checked the calculation of the combined margin grid emission factor and confirmed that the applied value of the emission factor follows the tool /B03/. And the values of OM and BM incorporated in the PoA-DD /P02-2/ is taken from publically available database i.e. by CEA (Govt of India) /B19/.

Nevertheless, following steps (step numbers correspond to tool to calculate emission factor of an electricity system, version 02.2.1) demonstrate the calculation of combine margin emission factor in accordance with “tool to calculate emission factor of an electricity system”, version 02.2.1.

Step 1 - In line with the requirements specified in the tool /B03/, the PP has used a regional grid definition as applicable for large countries like India having layered electricity dispatch systems. The Indian power system is divided in two grids, the Northern, Eastern, Western and North- Eastern (NEWNE) Grid and Southern Grid. The project activity will be connected to Southern Grid or NEWNE grid or both.

Step 2 - of the tool gives an option to include off-grid power plants in the project electricity system. CEA in its database for the Indian Power Sector User Guide - Version 7.0 /B19/ has considered only grid power plants for the analysis.

Step 3 - Simple OM method, out of the four methods provided in the tool /B03/ for calculating the operating margin ($EF_{grid,OM,y}$) is selected. The tool /B03/ specifies that the simple OM method can only be used if the low-cost/must-run resources constitute less than 50% of total grid generation in 1) average of the five most recent years, or 2) based on long-term averages for hydroelectricity production. The Simple OM method selected is justified and appropriate as the average proportion of low-cost/must run resources is less than 50%. The ex-ante option for determining the simple OM is opted by the CME/PP.

Step 4 - The CME has considered the national published data (CEA database, version 07 /B19/) for simple OM (This is in conformation with the tools. The simple OM emission factor calculated by the CEA is the generation weighted average CO_2 emissions per unit net electricity generation (tCO_2/MWh) of all generating power plants serving the system, not including low-cost/must power plants (Cp page 6, User Guide – CO_2 Baseline Database, ver-7 for the Indian power sector /B19/).

The value of simple operating margin for each year and the data for the calculation of EF grid, simple OM, y is published by the CEA /B19/ and is publically available. However, validation team has cross checked the published value of simple OM from the data available in CEA, version 7 and found that CME has rightly calculated the generation weighted average value and this is in line with the tool and arrived at the following summary:

Southern grid:

| Year | OM emission factor (tCO_2/MWh) | Net Generation including imports(GWh) |
|---------|------------------------------------|---------------------------------------|
| 2010-11 | 0.9419 | 145,076 |
| 2009-10 | 0.9415 | 135,773 |
| 2008-09 | 0.9729 | 127,797 |

$EF_{SoutherngridOM,y}=0.9515 tCO_2/MWh$

NEWNE grid:

| Year | OM emission factor (tCO_2/MWh) | Net Generation including imports(GWh) |
|---------|------------------------------------|---------------------------------------|
| 2010-11 | 0.9707 | 476,987 |
| 2009-10 | 0.9777 | 462,327 |
| 2008-09 | 1.0066 | 421,803 |

$EF_{NEWNEgridOM,y}=0.9842 tCO_2/MWh$

Hence validation team confirms that the CME/PP has rightly followed the CEA database version 07 and the EF_{gridOM} for the southern grid is based on three year generation weighted average is in conformity with the tool to calculate emission factor, version 02.2.1 /B03/.

Step 5 - Option (b) the set of power capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that have been built most recently has been considered by CEA and the same has been selected in the PoA-DD.

Validation team checked independently and confirms that the selection of the options is correct. This conclusion has been made based on the analyzing both the options and it was found that the set of power as per option (b) comprises of larger annual generation and hence confirm the requirement of the tool /B03/. In validating this step, validation team further confirms that:

- (i) The identified power capacity additions comprise 20% of the system generation for the year under consideration.
- (ii) None of the considered power capacity additions considered under (i) above have been built more than ten years earlier.

PP has fixed the Build Margin emission factor as ex-ante for the whole crediting period.

Step 6 - The PP has considered the national published data (CEA database, version 07) for BM.

The CEA database /B19/ provides a BM value as **0.7339 tCO_{2e}/MWh** for the Southern grid and **0.8588 tCO_{2e}/MWh** for NEWNE grid. As part of validation of Step 6 of the tool /B03/, Validation team has checked the BM for the year 2010-11 and found the same correct and in line with the tool.

Step 7 of the tool /B03/ requires calculation of the combined margin emission factor as per the following equation:

$$EF_{\text{grid,CM,y}} = EF_{\text{grid,OM,y}} \times W_{\text{OM}} + EF_{\text{grid,BM,y}} \times W_{\text{BM}}$$

According to the tool /B03/ on selecting alternative weights, the default weights applicable for Solar PV, Wind and Solar Thermal projects are $W_{\text{OM}} = 0.75$ and $W_{\text{BM}} = 0.25$ for the first and subsequent crediting period have been applied. The combined margin emission factor has been calculated as

$$EF_{\text{southerngrid,CM,y}} = EF_{\text{CO2southern,grid,y}} = \mathbf{0.8971 \text{ tCO}_2\text{e/MWh.}}$$

$$EF_{\text{NEWNEgrid,CM,y}} = EF_{\text{CO2NEWNE,grid,y}} = \mathbf{0.9528 \text{ tCO}_2\text{e/MWh.}}$$

(The official published data for simple OM and BM is considered for calculation of CM). The CM for the crediting period is fixed ex-ante. Hence the validation team confirms that the PP has correctly calculated the combined margin grid emission factor and is in line with the tool to calculate emission factor, version 02.2.1 /B03/.

Project emissions:

As per § 20 of AMS-I.D. version 17 for most renewable energy project activities project emission is zero. Operation of Solar and Wind power generation plant does not involve in emission of any GHG gas. However in case of large scale project the project emissions are calculated as follows if appropriate for the technology employed in the project activity. The project emission are calculated as follows,

$$PE_y = PE_{\text{FF,y}} + PE_{\text{GP,y}} + PE_{\text{HP,y}}$$

PE_y = Project emissions in year y (tCO_{2e})

$PE_{\text{FF,y}}$ = Project emissions from fossil fuel consumption in year y (tCO_{2e}) (Applicable in case of fossil fuel usage at the project site)

$PE_{\text{GP,y}}$ = Project emissions from the operation of geothermal power plants due to the release of non-condensable gases in year y (tCO_{2e}) (Not applicable as the PoA proposed to install only Solar PV, Solar Thermal and Wind Power Plant)

$PE_{\text{HP,y}}$ = Project emissions from reservoirs of hydro power plants in year y (tCO_{2e}). (Not applicable as the PoA proposed to install only Solar PV, Solar Thermal and Wind Power Plant).

Hence the project emission from the project activity is zero.

Leakage:

As per the applicable approved methodology AMS-I.D and ACM 0002, leakage is to be considered if the energy generating equipment is transferred from another activity. The project activity is a green field solar PV, Solar Thermal and Wind power generation facility and the energy generating equipment used in the project activity has not been transferred from any other activity. Hence, leakage is not considered as zero.

Emission reduction: /P05-2/

The emission reductions (ER_y) of the project activity are the difference between the baseline emissions (BE_y), project emissions (PE_y) and the leakage emissions (Ly) as follows:

$$ER_y = BE_y - PE_y - LE_y$$

It is confirmed by the DOE by cross-checking the sample ER calculation sheet against all referenced data, calculation, formula, ex-ante emission factor from CEA database and the requirements of applied methodology and methodological tools that:

- All data sources and assumptions used are listed and referenced in the PoA-DD are appropriate. Calculations are correct, applicable to the proposed CPA and will result in a conservative estimation of the emission reductions;
- All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PoA-DD;
- All values used in the PoA-DD are considered reasonable in the context of the proposed CDM PoA project activity;
- The baseline methodology has been applied correctly to calculate project emissions, baseline emissions and leakage and emission reductions;

In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology AMS-I.D (version 17), ACM 0002, version 12.3.0 and its tool “Tools to calculate emission factor” version 02.2.1.

Validation team based on the review of PoA-DD /P02/, confirms that the formulae are correctly presented for the determination of emission reductions at CPA level. The parameters and equations presented in the PoA-DD, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has also been made to ensure consistency between all the formulae presented in the PoA-DD /P02/ and calculation files (for the real case CPA-DD), methodology ACM 0002 version 12.3.0 and AMS.I. D, Version 17. Nevertheless CAR-08, CL-08, CL-09 are raised and closed successfully.

3.10 Monitoring Plan of a typical CPA

The monitoring plan presented in the PoA-DD /P02-2/ complies with the requirements of the applicable methodology. The validation team has checked all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found, this is in line with §198 of VVS version 02.

The procedures have been reviewed by the validation team through document review and interviews with the relevant personnel/I-03/, /I-04/. The information provided has allowed the validation team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the PoA managing entity and the CPA implementer.

The management system document of the CME provide sufficient information which forms the confirmation by the validation team on the issues related but not limited to the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the Programme. Therefore, the PoA managing entity and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

3.10.1 Parameters determined ex-ante

The project adopts the ex-ante calculation of Operating Margin emission factor ($EF_{grid,OM,y}$), Build margin emission factor ($EF_{grid,BM,y}$) and Combined margin emission factor ($EF_{grid,CM,y}$) of the grid. This calculation

process, including the applied parameters and equations, were assessed by the validation team in accordance with the “Tool to calculate the emission factor for an electricity system”, Version 02.2.1 by using the CEA baseline database, version 07 (which was available at the time of webhosting). Please refer to Section 3.4.4 for the detailed discussion. The emission factor is calculated based on the CEA baseline database. The validation team confirms that all relevant parameters have been sufficiently considered and the values of the parameters are real, measureable and conservative. Please refer to the assessment of the OM, BM and combined margin emission factor in section 3.9 of the report.

3.10.2 Parameters determined ex-post

According to the approved methodology AMS I.D “Grid connected renewable electricity generation” version 17, the following parameters will be monitored:

| Sl. No. | Parameters | Description | Measured/Calculated |
|---------|-------------------------|---|---|
| 1 | $EG_{BL,y}$ | Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in case if the values are directly monitored. | <p>(a) In case of independent metering: Calculated from the electricity exported to grid and electricity imported from grid which are measured through a two way energy meter i.e., $EG_{BL,y} = EG_{\text{export}} - EG_{\text{import}}$ or</p> <p>(b) In case the apportioning mechanism is followed: Based on the following formula the $EG_{\text{facility},y}$ will be calculated as:</p> $EG_{BL,y} = \frac{EG_{\text{project},y}}{EG_{\text{project},y} + EG_{\text{other},y}} \times EG_{\text{all},y}$ |
| 2 | $EG_{\text{other},y}$ | Quantity of net electricity generation supplied by other units in the region measured at the plant unit end in year y | Measured as difference between Export and Import measured at the plant unit end |
| 3 | $EG_{\text{all},y}$ | Quantity of net electricity generation supplied by all the power units in the region (including the project activity) to the grid in year y | Measured as difference between Export and Import measured at the grid sub-station |
| 4 | $EG_{\text{project},y}$ | Quantity of net electricity generation supplied by the project activity measured at the plant unit end in year y | Measured as difference between Export and Import measured at the plant unit end. |

In summary, the validation team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of AMS-I.D (version 17). During the on-site assessment, the validation team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible

within the project design. The emission reductions resulting from the future CPA project activity can be reported ex post and verified.

According to the methodology ACM0002, version 12.3.0, the only parameter required for the grid connected power project is mentioned in the below table:

| Sl. No. | Parameters | Description | Measured/Calculated |
|---------|-------------------------------|---|--|
| 1 | $EG_{PJ,y} = EG_{facility,y}$ | Quantity of net electricity generation supplied by the project plant/unit to the grid in year y | <p>(a) In case of independent metering: Calculated from the electricity exported to grid and electricity imported from grid which are measured through a two way energy meter i.e., $EG_{facility,y} = EG_{export} - EG_{import}$ or (b) In case the apportioning mechanism is followed: Based on the following formula the $EG_{facility,y}$ will be calculated as:</p> $EG_{facility,y} = \frac{EG_{project,y}}{EG_{project,y} + EG_{other,y}} \times EG_{all,y}$ |
| 2 | $EG_{project,y}$ | Quantity of net electricity generation supplied by the project activity measured at the plant unit end in year y | Measured as difference between Export and Import measured at the plant unit end |
| 3 | $EG_{other,y}$ | Quantity of net electricity generation supplied by other units in the region measured at the plant unit end in year y | Measured as difference between Export and Import measured at the plant unit end |
| 4 | $EG_{all,y}$ | Quantity of net electricity generation supplied by all the power units in the region (including the project activity) to the grid in year y | Measured as difference between Export and Import measured at the grid sub-station |

The measurement and calculation method $EG_{BL,y}$ or $EG_{facility,y}$ given in the PoA-DD is verified and found to be valid as per the local expertise. The net electricity is not only monitored for the CPA purpose but it will be the basis for the electricity billing to the state utility. The state utility and PP jointly monitor the electricity readings and calculate the net electricity supplied to grid every month. So, the joint meter reading given by state utility every month will be used for the source of $EG_{facility,y}$ (Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh) which can be cross verified with the invoices raised by the CPA implementer to the state electricity utility.

The DOE has applied two-step process to assessing compliance with the requirements of monitoring plan, as follows:

i) Compliance of the monitoring plan with the approved methodology:

- Identified the list of parameters required by the selected approved methodology by means of document review, interview with WREL team;
- Confirmed that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the applied methodology ACM 0002 and AMS I.D.;

ii) Implementation of the plan:

- The monitoring arrangements described in the monitoring plan are feasible within the project design;
- The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the CPA project activity can be reported ex-post and verified.

The assessment has been conducted by the DOE by means of reviewing of the documented procedures, interviewing with relevant personnel and project plans of the PoA-CPA project activity.

In summary, the validation team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of AMS-I.D, version 17 and ACM0002, version 12.3.0. During the on-site assessment, the validation team interviewed the CME/PP and confirmed that the monitoring arrangements described in the monitoring plan are feasible within the project design. The emission reductions resulting from the future CPA project activity can be reported ex post and verified.

3.10.3 Monitoring and Reporting System and Quality Assurance

The CME has a well-defined project management structure for monitoring of the CPA which can be verified from the PoA-DD. The monitoring plan describes the Organization chart, Monitoring plan objective and Organization, Monitoring and archiving data, QA and QC procedures, data storage etc.

Organization chart and Management Structure:

The following are the roles and responsibilities of the monitoring personnel's involved in the CPA.

| Designation | Responsibilities |
|------------------------|---|
| Project In charge/Head | <ul style="list-style-type: none"> ➤ Review of monthly/yearly report on statistics for each project site. ➤ Evaluation of GHG CPA performance. ➤ Identification of continual improvement process |
| Project Manager | <ul style="list-style-type: none"> ➤ Implementation of corrective action for the identified discrepancies ➤ Review of report submitted by the supervisors/engineers w.r.t the electricity generated by the project ➤ Check on calibration of monitoring meters |
| Supervisor /Engineers | <ul style="list-style-type: none"> ➤ Monitoring of the electricity continuously and monthly consolidation as per the guidance mentioned in the CPA ➤ Preparation of monthly and annual generation statistics ➤ Reporting discrepancies in monitored parameters ➤ Ensuring calibration of monitoring meters. |

Quality Assurance and Quality Control:

Proper QA/QC has been implemented for monitoring parameters, part of the month calculation, calibration, emergency preparedness, discrepancies etc. This was confirmed by interviewing WREL team during site visit which is in line with the explanations provided in the PoA-DD.

Monitoring, Collection and Archiving:

According to document review in the PoA-DD and on-site interviews with the representatives of the CME/PP /I-03/, the validation team confirms the specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures used for various parameters and variables are explained in the PoA-DD /P02-2/, along with detailed quality assurance and quality control procedures. The accuracy class and the method and frequency of calibration of the electricity meters confirm to the national standards. All the monitored data will be archived until 2 years after the crediting period to facilitate cross-checking during the crediting period.

3. 11 Environmental Impacts

As per the Schedule 1 of the EIA notification 2006, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986, the proposed Wind, Solar PV and Solar Thermal power project activity doesn't fall under the list of activities requiring EIA⁶. There is an update in the EIA schedule dated 2009-12-01⁷ which states that any project developer in India needs to file an application to the Ministry of Environment and Forests (including a public hearing and an EIA) in case the proposed industry or project is listed in a predefined list. Ministry of Environment & forests vide their Office Memorandum No. J-11013/41/2006 –IA II (I) dated 2011-05-13 has reaffirmed this and exempted the Solar PV power plants from EIA and environmental clearance requirement. According to this directive thirty-eight categories of activity with a certain investment criteria are required to undertake an Environment Impact Assessment (EIA). The proposed PoA project activity being a Wind power or Solar PV or Solar Thermal project doesn't fall under these categories of activity and thus doesn't require any EIA. This grid connected Wind or Solar PV or Solar Thermal power plant has to obtain all local and Sectoral statutory clearances as specified under Indian Electricity Act 2003. However it is mentioned in the PoA-DD that in case if the host country demand to produce EIA before the implementation, the PP is agreed to do the same and it will be produced to the validating DOE. The CME/CPA implementer will conduct the EIA at individual CPA level this is in line with § 199 and § 200 of VVS version 02.

3. 12 Local Stakeholder Consultation

Depending on the type and scale of the project, the CME has planned to conduct the stakeholder consultation process with the involvement of all the stakeholders affected by the project activity at each CPA level of the PoA. LSC is included as one of the selection criterion for the inclusion of CPA under the proposed PoA. The stakeholder identified in the PoA-DD for the future CPA inclusion are listed below,

- Representatives of indigenous communities and vulnerable groups
- Local inhabitants (including farmers, villagers, local contractors etc.) who have sold their land for the project activity
- Technology providers/suppliers
- Government agencies which provide approval for the CPA
- Participants from local NGOs (if applicable)

⁶ <http://www.envfor.nic.in/divisions/iass/notif/eia.htm>

⁷ <http://moef.nic.in/downloads/rules-and-regulations/3067.pdf>

The procedure mentioned to invite stakeholders, prior intimation about the LSC through invitation letter, newspaper, advertisement etc, fixing up the time and venue of the meeting, minutes of the meeting, comments received by the stakeholder interactions, attendance register etc are mentioned in the PoA-DD. The implementation of the same has been confirmed from the CME of the proposed PoA.

CME has been stated in the PoA-DD /P02-2/, that the LSC will be carried out at individual CPA of the PoA, this is in line with § 202 of VVS version 02. This is one of the eligibility criteria; hence this is deemed as acceptable to the validation team and confirms the requirement of the PoA.

3.13 Comments by Parties, Stakeholders and NGOs

The PoA-DD /P01/ dated 2012-05-12 and real-case CPA-DD dated 2012-04-24 were made publicly available on UNFCCC's website(<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/4BLM59JBXPPCQ4EWTLKHGPYMMGJW5L/view.html>) and parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 2012-05-12 to 2012-06-10, where no comment was received.

Appendix A

Validation Protocol for CDM Programme of Activities
Based on CDM Validation and Verification Standard,
Of

PoA Titled “Welspun Renewable Energy Program”

Report No. 01 997 9105069997

Table 1: CDM-POA-DD Requirements Checklist ((based on § 37 of the CDM Modalities and Procedures and on VVS version 02, Project Standard and Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, annex 03, EB 65)

| Checklist | Comment | Ref. | Draft Conclusion | Final Conclusion |
|--|--|------------------|-------------------|------------------|
| PART I. Programme of activities (PoA) | | | | |
| SECTION A. General description of PoA | | | | |
| A.1. Title of the PoA | | | | |
| A.1.1.Are title, version number and the date of completion of PoA DD given in section A.1 of the PoA-DD? | National CDM Authority, under the Ministry of Environment and Forests, Government of India, is the Designated National Authority in India. Letter of approval from the Designated National Authority, is to be submitted for verification. Based on the review of the version 01 of the PoA-DD, the proposed project is a unilateral project, with India as host party. Section A.1 of the PoA-DD mention about the version number and date of completion of the PoA-DD. However CAR-01 is raised. | /P01/ | CAR-01 | OK |
| A.2. Description of the PoA | | | | |
| A.2.1. Has PoA DD in section A.2 contains the description of the policy/measure or stated goal that the PoA seeks to promote in a transparent manner with sufficient reference of the policy/measure/stated goal if any? | Yes the description of the state goal of the PoA has been provided in the section A.2 of the PoA-DD. | /P01/ /B06-1/ | OK | OK |
| A.2.2. Has PoA DD in section A.2 contains a sufficient description of Framework for the implementation of the proposed PoA? | As per EB67, Annex 28, the description on framework for the implementation of the proposed PoA is missing. | /P01/ /B06-1/ | CAR-02 | OK |
| A.2.3.Has a confirmation was given that the proposed PoA is a voluntary action by the coordinating/managing entity? | Yes, the CME has provided confirmation that proposed PoA is a voluntary measure by the CME. | /P01/ | OK | OK |

| | | | | |
|---|--|------------------|---------------------------------------|----|
| A.2.4. Has PoA DD in section A.2 contains a brief description of how the proposed PoA contributes to sustainable development | As per EB67, Annex 28, information about sustainable development w.r.t the proposed PoA is missing. | /P01/ | CAR-02 | OK |
| A.2.5. Does the project qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II? | The proposed PoA involves implementation of Micro scale, Small scale and Large scale project. | /P01/ /B05-1/ | OK | OK |
| A.2.6. Has the latest version of the CDM-POA-DD form been applied? | Yes, latest version of PoA-DD template has been used. | /P01/ /B06-9/ | OK | OK |
| A.2.7. Has the CDM-POA-DD been duly filled in accordance with the latest guidance(s) and procedures and all information are consistently described? | Yes, the PoA DD has been complete in accordance with the latest available guidelines. However few inconsistencies have been identified in the PoA-DD. CAR-02 and CL-01 are raised. | /P01/ /B06-1/ | CAR-02 CL-01 | OK |
| A.3. CME and Participants of PoA and | | | | |
| A.3.1 Has CME/s and all project participant in listed in the section A.3 of the PoA DD? | Yes the CME and PP of the PoA are listed in section A.3 of the PoA-DD. | /P01/ /B06-1/ | OK | OK |
| Note: The CME of the proposed PoA, as the entity which communicates with the Board; Project participants to the PoA (project participants may or may not be involved in one of the component project activities (CPAs) related to the PoA). | | | | |
| A.4 Party(ies) | | | | |
| A.4.1.1 Have all host countries been correctly listed? | Yes, PoA-DD refers to the name of host party. However the LoA from India is pending. | /P01/ | CAR-01 | OK |
| A.4.1.2 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? | No, the party is not directly involved as a project participant. | /P01/ | OK | OK |
| A.4.1.3 Has the coordinating/managing entity obtained letters of approval for the implementation of the PoA from each Host Party and Annex I Party involved in the PoA? | Please refer A.1 and A.4.1.1 above. CAR-01 is raised. | /P01/ | CAR-01 | OK |
| Note: Letters of approval shall be issued in accordance with the guidance provided by the CDM Executive Board (EB16, Annex 6). | | | | |
| A.4.2. Do the written approvals confirm that the corresponding party | The proposed project is a unilateral | /P01/ | CAR-01 | OK |

| | | | | |
|--|--|-------|-------------------|----|
| is a Party to the Kyoto Protocol? | project, with India as host party. The Letter of Approval from the host party (India) has not been submitted either by the DNA or the project participant. Hence CAR-01 is raised | | | |
| <p>A.4.3. Are the approvals issued from organizations listed as DNAs on the UNFCCC CDM website?</p> <p>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.</p> | India is the host party for this project and ratified the Kyoto Protocol on 2002-08-22. In the Status of Ratification of Kyoto Protocol last modified by UNFCCC on 2006-07-10, India is listed at serial no. 68. The Letter of Approval from the host party has not been submitted. Hence CAR-01 is raised | /P01/ | CAR-01 | OK |
| A.4.4. Do the written approvals confirm that the participation is voluntary? | During the onsite visit, it was identified that the letter of approval from DNA of India has been pending. Hence CAR-01 is raised | /P01/ | CAR-01 | OK |
| A.4.5. Does the written approval from the host country confirm that the project contributes to the sustainable development in the /PoA DD/country? | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| A.4.6. Do the written approvals refer to the precise project title in the PoA-DD submitted for registration or an additional specification of the project activity, e.g. PoA-DD version number? | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| A.4.7. Are the written approvals unconditional with regard to A.3.2, A.3.4 to A.3.6? | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| <p>A.4.8. Has the coordinating/managing entity obtained letters of authorization of its coordination of the PoA from each Host Party?</p> <p><i>The authorizations for the coordination of the PoA can be granted vide the letters of approval from each Host Party.</i></p> | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| A.4.9. Is the information regarding the project participants listed in section A3 and in Annex 1 of the PoA-DD internally consistent to each other? | Yes the information provided in the project participants in section A.3 and annex 1 of the PoA DD is consistent. | /P01/ | CAR-01 | OK |

| | | | | |
|---|---|-------|-------------------|----|
| A.4.10. Has the participation to the PoA of each project participant listed in the PoA-DD been approved by at least one Party involved? <i>Indicate whether the participation of the project participant(s) has been approved by a Party to the Kyoto Protocol. Describe the means of validation employed to draw this conclusion.</i> | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| A.4.11. Are there any other project participants approved but not listed in the PoA DD? | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| A.5 Location of PoA | | | | |
| A.5.1. Has the location (in terms of a geographical area for e.g. municipality, region within a country, country or several countries within which all CPAs to be included of the PoA been correctly described? | Yes the location of the PoA is included in the PoA-DD. The entire geographical boundary of India is considered for the implementation of the CPA of the proposed PoA. | /P01/ | OK | OK |
| A.5.2 Does the CDM-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? | Yes, the PoA-DD mentions definition of project boundary in terms of geographical location as India in PoA-DD. | /P01/ | OK | OK |
| A.5.3 Are all applicable national and/or Sectoral policies and regulations within that chosen boundary reflected in the determination of the baseline? | Yes, all applicable national and/or Sectoral policies and regulations within that chosen boundary reflected in the determination of the baseline. | /P01/ | OK | OK |
| A.6. Technologies/measures of the PoA | | | | |
| A.6.1 Does the PoA-DD contain a clear, accurate and complete description of the CPAs with regard to the technology / measures to be used? | Yes the PoA-DD contains a description of the technology measure implemented under the PoA. However it is unclear whether the CPA will either go for Solar PV or Solar thermal or wind technology or combination. Hence CL-02 is raised. | /P01/ | CL-02 | OK |
| A.6.2 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? | Yes, the proposed project utilizes the latest technology available in the host country which was confirmed during the site visit. | /P01/ | OK | OK |
| A.7. Public funding of PoA | | | | |
| A.7.1 Is the PoA involves public funding? | Yes, there is an affirmation that the ODA | /P01/ | OK | OK |

| | | | | |
|--|---|------------------------------------|-------------------|----|
| | has not been used for the PoA. | /P07/ | | |
| A.7.2 Is there a confirmation that official development assistance has not been diverted to the implementation of the PoA in case public funding is used? | Yes, there is an affirmation that the ODA has not been used for the PoA. | /P01/ /P07/ | OK | OK |
| SECTION B. Demonstration of additionality and development of eligibility criteria | | | | |
| B.1. Demonstration of additionality for PoA | | | | |
| B.1.1 Has it been demonstrated by the CME that describe how in the absence of CDM, none of the implemented CPAs would occur. Note: Refer to “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, annex 03, EB 65” for additionality requirement for the PoA. | The PoA proposed to prove additionality based on three kinds as follows, 1) Micro scale additionality 2) SSC additionality 3) Large scale additionality Nevertheless CAR-04 is raised. | /P01/ /B04/ /B18/ /B06-3/ | CAR-04 | OK |
| B.2. Eligibility criteria for inclusion of a CPA in the PoA | | | | |
| B.2.1. Has the eligibility criteria for inclusion of a CPA under the PoA included in the PoA DD as per “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, annex 03, EB 65. Note: Validation team based on its expertise in the Sectoral scope and any PoA specific requirement can confirm the requirement of any other eligibility criteria. | Yes the PoA-DD contains eligibility criteria as per annex 3 of EB 65. However CAR-03 is raised. | /P01/ /B06-3/ | CAR-03 | OK |
| B.3. Application of methodologies | | | | |
| B.3.1 Does the PoA DD contains description of the technology/measures and indicated the methodology chosen? | Yes the PoA DD contains description of the technology/measures and indicated the methodology chosen. However it is unclear whether the CPA will either go for Solar PV or Solar thermal or wind technology or combination. Hence CL-02 is raised. | /P01/ | CL-02 | OK |
| B.3.2 In cases of multiple technologies/measures or multiple methodologies are being applied, does the PoA DD list all the combinations of technologies/measures and methodologies that will | Yes, the proposed PoA involves multiple methodologies as approved by the CDM EB. The methodology applied for the | /P01/ /P08/ /B08/ | OK | OK |

| | | | | |
|---|--|---------------------------|---------------------|----|
| be used in the PoA? | proposed PoA is AMS-I.D and ACM 0002. | | | |
| B.3.3 In case of sampling plan(If applicable), does the PoA DD provide a description to demonstrate how it meets applicable provisions in the Standard for sampling and surveys for CDM project activities and Programme of activities. | Not applicable for the subject PoA as there is no sampling involved | /P01/ | OK | OK |
| SECTION C. Management system | | | | |
| C.1 Does the PoA DD contains the description of the CME's management system in line with § 17 of annex 3, EB 65? | Yes the PoA DD contains the description of the CME's management system in line with § 17 of annex 3, EB 65. Subject to closure of CL-01. | /P01/ /B06-3/ | /CL-01/ | OK |
| SECTION D. Duration of PoA | | | | |
| D.1. Starting Date of the PoA | | | | |
| D.1.1. What is the starting date of the PoA? Is it Reasonable and does the PoA DD provides how the start date was determined? | Yes the start date of PoA mentioned in the PoA-DD. However the start date of the PoA is not explained and justified under section D.1. CAR-05 is raised. | /P01/ | /CAR-05/ | OK |
| D.2. Length of the PoA | | | | |
| <i>The length of the PoA shall be assessed</i> | | | | |
| D.2.1. What is the length/lifetime of the PoA? Is it reasonable? <i>PoA duration should not exceeding 28 years (60 years for A/R)</i> | Yes the length of the PoA has been considered as 28 years which is reasonable and in line with VVS requirement. | /P01/ /B05/ /B06-3/ | OK | OK |
| E. Environmental Analysis | | | | |
| E.1. Level of Analysis <i>The analysis shall be carried out either on PoA or CPA level</i> | | | | |
| E.1.1.Has it been clearly indicated on which level i.e. PoA or CPA an environmental Analysis has been carried out or will be carried out? | Yes, it has been indicated that the environmental analysis will be done at CPA level. | /P01/ /B06-3/ | OK | OK |
| E.2. Documentation on the analysis of the environmental impacts <i>The analysis shall be assessed</i> | | | | |
| 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 CDM-POA-DD? | Yes, it has been indicated that the environmental analysis will be done at CPA level. | /P01/ /B06-3/ | OK | OK |

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| E.3 Environmental impact Analysis Requirements | | | | |
| E.3.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)? | The environmental analysis will be done at CPA level. | /P01/ /B06-3/ | OK | OK |
| E.3.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out and if applicable duly approved? | The environmental analysis will be done at CPA level. | /P01/ /B06-3/ | OK | OK |
| E.3.3. Are trans boundary environmental impacts considered in the analysis? | The environmental analysis will be done at CPA level. | /P01/ /B06-3/ | OK | OK |
| F. Stakeholders' comments | | | | |
| F.1. Level of Analysis | | | | |
| F.1.1. Has it been clearly indicated on which level i.e. PoA or CPA stakeholder comments have been or will be invited? | Yes, according to the PoA-DD, stakeholder's consultation will be done at CPA level. | /P01/ /B06-3/ | OK | OK |
| F.2. Brief description how comments by local stakeholders have been invited and compiled. | | | | |
| F.2.1. With regard to the PoA, how have local stakeholders' comments been invited prior to the publication of the DDs and summarized? If applicable, was due account taken of the comments received? | Not applicable, see comment above. | /P01/ /B06-3/ | OK | OK |
| F.3. Summary of the comments received | | | | |
| F.3.1. With regard to the PoA, can the summary provided assessed as adequate? | Not applicable, see comment above. | /P01/ /B06-3/ | OK | OK |
| F.4. Report on how due account was taken of comments received | | | | |
| F.4.1. With regard to the PoA, can the report provided assessed as adequate? | Not applicable, see comment above. | /P01/ /B06-3/ | OK | OK |
| F.4.2. With regard to the PoA, can the local stakeholder consultation process in general be assessed as adequate? | Not applicable, see comment above. | /P01/ /B06-3/ | OK | OK |
| SECTION G. Approval and authorization | | | | |

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| <p>G.1 Does the PoA DD indicates and included the letter(s) of approval from Party which wishes to be involved in the PoA, and whether it is available at the time of submitting the PoA-DD to the validating DOE.</p> <p>Note: CME letters of authorization of its coordination of the PoA from each Party shall also been included.</p> | Subject to closure of CAR-01 | /P01/ | CAR-01 | OK |
| PART II. Generic component project activity (CPA) | | | | |
| A.1. Purpose and general description of generic CPAs | | | | |
| <p>A.1.1 Has PoA DD in section A.1 contains the description of the description of each generic CPA within the PoA?</p> | <p>Yes, the description of the PoA-DD is in line with the description of CPA-DD. However the sustainable development is not mentioned in PoA-DD which is mentioned in the CPA-DD. CAR-02 is raised.</p> | /P01/ | CAR-02 | OK |
| SECTION B. Application of a baseline and monitoring methodology | | | | |
| <p>B.1.1. Does the PoA apply an approved and applicable CDM methodology and a valid version thereof?</p> <p>B.1.2. Does the typical CPA apply one of the approved small scale categories and any methodology and tool referred therein?</p> | <p>Yes, the proposed PoA applied two methodologies. AMS-I.D version 17 and ACM 0002, version 12.3.0, which is an approved CDM methodology and valid at the time of validation of PoA-DD.</p> | /P01/ /P08/ /B08/ | OK | OK |
| B.2. Justification of the choice of the methodology | | | | |
| <p>B.2.1. Is the justification of the choice of an approved baseline and monitoring methodology for the typical CPA sufficient?</p> | <p>Yes, the justification of the choice of an approved baseline and monitoring methodology for the typical CPA is sufficiently addressed in the PoA-DD. Nevertheless CL-04 is raised.</p> | /P01/ /B02/ | CL-04 | OK |
| <p>B.2.2. Does a typical CPA apply a combination of approved methodologies? If so, has such combination been approved only once in accordance with “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, annex 03, EB 65”?</p> | <p>Yes the CPA applies a combination of small scale and large scale methodologies which is approved by CDM EB.</p> | /P01/ /B02/ /B05/ | OK | OK |

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| B.2.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled? Have the CME Justified the choice of the selected methodology (ies) by showing that each generic CPA meets each applicability condition of the methodology (ies)? Does documentation that has been used as a basis of justification provided or referenced in the PoA DD. If applicable, does the PoA DD provide a general description of the sampling plan? | Subject to closure of CAR-03 and CAR-04 | /P01/ | CAR-03 CAR-04 | OK |
| B.3. Description of the sources and gases included in the boundary | | | | |
| B.3.1. Are the CPA's spatial boundaries (geographical) of the CPAs to be included are clearly defined? | Yes, the CPA's spatial boundaries are clearly identified in the PoA-DD. | /P01/ | OK | OK |
| B.3.2. Are all sources and GHGs included in the project boundary as required in the applied methodology? | Yes, all sources and GHGs included in the project boundary as required in the applied methodology are included clearly in the PoA-DD. | /P01/ | OK | OK |
| B.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? | Not applicable, methodology does not call to choose the choice of sources and gases to be included or excluded. | /P01/ | OK | OK |
| B.4. Description of how the baseline scenario is identified and description of baseline scenario <i>The description shall be assessed</i> | | | | |
| B.4.1. Does the PoA-DD make provisions to identify possible baseline scenarios to be considered for CPAs? | The applied methodologies prescribe the baseline scenario. The PoA-DD correctly refers to the same. Hence no need to identify alternatives. | /P01/ | OK | OK |
| B.4.2. Does the PoA-DD make provisions to identify the list of all the alternatives? Is the list of alternatives complete? | Not applicable, see comment above. | /P01/ | OK | OK |
| B.4.3. Does the PoA-DD make provisions to identify the baseline scenario for each CPA? | Not applicable, see comment above. | /P01/ | OK | OK |
| B.4.4. Does the PoA-DD make provisions to identify the baseline scenario according to the methodology for each CPA? | Not applicable, see comment above. | /P01/ | OK | OK |
| B.4.5. Does the PoA-DD make provisions that any plausible | Not applicable, see comment above. | /P01/ | OK | OK |

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| alternative scenario is not excluded? | | | | |
| B.4.6. Does the baseline alternatives sufficiently take into account relevant national and/or Sectoral policies? | Not applicable, see comment above. | /P01/ | OK | OK |
| B.4.7. Are the provisions for the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced? | Not applicable, see comment above. | /P01/ | OK | OK |
| B.5. CPA additionality | | | | |
| B.5.1. Assessment and demonstration of CPA Additionality | | | | |
| <p>B.5.1.1. Does the PoA-DD makes provisions to describe the additionality demonstration approach for each generic CPA to meet the eligibility criteria of the PoA including confirmation of additionality of the generic CPA for its inclusion into the PoA.</p> <p>Does the demonstration follow the requirements of the applied methodology and/or other methodological tools?</p> <p>Note: Refer to “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of activities, version 01, annex 03, EB 65” for additionality requirement for the PoA. In case of PoA of having small scale CPAs, the demonstration compliance shall be checked against the requirement of attachment A to appendix B. For PoA utilizing large scale methodology, additionality tool shall be referred.</p> | <p>The CPAs of the PoA is solar PV or Solar Thermal or Wind power project supplying electricity to the grid through a contractual arrangement such as Power purchase agreement.</p> <p>There type of additionality arguments (Micro scale, Small scale additionality and Large scale) is justified in the PoA-DD.</p> <p>Nevertheless CAR-04 and CAR-06 is raised.</p> | /P01/ /B05/ /B18/ | CAR-04 CAR-06 | OK |
| B.5.1.2. Which criteria have been established to assess the additionality of CPA under this PoA? | Please see section 5.1.1 above. | /P01/ | CAR-04 CAR-06 | OK |
| Investment Analysis | | | | |
| B.5.1.3. Does the PoA-DD provide criteria to assess that the proposed CPA of the PoA would not be the most economically or financially attractive alternative or economically / financially feasible without the revenues from the sale of CERs? | Yes, there is a criteria to assess that the proposed CPA of the PoA would not be the most economically or financially attractive alternative or economically / financially feasible without the revenues from the sale of CERs. Nevertheless CAR-07 is raised. | /P01/ /B18/ | CAR-07 | OK |
| B.5.1.4. Is the type of investment analysis selected correctly? | Yes, the investment analysis has been | /P01/ | CL-05 | OK |

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| | selected for the CPA's which doesn't fall in micro scale or positive list of technology where the projects are additional by default. Nevertheless CL-05 and CL-06 are raised. | | CL-06 | |
| B.5.1.5. Is the selected financial indicator chosen and applied correctly, if applicable? | The financial indicator has been rightly explained in the PoA-D. However it is unclear whether the IRR is pre-tax or post-tax. Hence CAR-07, CL-06 and CL-05 are raised. | /P01/ /B18/ | CAR-07 CL-05 CL-06 | OK |
| B.5.1.6. If applicable, were the input values used in the investment analysis valid and applicable at the time of the investment decision and justified? | Yes all the source and reference proposed to prove investment analysis are mentioned in the PoA-DD and CPA-DD. The same is mentioned under the selection criteria for the inclusion of CPA's under this PoA. | /P01/ /B18/ | OK | OK |
| B.5.1.7. If CME proposes to use values from Feasibility Study Reports (FSR) is it possible to verify that the period between the FSR date and investment decision was reasonably short and FSR values did not change materially? | Please refer section B.5.1.6 above. | /P01/ /B18/ | OK | OK |
| B.5.1.8. Is it reasonable to assume that no investment would be made at a rate of return lower than the benchmark by, for example, assessing previous investment decisions by the project participants or some verifiable circumstances that have lead to a change in the benchmark? | Please refer section B.5.1.6 above. Yes, the explanation provided in the PoA-DD and CPA-DD on reasonable to assume that no investment would be made at a rate of return lower than the benchmark. | /P01/ /B18/ | OK | OK |
| B.5.1.9. Is the Investment Analysis prepared in compliance with the latest version of the "Guidance on the Assessment of Investment Analysis" as provided by the CDM EB? | Please refer section B.5.1.6 above. The same has been included under selection criteria for the proposed PoA. | /P01/ /B18/ | OK | OK |
| Barrier Analysis | | | | |
| B.5.1.10. If applicable, are there any issues addressed in the barrier analysis that have a clear impact on the financial viability of the project activity and that shall be assessed by an investment analysis? | Not applicable, please refer section B.5.1.1 to B.5.1.9. | /P01/ | OK | OK |
| B.5.1.11. If applicable, Do the listed barriers exist and is their existence substantiated? Note: (a) by independent sources of data such as relevant national | Not applicable. Please refer section B.5.1.10. | /P01/ | OK | OK |

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| legislation, surveys of local conditions and national or international statistics and/or (b) by interviews with relevant individuals: including members of industry associations, government officials or local experts if necessary? | | | | |
| B.5.1.12 Would any of the identified barriers prevent the implementation of the project activity but not equally prevent the implementation of the possible alternatives, in particular the implementation of the identified baseline scenario? | Not applicable. Please refer section B.5.1.10. | /P01/ | OK | OK |
| Common Practice Analysis | | | | |
| B.5.1.13. Are the geographical boundaries for the common practice analysis identified correctly? | Only for large scale CPA's the common practice analysis has been identified which is in line with ACM 0002 and Tool for the demonstration and assessment of additionality. The geographical boundary considered for analysis is India. Nevertheless CAR-09 is raised. | /P01/ /B18/ | CAR-09 | OK |
| B.5.1.14. Does the PoA DD provides an explanation why this region was selected and deemed more appropriate and is this explanation traceable and reliable? | Please refer section B.5.1.13 | /P01/ /B18/ | CAR-09 | OK |
| B.5.1.15 Are there similar operational project activities, other than CDM activities, "widely observed and commonly carried out" in the defined region? Note: Use official sources and local and industry expertise? | Please refer section B.5.1.13 | /P01/ /B18/ | CAR-09 | OK |
| B.5.1.16. In case there are similar commercially operated project activities, other than CDM activities, already "widely observed and commonly carried out" in the defined region, are there essential distinctions between the CDM project activity and the other similar activities? | Please refer section B.5.1.13 | /P01/ /B18/ | CAR-09 | OK |
| B.6. Estimation of Emission Reductions of CPA | | | | |
| B.6.1. Explanation of methodological choices | | | | |
| B.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 identification)? | Yes, the methodologies provide baseline identification for green field projects. All the equations are rightly applied and justified in the PoA-DD and CPA-DD. | /P01/ /P04/ | OK | OK |

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| B.6.2. Equations, including fixed \$metric values used for ER calculation | | | | |
| B.6.2.1. Are the equations applied correctly according to the applied approved methodology? | Yes, all the equations applied correctly according to the applied approved methodology. | /P01/ /P04/ | OK | OK |
| B.6.2.2. Have conservative assumptions been used when calculating the emissions? | All the assumptions and values applied for the calculation of project emissions are conservatively estimated. For Solar PV and Wind project there is no project emissions. | /P01/ /P04/ | OK | OK |
| B.6.3. Data and parameters to be reported in the CPA-DD form | | | | |
| B.6.3.1. Are provisions made to identify all data and parameters which remain fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions? | Yes provisions are made to identify all data and parameters which remain fixed throughout the crediting period. Nevertheless CL-07 and CL-08 are raised. | /P01/ /P04/ | CL-08 CL-07 | OK |
| B.6.3.2. Does the PoA-DD mention reasonable values for all ex-ante calculation / monitoring parameters? | Yes, the PoA-DD mentions reasonable values for all ex-ante calculation / monitoring parameters. | /P01/ /P04/ | OK | OK |
| B.7. Application of the monitoring methodology and description of the monitoring plan | | | | |
| B.7.1. Data and parameters to be monitored by each CPA | | | | |
| B.7.1.1. Has the PoA DD contains monitoring parameters for the CPAs? Are the means of monitoring of all parameters contained in the monitoring plan feasible and in accordance with the requirements of the applied methodology? | Yes, PoA DD in section B.7.1 provides list of parameters to be monitored by the CPAs of the PoA, nevertheless the monitoring of these parameters are not appropriate and in line with the local conditions in India. Hence CAR-08 and CL-07 are raised. | /P01/ /P04/ | CAR-08 CL-09 | OK |
| B.7.1.2. Has the PoA DD provides all monitoring parameters as required by the applied methodology required to be implemented by CPA monitoring plan? | Please refer section B.7.1.1. | /P01/ /P04/ | CAR-08 CL-09 | OK |
| B.7.2. Description of the monitoring plan for a SSC-CPA: | | | | |
| B.7.2.1 Has PoA DD contains monitoring plan for a CPA in accordance with the approved monitoring methodology, and identified the monitoring provisions and data parameters a CPA has to apply/monitor? | Yes the PoA-DD contains monitoring plan to be employed by any CPA of the PoA, and its compliance with the applied methodology. Nevertheless CAR-08 and | /P01/ /P04/ | CAR-08 CL-09 | OK |

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| | CL-07 are raised. | | | |
| B.7.2.2. Are the QA/QC procedures described under monitoring appropriate sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified? | Please refer section B.7.2.1. | /P01/ /P04/ | CAR-08 CL-09 | OK |
| B.7.2.3. Have all means of implementing the monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology? | Please refer section B.7.2.1. | /P01/ | CAR-08 CL-09 | OK |

Table 2: List of Requests for Corrective Action (CAR) and Clarification (CL) (F-CDM-PoA-DD) ‘Welspun Renewable Energy Program’**PART-I and PART-II of F-CDM-POA-DD**

| No | CAR/CL | | Observation (CAR/CL) | Reference | Summary of project owner response | Revised section(s) of the PoA-DD | Validation team conclusion |
|----|--------|----|---|----------------------------------|--|----------------------------------|---|
| 1 | CAR | 01 | <p>1. 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.</p> <p>2. Modalities of communication is not submitted.</p> | <p>A.1</p> <p>A.4</p> <p>G.1</p> | <p>PP Response#1:</p> <p>1. An application has been submitted to the National CDM Authority, Ministry of Environment and Forests (MoEF), Government of India for the Host Country Approval and the same is submitted.</p> <p>2. The Modalities of Communication is being submitted.</p> | NA | <p>DOE Assessment#1: /P02-2/, /P03/, /P07/,/P10/</p> <p>1. The LoA is verified for the below points,</p> <p>I. The Ministry of Environment & Forests, Government of India, has accorded approval of voluntary participation for the project “Welspun Renewable Energy Program” and has confirmed that the project contributes to sustainable development in India as per their letter no. 4/13/2012-CCC dated 2012-10-11 which is addressed to Ms. Sindoor Mittal.</p> <p>II. The name of CME/project participants and PoA project title mentioned in the LoA are consistent with the details in the PoA-DD.</p> <p>III. The letter was submitted by the WREL to the DOE for review through e-mail and confirms that the corresponding party is a party to Kyoto Protocol.</p> <p>IV. The project is a voluntary initiation in proposed PoA project activity and un-</p> |

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| | | | | | | | conditional. V. The project meets all the sustainable criterion as mentioned by the host country (India). 2. Modalities of communication form has been submitted and verified to be valid. CAR-01 is closed. |
| 2 | CAR | 02 | As per EB67- Annex 28, information on framework implementation and sustainable development are not mentioned in section A.2 of the PoA-DD. | A.2.1 A.2.4 A.2.7 Part-II- A.1.1 | PP Response#1: WREL shall constitute a CDM PoA team for coordinating and managing all operational aspects related to the implementation of the PoA. The team would also be responsible for the management of records and data associated with each CPA. The team may also hire consultants, if deemed necessary, for this purpose. The same has been included in the PoA-DD. Further, the PoA and CPAs proposed to be included under it would contribute to sustainable development of the local area as well as the host country. The same has also been mentioned in section A.2 of the revised PoA-DD. | A.2 | DOE Assessment#1:/P02-1/, /B06-1/ Revised PoA-DD has been corrected to include information on framework of implementation and sustainable development under section A.2 as per EB 67, Annex 28. The same has been verified and found to be OK. CAR-02 is closed. |
| 3 | CAR | 03 | Not all the stipulations provided in EB65, Annex 3 are mentioned and justified under section B.1 of the PoA- | B.2.1 B.2.3 | PP Response#1: Sections B.1 and B.2 of the PoA-DD and section B.5 of the generic CPA-DD have | B.1 B.2 B.5 | DOE Assessment#1:/P02-1/, /B06-3/ The selection criteria mentioned in EB 65, Annex 3 is still not followed strictly. The following general criteria is not |

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| | | | DD and B.5 of the generic CPA-DD. | | been revised as per the stipulations of EB65, Annex 3. | | addressed § 14 (b), (c), (e), (h), § 17, 22, 23 and § 24. CAR-03 is open. |
| | | | | | PP Response#2: With reference to Para 14 b, criteria 1.8 checks whether the CPA is already covered under any PoA or registered as an individual project, thus ensuring there is no double-counting of emission reductions With reference to Para 14 c, the level and type of service is covered under criteria 1.1, 1.2, 1.3 and 1.4. Further, criteria 1.10 and 1.15 check compliance with testing / certifications. With reference to Para 14 e, an additional inclusion criteria has been included. With reference to Para 14 h, criteria 1.13 checks this requirement. With reference to Para 17, the requirement is being met comprehensively in section C (Management System) of PoA-DD. The information with respect to point 22, 23 and 24 has been included in the revised PoA-DD. | B.1 B.2 B.5 | DOE Assessment#2:/P02-2/, /B06-3/ The following eligibility conditions are found to be included in the revised PoA-DD and the same has been verified. <ol style="list-style-type: none"> 1) Additionality demonstration as per Micro scale, SSC and large scale methodologies. 2) Combination of methodologies 3) Geographical boundary 4) Identification and elimination of double counting 5) Technology/measure implemented under the proposed PoA. 6) Start date of the CPA with documentary evidence 7) Criteria on EIA and LSC 8) ODA 9) Threshold limits of respective type of project (Micro scale, SSC and large scale) 10) Management system 11) Updating eligibility criteria. Hence the DOE concludes that the eligibility criteria are verifiable with documentary evidence and provide transparent assessment on the inclusion of CPA in the PoA. CAR-03 is closed. |
| 4 | CAR | 04 | Not all the guidelines are referred under section B.1 of | B.1.1 B.2.3 | PP Response#1: The guidelines have now been | B.1 B.5 | DOE Assessment#1: /P02-1/, /B06-3/, /B06-5/, /B18-6/ |

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| | | | the PoA-DD (Ex: De-bundling, Micro scale additionality, Remaining life time etc) | B.5.1.1 B.5.1.2 | specifically referred in the respective inclusion criteria in section B.2 of the revised PoA-DD. | | The guideline has been correctly applied in the revised PoA-DD according to the scale of the project and its applicability. The same has been verified and found to be OK. CAR-04 is closed. |
| 5 | CAR | 05 | The start date of the PoA is not explained and justified under section D.1. | D.1.1 | PP Response#1: The start date of the PoA has been considered as the date of publication of the PoA for global stakeholder consultation i.e. 12/05/2012 | D.1 | DOE Assessment#1: /P02-1/, /B05/ The start date mentioned is 2012-05-12 which is the webhosting date of the PoA-DD. The same is in line with 'Glossary of CDM Terms'. Hence CAR-05 is closed. |
| 6 | CAR | 06 | 'Tool for the Demonstration and assessment of additionality' is not followed under section B.5 of the generic CPA-DD. | B.5.1.1 B.5.1.2 | PP Response#1: The criteria no. 4.1 for inclusion of a CPA under the PoA specifically requires compliance with the "Methodological tool - Demonstration and assessment of additionality" Version 06. | B.5 | DOE Assessment#1:/P02-1/, /B18-3/ The title of the tool mentioned is not in line with the title mentioned in UNFCCC. |
| | | | | | PP Response#2: The title of the tool has been revised in the PoA-DD. | B.5 | DOE Assessment#2: /P02-2/, /B18-3/ The revised PoA-DD is verified and found to quote the exact title of the tool as 'Tools for the demonstration and assessment of additionality'. Nevertheless criteria w.r.t 'Common Practice analysis' is missing in the PoA-DD. A separate CAR-09 is raised in this regard. CAR-06 is closed successfully. |
| 7 | CAR | 07 | 1) Selection criterion for the financial indicators and respective benchmark is not mentioned in the PoA-DD. | B.5.1.3 B.5.1.5 | PP Response#1: 1) The PoA-DD clearly states that the adopted financial indicator would either be the project IRR or the equity IRR. The | B.5 | DOE Assessment#1: /P02-2/, /B06-3/, /B18-5/, /B18-8/ 1. Revised PoA-DD has been verified and the explanation provided for selection criterion for the financial indicators and |

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| | | | 2) Probability of scenario which touches/crosses the bench mark are not considered in the generic CPA-DD which is required as per § 21 of EB 62, Annex 5. | | choice of the indicator among these two would be left to the project proponent which is in accordance with the “Tool for the demonstration and assessment of additionality” Version 06 which states that the project proponent must “Identify the financial / economic indicator, such as IRR, most suitable for the project type and decision context”. However, justification of either choice would be provided in the CPA-DD. Further, the PoA-DD goes on to provide the list of benchmarks that would be acceptable based on the financial indicator that has been selected. | | respective benchmark is clearly explained in the PoA-DD and is in line with “Tool for the demonstration and assessment of additionality” and “Guidelines on the assessment of investment analysis”. Hence the criterion for the selection of financial indicator and respective benchmark are valid and correct. |
| | | | | | 2) The probability of scenario which touches / crosses the bench mark has now been considered in the generic CPA-DD. | | 2. The revised generic CPA-DD includes the explanation on probability of scenario which touches/crosses the benchmark. The same is verified and found to meet the “Tool for the demonstration and assessment of additionality” and “Guidelines on the assessment of investment analysis”. CAR-07 is closed. |
| 8 | CAR | 08 | The following information are missing in section B.7.2 of the generic CPA-DD, 1) Explanation on daily/continuous | B.7.1.1 B.7.1.2 B.7.2.1 B.7.2.2 B.7.2.3 | PP Response#1: 1) The roles and responsibilities have been | B.7.2 | DOE Assessment#1:/P02-1/ 1. Explanation on continuous monitoring is included as required by the methodology. The same is mentioned in the |

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| | | | <p>measurement of energy generation as required by the monitoring methodology.</p> <p>2) Clear explanation on the measurement methods/procedure for monthly joint meter readings.</p> <p>3) Explanation on emergency preparedness.</p> <p>4) Installation of energy meters and detailed calibration procedures.</p> | | <p>revised in section B.7.2 to specifically mention daily / continuous measurement of energy generation as required by the monitoring methodology.</p> <p>2) The measurement methods / procedures for monthly joint meter readings have been revised in section B.7.2 of the generic CPA-DD.</p> <p>3) Main and check meters shall be installed for monitoring of net energy generation. In case the main meter is not in service, the check meters shall be used. The faulty meters will be duly repaired / replaced in case any error is observed in testing. The same has been mentioned in the generic CPA-DD</p> <p>4) Main and check meters shall be installed for monitoring of net energy generation. Calibration of the energy meters will be</p> | | <p>revised generic CPA-DD. The current monitoring plan is in line with the site conditions of India. Hence verified to be correct.</p> <p>2. Explanation is still not clear on apportioning procedures.</p> <p>3. Emergency preparedness w.r.t the monitoring of the CPA's have been included in the revised generic CPA-DD. The monitoring plan provides procedure for corrective action and scope of continual improvement. Hence the same is verified and found to be OK.</p> <p>4. Installation of energy meter and details of calibration have been included in the revised generic CPA-DD. The calibration procedures are mentioned in the generic CPA-DD. It is verified and found to be OK.</p> <p>CAR-08.1, 8.3, 8.4 are closed. CAR-08.2 is open.</p> |
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| | | | | | <p>undertaken by the grid utility or an authorized third party, at least once every three years, in accordance with Indicative simplified baseline and monitoring methodologies for selected small scale CDM project activity categories (http://cdm.unfccc.int/EB/023/eb23_repan33.pdf). The same has been mentioned in the generic CPA-DD.</p> | | |
| | | | | | <p>PP Response#2: 2) Section B.7.2 of the PoA-DD has been revised to include apportioning procedures for monitoring of net electricity supplied to grid by a CPA.</p> | B.7.2 | <p>DOE Assessment#2:/P02-2/, /B18-8/</p> <p>The different methods of measurement and calculation of the monitoring of net electricity supplied to the grid by the CPA has been explained in the PoA-DD. The same has been verified and found to be acceptable. However, the actual monitoring of the CPA will be done based on the local site monitoring practice. Hence CAR-08 is closed successfully.</p> |
| 9 | CAR | 09 | Selection criterion for Large scale doesn't address common practice analysis. | B.5.1.13 B.5.1.14 B.5.1.15 B.5.1.16 | <p>PP Response#1: The PoA-DD has been revised to include the methods and sources that would be used for demonstration of common practice analysis</p> | B.5 | <p>DOE Response#1:/P02-2/ Explanation provided in the revised PoA-DD has been verified. The PP has followed the correct method to prove common practice analysis. The following documents shall be checked to credibility and integrity of common practice analysis by the DOE during the inclusion of CPA.</p> |

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| | | | | | | | <ul style="list-style-type: none"> • Related government ministries/departments • Solar / Wind / Renewable Energy Industry associations • Solar / Wind / Renewable Energy International associations • Sectoral publications on Solar / Wind / Renewable energy installations • Market penetration of different renewable energy technologies <p>Hence CAR-09 is closed successfully.</p> |
| 10 | CL | 01 | <p>Please clarify the following points under section A.2 of PoA-DD,</p> <ol style="list-style-type: none"> 1. Paragraph 4 of Section A.2 doesn't refer to any source/reference. 2. Footnote 1 is not working. 3. CME and Grid name is not mentioned. | A.2.7 C.1 | <p>PP Response#1:</p> <ol style="list-style-type: none"> 1. The source document web link has been revised since the original web link is no longer available. It may be noted that the entire paragraph has been referenced from the provided web link. 2. The footnote web link has been revised. 3. The CME and grid name has now been mentioned. | A.2 | <p>DOE Assessment#1:/P02-1/, /B09/</p> <ol style="list-style-type: none"> 1. The reference is included in section A.2 of the revised PoA-DD. The information provided in PoA-DD is verified against the reference and found to be valid. 2. Necessary reference has been provided in the revised PoA-DD and the web links are now accessible. 3. CME name and grid name have been consistently mentioned throughout the PoA-DD. It is verified and found to be correct. <p>CL-01 is closed.</p> |
| 11 | CL | 02 | <p>It is unclear in section A.6 of PoA-DD, whether projects will implementation combination of Wind/Solar PV hybrid or Solar PV/Solar Thermal in a single CPA. Please clarify.</p> | A.2.7 B.3.1 A.6.1 | <p>PP Response#1:</p> <p>The PoA will not include Wind / Solar PV hybrid or Solar PV / Solar Thermal technologies in a single CPA. The same has been clarified in section A.6 of the PoA-DD.</p> | A.6 | <p>DOE Assessment#1:/P02-1/, /I-01/, /I-02/, /I-04/</p> <p>The explanation on implementation of technology in the CPA is acceptable and clearly mentioned in the revised PoA-DD. The CPA of the PoA will go for only one technology. The same is confirmed from the interview with</p> |

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| | | | | | | WREL team during the site visit. CL-02 is closed. |
| 12 | CL | 03 | <p>Please clarify the following in section B.1 of the PoA-DD,</p> <ol style="list-style-type: none"> 1) According to the information from Ministry of New and Renewable Energy (MNRE), as of January 2012, India has over 23 GW of installed renewable energy. Please clarify this included large hydro or not. 2) The exact page number/paragraph reference is not mentioned for the proof/footnote provided in the PoA-DD. Please clarify. 3) The following sentence 'The potential is much greater with ranges between 65 and 242 GW' is not referred by any source/reference. Please clarify. | | <p>PP Response#1:</p> <ol style="list-style-type: none"> 1) The figure does not include large hydro projects. The same has been mentioned in the revised text. 2) The exact page number for the reference has now been provided in the footnote along with the web link. 3) The source for wind energy potential has now been included. | <p>B.1</p> <p>DOE Assessment#1:/B09 to B13/, /P02-1/</p> <ol style="list-style-type: none"> 1. The revised PoA-DD is verified for the same and the installed renewable energy figure mentioned doesn't include large hydro. Hence OK. 2. Exact reference has been provided in the revised PoA-DD. It is verified and found to be correct. 3. The reference is now provided in the revised PoA-DD. The information provided is found to be correct. <p>CL-03 is closed.</p> |
| 13 | CL | 04 | <p>Please clarify under generic CPA, section B.2 whether wheeling/captive consumption project are included in any of the CPA?</p> | B.2.1 | <p>PP Response#1:</p> <p>Wheeling/captive consumption projects will not be included in any of the CPAs. The same has been clarified under</p> | <p>B.2</p> <p>DOE Assessment#1:/I-01/, /I-02/, /I-04/, /P02-1/</p> <p>The project which delivers power to grid through power purchase agreement is eligible under this PoA. Hence</p> |

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| | | | | | section B.2 of the generic CPA-DD. | | project which are wheeling/captive electricity consumption by the proposed CPA projects are ruled out and not to be included in this PoA. The same is mentioned in the selection criteria. Hence CL-04 is closed. |
| 14 | CL | 05 | It is mentioned in PoA-DD that the Benchmark for project IRR will be Local commercial lending rate, WACC, Government approved etc. It is unclear whether it will be a pre-tax or post-tax. However the same explanation is not traceable in section B.5 of the generic CPA-DD. Please clarify. | B.5.1.4 B.5.1.5 | PP Response#1: Section B.5 of the generic CPA-DD has been revised to include the provision of pre-tax or post-tax benchmark and IRR. | B.5 | DOE Assessment#1:/P02-1/ The explanation is now provided in the revised CPA-DD. It is the decision of the CPA implementer to opt for the benchmark selection. Hence it is found to be valid. CL-05 is closed. |
| 15 | CL | 06 | Please clarify the exclusion of the following parameter under investment analysis assumptions 'cost of equity', 'cost of debt', 'Subsidy' and 'Grid based incentive'. | B.5.1.4 B.5.1.5 | The 'cost of equity' and 'cost of debt' have been included under the Benchmark section. 'Grid based incentive' and any other revenues that are not covered under tariff would be considered under the head of 'Other revenues'. Another head for 'Subsidy' is being added in the financial indicator analysis assumptions table in the revised PoA-DD. | B.5 | DOE Assessment#2:/P02-2/ All the assumptions used for the financial analysis has been included in the revised PoA-DD. The same is in line with the local accounting principle. The DOE verified the same and found to be valid and applicable for the proposed PoA. CL-06 is closed successfully. |

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| 16 | CL | 07 | Details of OM, BM and CM for southern grid is missing in the PoA-DD (B6.1, B.6.2), however the details of NEWNE grid has been mentioned. Please clarify. | B.6.3.1 | Section B.61 and B.62 of the PoA-DD have been revised to include details of the OM, BM and CM for Southern grid | B.6.1 B.6.2 | DOE Assessment#2: /P02-2/ The emission factor calculation of southern grid has been included in the revised PoA-DD which is fixed ex-ante for the first crediting period. The calculation of emission factor has been taken from the CEA data base and in line with the tools. The DOE verified the calculation and found the values are valid and correct. CL-07 is closed successfully. |
| 17 | CL | 08 | It is unclear whether the degradation factor will be accounted in ER calculation. Please clarify. | B.6.3.1 | PP Response#1: The emission reduction calculations have been revised to include the degradation factor. | B.6.3 | DOE Assessment#1:/P02-1/ The degradation factor has been accounted in the emission reduction calculation for the ex-ante determination of emission reduction in the PoA-DD. The approach followed by the CME is conservative. It is verified and found to be correct. CL-08 is closed. |
| 18 | CL | 09 | Please clarify the following in section B.7.1 of the generic CPA-DD, 1) Name of the agency issuing Joint meter readings 2) Responsible person for doing calibration | B.7.1.1 B.7.1.2 B.7.2.1 B.7.2.2 B.7.2.3 | PP Response#1: 1) The grid utility would be issuing the Joint meter readings. The same has been mentioned under section B.7.1 of the generic CPA-DD. 2) Calibration of the energy meters will be undertaken by the grid utility or an authorized third party. The | B.7.1 | DOE Assessment#1:/I-01/, /I-03/, /I-04/, /P02-1/ 1. The state electricity utility is the responsible agency for the issuance of Joint meter readings which has been mentioned in the revised PoA-DD. It is verified and found to be valid and correct. 2. The calibration of energy meters will be carried out by state electricity utility and the meter calibration will be done |

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| | | | 3) Justification for choosing calibration frequency as once in 3 years. | | <p>same has been mentioned under section B.7.1 of the generic CPA-DD.</p> <p>3) The calibration of the energy meters will be undertaken at least once every three years in accordance with the Indicative simplified baseline and monitoring methodologies for selected small scale CDM project activity categories (http://cdm.unfccc.int/EB/023/eb23_repan33.pdf). The same has been mentioned under section B.7.1 of the generic CPA-DD.</p> | | <p>at NABL accredited mobile laboratory or any accredited laboratories.</p> <p>3. The explanation provided is specific to small scale CDM project activity. Hence the explanation is not acceptable. CL-09.3 is open.</p> |
| | | | | | <p>PP Response#2:</p> <p>3) The calibration and testing of energy meters will be undertaken by the grid utility or an authorized third party in accordance with the terms of the Power Purchase Agreement / state or national electricity metering regulations / Central Electricity Authority (Installation and</p> | B.7.1 | <p>DOE Assessment#2:/P02-2/, /B01-1/</p> <p>In line with EB 65, Annex 4, § 242, the calibration frequency has been taken from national standard i.e., from CEA guideline/B20/, page number 12, § 18 (1) which mentions that all the interface meter shall be calibrated at least once in 5 years. However the CME/CPA implementer will do the calibration at least once in 3 year and it depends on the requirements of the PPA. Thus the frequency of calibration is found to be</p> |

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| | | | | | <p>Operation of Meters) Regulations, 2006 but at least once every three years. Section 18.1 (b) Page 12 of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 states that all interface meters shall be tested at least once in five years. However, we are conservatively considering a calibration and testing frequency of at least once every three years. The same has been mentioned in section B.7.1 of the revised PoA-DD.</p> | | <p>valid and correct.</p> <p>CL-09 is closed successfully.</p> |
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Appendix B

Certificates of Competence

Qualification

MP, Kanal /

Emission Trading

United Nations Framework Convention on Climate Change

(The following data is set by the certification body)

Auditor No.:
(AuditorenRegNr)Appointed:
(Zugelassen)

ja

Qualification Level:
(Qualifikationsstufe)

Lead Auditor

External:
(Externer)Add. reviewer:
(Zusätzlicher Prüfer)EAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)

CDM 03 - Energy demand

CDM 06 - Construction

CDM 13 - Waste handling and disposal

CDM 15 - Agriculture

Add. qualification:
(zus. Qualifikation)First Appointment:
(Erstberufung)

06/02/2012

Valid to:
(Gültig bis)

05/02/2015

Remarks:

TA. 1.2, 3.1, 6.1, 13.1/13.2, 15.1

Languages:

English

Tamil

Hindi

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

Date: 2012-07-04
Change: EAC CDM, CDM, CDM, CDM, CDM added
By: Praveen Urs
Reason:

History

| | | |
|-----------|-----------------------------|---------------------|
| Created: | 03/12/2012 01:18:50 PM ZE5B | Kanal MP/Ind/TUV |
| Modified: | 07/04/2012 02:21:23 PM ZE8 | Praveen Urs/Chn/TUV |
| | 06/29/2012 01:57:34 PM ZE8 | Praveen Urs/Chn/TUV |
| | 03/12/2012 01:19:19 PM ZE5B | Kanal MP/Ind/TUV |

Qualification

Ramalingam, Murali /

Emission Trading

United Nations Framework Convention on Climate Change

(The following data is set by the certification body)

Auditor No.:
(AuditorenRegNr)

Appointed:
(Zugelassen)

ja

Qualification Level:
(Qualifikationsstufe)

Lead Auditor

External:
(Externer)

Add. reviewer:
(Zusätzlicher Prüfer)

EAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)
CDM 03 - Energy demand

Add. qualification:
(zus. Qualifikation)

First Appointment:
(Erstberufung)

05/15/2012

Valid to:
(Gültig bis)

05/14/2015

Remarks:

TA 1.2
TA 3.1

Languages:

Tamil
English

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

Date: 2012-06-18
Change: EAC CDM, CDM added
By: Praveen Urs
Reason:

History

| | | |
|-----------|-----------------------------|-----------------------|
| Created: | 06/18/2012 10:47:56 AM ZE5B | Kaustubh Rane/Ind/TUV |
| Modified: | 06/18/2012 06:02:36 PM ZE8 | Praveen Urs/Chn/TUV |
| | 06/18/2012 06:02:33 PM ZE8 | Praveen Urs/Chn/TUV |
| | 06/18/2012 10:48:25 AM ZE5B | Kaustubh Rane/Ind/TUV |

Qualification

C, Indumathi /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:

(AuditorenRegNr)

Appointed:
(Zugelassen)☒ jaQualification Level:
(Qualifikationsstufe)

Lead Auditor

External:
(Externer)☐ jaAdd. reviewer:
(Zusätzlicher Prüfer)☒ yesEAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)

Add. qualification:
(zus. Qualifikation)First Appointment:
(Erstberufung)

06/06/2012

Valid to:
(Gültig bis)

05/06/2015

Remarks:

TA 1.2

Languages:

Tamil
English
Hindi

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

