



South Asia

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Validation Report

VALIDATION OF THE CDM-PoA:
PoA FOR PROMOTION OF THE IMPROVED WATER
MILLS (IWM) IN NEPAL

AND VALIDATION OF THE SPECIFIC CDM-CPA:
PoA FOR PROMOTION OF THE IMPROVED WATER
MILLS (IWM) IN NEPAL – CPA # 1

REPORT NO. 00027PT

31st August 2015

TÜV SÜD South Asia Pvt. Ltd.
Environmental Technology
Carbon Management Service
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INDIA

Date of first issue of this report	Revision No. of this report	
02/08/2013	05	
Managing Entity (contractor): Alternative Energy Promotion Centre (AEPC)	Host Country/ies: Nepal	
CPA Implementer: Alternative Energy Promotion Centre (AEPC)	Project Site: Federal Democratic Republic of Nepal, Longitude 80.200000° to 88.200000° (East Longitude 80°12' to 88°12') and Latitude 26.366667° to 30.450000° (North Latitude 26°22' to 30°27')	
Applied Methodology / Version:	AMS-I.B version 12	Scope(s): 1 Technical Area(s): 1.2
First PoA-DD Version (GSP): PoA-DD version date: 30-09-2011 Version No.: 01 Starting Date of GSP 05-10-2011	First CPA-DD Version (GSP): CPA-DD version date: 30-09-2011 Version No.: 01 Starting Date of GSP 05-10-2011	
Final PoA-DD version: PoA-DD version date: 03-08-2015 Version No.: 08	Final CPA-DD version: CPA-DD version date: 03-08-2015 Version No.: 08	

VALIDATION OPINION

TÜV SÜD has performed a validation of the aforementioned CDM programme of activity (PoA) and specific CPA.

Standard auditing techniques have been used for the validation of the PoA and the specific CPA. An internal validation checklist has been prepared to conduct the validation process in a transparent and comprehensive manner.

The review of the PoA and CPA design documentation, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In the opinion of TÜV SÜD, the PoA and the specific CPA fulfill all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the PoA for registration by the CDM Executive Board. TÜV SÜD also recommends the specific CPA for inclusion under the PoA.

An analysis, as provided by the applied methodology, demonstrates that the proposed activity is not a likely baseline scenario. Emission reductions attributable to the activity are additional to any that would occur in the absence of the programme. Considering that the PoA will be implemented as designed, the CPAs under the same are likely to achieve emission reductions.

The validation has been performed following the requirements of the latest version of the CDM VVS and on the basis of the contractual agreement. The single purpose of this report is its use during the registration process as part of the CDM project cycle. Based on the work described in this report, nothing has come to our attention that causes us to believe that any project component or issue has not been covered by the validation process.

Pune, 31/08/2015



Eswar Murty, Member Certification Body "Environment and Energy"
TÜV SÜD South Asia Pvt Ltd

Abbreviations

ACM	Approved Consolidated Methodology
BM	Build Margin
CAR	Corrective Action Request
CB	Certification Body
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
CER	Certified Emission Reduction
CM	Combined Margin
CME	Coordinating Managing Entity
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
DM	Diesel Mill
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	GreenHouse Gas(es)
GSP	Global Stakeholder Consultation / Process
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
OM	Operating Margin
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD South Asia Pvt Ltd
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Clean Development Mechanism Validation And Verification Standard

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1 INTRODUCTION

1.1 Objective

The objective of the validation process is to provide an independent assessment by a third party, a Designated Operational Entity (DOE), of the proposed Programme of Activities (PoA) and the Component Project Activity (CPA; generic and specific) against the applicable CDM requirements. The assessment involves the evaluation whether the proposed activities comply with the requirements of §37 of the CDM modalities and procedures, the applicability conditions of the selected methodology and any applicable guidance issued by the CDM Executive Board (CDM-EB).

The PoA validation is part of the PoA CDM project cycle and results in a conclusion by the executing DOE on whether or not the PoA is valid to be submitted for registration to the CDM-EB. The CPA validation is also part of the PoA CDM project cycle and results in a conclusion by the executing DOE on whether or not a CPA is valid to be included under the proposed PoA. The ultimate decision on the registration of a proposed PoA rests with the CDM-EB and the Parties involved.

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM PoA, the scope is set by:

- The Kyoto Protocol, in particular §12 and modalities and procedures for the CDM;
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords);
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1);
- Clean Development Mechanism Validation And Verification Standard (VVS) published under <http://cdm.unfccc.int>;
- Decisions and specific guidance outlined by the EB which are published under <http://cdm.unfccc.int>;
- Guidelines for completing the CDM PoA and CPA design documents (PoA-DD and CPA-DD) and the applied CDM methodology;
- Baselines and monitoring methodologies (including GHG inventories);
- Management systems and auditing methods;
- Environmental issues relevant to the applicable sectoral scope;
- Applicable environmental and social impacts and aspects of the CDM PoA;
- Sector specific technologies and their applications;
- Current technical and operational knowledge of the specific sectoral scope and information on best practice.

The validation process is not meant to provide any form of consulting to the project participant (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the programme design.

Once TÜV SÜD receives the design documents, it is made publicly available through a dedicated interface on the UNFCCC CDM website for global stakeholder consultation. The duration of the period for submission of comments for the global stakeholder consultation is 30 days.

2 VALIDATION METHODOLOGY

The information provided by the project participant(s) is assessed by applying the means of validation specified in the “Clean Development Mechanism Validation And Verification Standard” and standard auditing techniques. In the absence of specific means of validation specified in the VVS, the standard auditing techniques are applied.

A competent team is selected for the performance of the validation prior to the start of the assessment. The team is selected to cover the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CDM PoA and specific CPA. Once the program is made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified, and the preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB “Environment and Energy” before being submitted to the CDM-EB.

In case the validation team identifies issues that require further elaboration, research or expansion in order to determine whether the activities meet the CDM requirements, and whether the CPAs under the same PoA can achieve credible emission reductions, findings are raised as specified in the VVS.

All corrective action and clarification requests shall be closed out in order to submit the request for registration for this PoA.

All requests are listed in annex 1 of this validation report including the responses provided by the project participant(s) as well as the means of validation of these responses and any references to any resulting changes in the design documents or supporting annexes.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD composed a project team in accordance with the appointment rules of the TÜV SÜD Certification body “Environment and Energy”.

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates the following qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL);
- Validator (V);
- Validator Trainee (T);
- Technical Experts (TE);
- Country expert (CE);
- Technical review (TR).

It is required that the sectoral scope(s) and the technical area(s) (TA) linked to the methodology and project has to be covered by the assessment team. A technical review is conducted to perform a check on quality and completeness. Appointment certificates are attached to this report in Annex 3.

Assessment Team:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect	Host country experience	Conducted On-site visit
Praveen Tekchandani	ATL	-	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Johann Thaler*	V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nikunj Agarwal	TE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bhairaja Maharajan†	-	-	-	-	-	<input checked="" type="checkbox"/>

Technical Reviewer:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect
Robert Mitterwallner‡	TR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (All)	NA
Eswar Murty	TR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (All)	<input checked="" type="checkbox"/>

Appointment certificates are attached to this report in Annex 3.

2.2 Review of Documents

The GSP-DDs and additional background documents related to the PoA and specific CPA design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources was performed as an initial step of the validation process. A complete list of all documents and evidences reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

From 21/11/2011 to 27/11/2011, TÜV SÜD performed a physical site inspection and interviews with project stakeholders to confirm relevant information and to resolve issues identified in the first document review. A list of all persons interviewed in this process is presented in annex 2 to this report.

2.4 Cross-check

During the validation process the team has made reference to available information related to similar projects or technologies as described in the CDM PoA and CPA. Project documentation has also been reviewed against the approved methodology applied to confirm the appropriateness of formulae and correctness of calculations.

* Left the Organisation.

† Left the Organisation.

‡ Left the Organisation. He was the TR till final submission (before Incompleteness).

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions (CAR), clarifications (CR), and any other outstanding issues which need to be clarified for TÜV SÜD's conclusion on the PoA and CPA design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the managing entity, the CPA implementer and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in annex 1 to this report.

TÜV SÜD received the Incompleteness from the UNFCCC on 10th April 2014 because of the following reasons:

1. *The DOE shall clarify how AMS I.B version 10 has been applied to calculate emission reductions, in particular:*

(a) *Section A.6 of PoA DD describes that IWMs generate both mechanical energy and electricity, however it is not clear whether the project participants will claim emission reductions for both mechanical energy and electricity. If so, the DOE/PPs shall explain how baseline emissions of the mechanical energy and electricity energy are calculated respectively.*

(b) *The applied methodology provides options in calculating baseline emissions of mechanical energy and electricity energy, however it is not clear which options have been applied and how formula (1) & (2) in page 37 of the PoA DD are in compliance with the options in page 2 of AMS.I.B version 10. In doing so, the project participants shall also specify which option/paragraphs were selected and applied.*

(c) *AMS I.F has been applied to determine the emission factor of diesel based power generator, however the applied methodology (AMS I.B version 10) did not refer to AMS I.F.*

DoE: The above three points has been discussed in CAR 41, 42 & 43.

2. *With regard to the sampling plan:*

(a) *The DOE did not explain how it has validated the appropriateness of using a single formula (page 52 of PoA DD) to calculate the sample sizes of two parameters of interest, since the two parameters of interest (i.e. daily operating hours of IWM and number of IWM operating in each CPA) are two different types of parameters (i.e. mean value parameter and proportional parameter respectively) whereas the single formula applied is only applicable to one out of the two parameters (i.e. proportional parameters). Please refer to Appendix 1 of EB 75 Annex 8 (page 15, 16, 17, 23, 24 and 25).*

(b) *Footnote 1 of the PoA DD indicates entrepreneurs are possible users of IWM whereas the target population of the sampling plan (e.g. page 51 of PoA DD) has only included the households. If the target group of the PoA includes users other than households, users other than households shall be specified and included in the sampling plan.*

(c) *Please also note the sampling plan in the PoA DD is developed as per Guidelines for Sampling and surveys for CDM Project Activities and CDM Programme of Activities version 3 (i.e. EB75 Annex 8) whereas it has been validated against Guidelines for Sampling and surveys for CDM Project Activities and CDM Programme of Activities version 2 (i.e. EB69 Annex 5), which are not consistent.*

DoE:

- a) The reason behind using the single formula for the calculation of the sample size is that the formula appearing in the previous DD gave the more conservative estimate of the sample size. Formulae for both the parameters of interest (proportional parameter and mean value parameter) are now presented by the PP in the revised PoA DD. The same has been

validated by the DoE. Appendix 5 of the PoADD gives the further background information on the monitoring plan of the PoA DD.

- b) This has been discussed under CR 16.
- c) This was the typo error, the same has been corrected in section 3.6 of this report.

TÜV SÜD received the Second Incompleteness from the UNFCCC on 23rd April 2015 because of the following reasons:

It is observed that the approach in calculating and claiming emission reductions is not consistent with the statement of emission reductions claimed in the PoA-DD, since:

(a) The IWMS is reported to generate both mechanical energy and electricity (1-3 kW, as described in section A.6 of PoA DD), whereas the capacity of the IWM (which appears to generate both mechanical energy and electricity) has been used to calculate the emission reduction of the mechanical energy;

(b) It is not clear whether the capacity of the IWM is equal to the "mechanical power requirements" defined as per paragraph 9(a) of approved methodology AMS.I.B version 11.

The DOE is requested to report how it has validated the calculation of the emission reductions of mechanical power as per paragraph 9(a) of approved methodology AMS.I.B version 11. In doing so, the PP/DOE are requested to explain the operation mode of the IWM, in particular: (i) how the mechanical energy and electricity are to be generated; and(ii) whether the mechanical energy and electricity are generated simultaneously.

DoE: The above two points has been discussed in CR 18.

- The emission reductions are solely calculated for the mechanical energy generated which relies on the operational status and duration of operation of the IWM for milling purpose. This does not account the baseline emissions attributable to "fossil fuel for lighting" in baseline scenario.
- The "mechanical power requirements" is now consistent with the definition provided as per para 9 (a) of approved methodology AMS.I.B version 11 (as per para 16(a) of the version 12). The installed IWM generates mechanical power which is solely consumed for agro processing. were validated by DOE and has been successfully resolved (Please see CAR # 31 and 32 in the validation report)
- The turbine that generates mechanical and electrical energy is the same. During day time, the turbine is connected with the pulley that conveys power to milling unit while in the evening the turbine is connected to the generator by another pulley to generate electricity.
- The mechanical energy and electricity are not generated simultaneously.

2.6 Internal Quality Control

Internal quality control within the team is assured by means of a technical review process that takes place after the on-site assessment and after the closure of findings. The internal quality control in the validation process is given by the final decision (Validation Opinion) made by the CB "Environment and Energy".

3 REPORTING REQUIREMENTS

The assessment work and the main results are described below in accordance with the CDM Validation and Verification Standard (VVS). The reference documents indicated in this report are stated in annex 2 of this report.

3.1 Global stakeholder consultation

No comments have been received during the global stakeholder process.

3.2 Approval, Authorization and Contribution to sustainable development

Party / DNA	Authorized Project Participant(s)
Federal Democratic Republic of Nepal / Ministry of Science, Technology and Environment	Alternative Energy Promotion Centre (AEPC)
<p>The Party issued a LoA (IRL 79) to AEPC.</p> <p>The Party's DNA is included in the list available on the UNFCCC CDM.</p> <p>As checked by TÜV SÜD the LoA is in accordance with paragraph 39-42 of the VVS.</p> <p>The project participant mentioned above has been authorized by the aforementioned DNA.</p> <p>TÜV SÜD received the LoA from the project participants and has confirmed authenticity.</p> <p>The host Party's DNA has confirmed the contribution of the project to the sustainable development of the host Party.</p>	

3.3 Modalities of Communications

TÜV SÜD used notarized documentation (IRL 82) to perform due diligence on the Modalities of Communication (MoC) statement (IRL 82). The notarized documentation (IRL 82) confirms the corporate identity of all project participants and focal points included in the MoC statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories.

TÜV SÜD confirms that the MoC statement complies with all relevant forms and requirements as

- the latest version of the form "Modalities of Communication statement" (F-CDM-MOC) has been used
- the information required as per the F-CDM-MOC, including its annex 1, is correctly completed
- the project participant's authorized signatories signing the F-CDM-MOC correspond to the project participant's authorized signatories included in F-CDM-MOC, annex 1

3.4 Design Documents

The PoA-DD and the CPA-DDs are in compliance with the relevant forms and guidance as provided by UNFCCC. The most recent versions of the PoA-DD and CPA-DD forms were used. It can be further confirmed that the two parts of the PoA-DD including the first part (i.e. PoA) and the second part

(i.e. generic CPA) have been filled correctly. There are generic CPAs submitted by PP demonstrating additionality (for details please refer to section 3.6.3 and 3.6.8.2 and 3.6.8.3 of this report). TÜV SÜD considers that the guidelines for the completion of the PoA documents in their most recent version have been followed. Furthermore, TÜV SÜD confirms that the PoA-DD and the CPADDs (generic and specific) are in compliance with relevant forms and guidance, hence the requirement of VVS § 62 & 63 is fulfilled.

The closure of CARs/CRs/FARs/Stakeholder consultation performed in the validation cycle is reflected in the table below to comply with the requirement of §147 (c), VVS:

Subject	Web-hosted PoA-DD	Final PoA-DD	Assessment and reason of acceptance
PDD (project title / participants involved/ project location /project technology etc.)	<p>CAR 1 was raised as:</p> <p>1) A.2. of GSP PoA-DD has to explicitly mention how the proposed programme contributes to emission reductions.</p> <p>2) A.2. of GSP PoA-DD is not clear about who is finally responsible for implementing and managing the program. In one section it is mentioned that "ESAP under AEPC implements and manages the IWM program", then it is indicated "AEPC would carry out the project implementation activities....and manage the entire programme across the country", in</p>	<p>Major changes in the final PoA-DD in comparison of the GSP PoA-DD is:</p> <p>Role of AEPC, ESAP, CRT/N and Ghatta Owner in terms of PP, CME, Implementation agencies in PoA-DD is revised in Section A.2.</p> <p>PoA is to be implemented over a period of twenty-eight years, commencing in October 5, 2011.</p> <p>The sentence "The IWM project activity of implementation of projects in Nepal but out of this GoN sponsored IWM program also can avail</p>	<p>PP has responded CAR 1 and elaborated the revised DD.</p> <p>It has been mentioned in A.2. that by avoidance of diesel mills by IWM, huge amount of diesel required to run diesel mills, can be avoided, thus reducing GHG emissions.</p> <p>2) It has been cross checked from the revised PoA DD that CME will be the implementer of all CPAs. Besides, it is indicated that the NGO CRT/N will assist the CME to implement the programme. The same was discussed during on site by the audit team.</p> <p>CRT/N plays a key role in research and development (R&D), quality control, training and capacity strengthening of service centres, water mill owner association and manufacturers.</p> <p>3) Information corrected.</p> <p>PP has finally corrected the name of PP in the final PoA DD.</p> <p>These issue was successfully closed as explained in CAR 1 & CAR 3 in Annex 1 of this report.</p>

	<p>another section again it is mentioned that “the programme is implemented by CRT/N”. PPs are requested to provide clear and transparent information.</p> <p>3) A.2. of GSP PoA-DD mentions that “the IWM program....is to implemented over a period of five years, commencing in January 2012”. A few sentences later it is indicated that “the project is expected to be fully implemented by 31 December 2018.” This information is not consistent. PPs are requested to revise.</p> <p>CAR 3 was raised as:</p> <p>“AEPC under Ministry of Environment, GoN” has been indicated as PP in A.3. and in Annex 1 “Alternative Energy Promotion Center (AEPC)”. PP is</p>	<p>benefits under this PoA” has been removed.</p> <p>Major changes done with respect of CAR 3 is that PP has revised the final PDD by mentioning the “Alternative Energy Promotion Centre (AEPC)” as PP</p>	
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	<p>requested to provide consistent information.</p> <p>2) The Table in A.3 mentions as additional PPs “to be decided at CPA level”. PPs have to be decided at PoA level since in the case of being participant in the programme, a LoA would be necessary at PoA validation stage.</p>	in whole document.	
Methodologies and tools applied (scope and version)	<p>CAR 23 was raised as :</p> <p>The PoA-DD mentions that for each CPA the upper limit is considered to be 5 MW (as per the “Guidelines for demonstrating additionality of microscale project activities”). It has to be further mentioned in column “project activity applicability” that the 5 MW are clearly below the 15 MW indicated in the methodology. Besides, the</p>	<p>Major changes was done in the final DD for the methodological requirement:</p> <p>The total installed capacity of individual CPAs covered under this PoA will be less than 5 MW, to meet micro scale project activity criteria (EB63, Annex 23, Version 01).</p> <p>The IWM installation will prevent installation of DMs in the future. At</p>	<p>PP has amended the DD, the same was validated by the audit team.</p> <p>Revised PoA-DD has been validated to appropriate eligibility criteria for the project activity – transparently indicating that project activity will be less than 5 MW or 3000 IWMs.</p> <p>The procedures as per paragraphs 9, 11, 14 and 16 of the methodology has been explained (as requested by the DOE) in E.6.1. of the revised PoA-DD. It has been indicated that baseline emissions are calculated as per paragraph 7(a) of the methodology and that paragraphs 8 and 9 are not applicable and that there is no leakage as per paragraph 17 of the methodology.</p> <p>Revised PDD has been checked for the methodology requirement and hence CAR 23, 31 was successfully closed out.</p>

	<p>justification of the size of a diesel-based generator (that would be required to provide the same mechanical energy than the IWM) is not indicated.</p> <p>CAR 31 was raised as:</p> <p>E.6.1. has to explain the procedures as per paragraphs 7, 8, 9 and 10 of the methodology and indicate the chosen option (if offered by the methodology) and explain if one of the paragraphs is not applicable to the programme and why.</p>	<p>present, DMs of installed capacity 10 horsepower (7.5 KW) to 16 horsepower (11.9 KW) are widely used in Nepal.</p>	
<p>CER calculations (formula applied/ amount of emission reduction)</p>	<p>Leakage calculation and emission reduction calculation was not transparent in the DD, hence CAR 31 was raised.</p> <p>CAR 32 was raised as:</p> <p>In Figure 04 the capacity of</p>	<p>No major changes in the PoA-DD regarding CAR 31.</p> <p>Major changes with respect of CAR 32 is:</p> <p>To resolve the inconsistency</p>	<p>PP has revised the DD as per para 17 of the methodology.</p> <p>PP has submitted the ER calculation sheet there is no leakage as per paragraph 17 of the methodology.</p> <p>CAR 31 & 32 was closed out, as PP has submitted the excel sheet and revised DD by clarifying the calculation more transparently.</p>

	<p>IWMs is mentioned as 1.5 and 2 kW, in section E.6.3. however as average values of 1.35 for small shafts and average value of 2.25 for large shaft IWMs. Further A.4.2.1. mentions “IWMs of installed capacity of ranging from 0.65 kW to 3 kW”. PPs are requested to resolve inconsistencies.</p>	<p>regarding the installed capacity of IWM (Long Shaft and Short Shaft) a study Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill is conducted. Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in the whole PoD DD and ER calculation sheet to remove inconsistency.</p>	
<p>Additionality: (Benchmark / input values/ analysis type/ project start date/ IRR or NPV values etc.)</p>	<p>CAR 10 was raised as the additionality demonstration was not clear in the initial DD.</p>	<p>Latest guideline for additionality and eligibility criteria were used in the final PoA DD.</p>	<p>PP has revised the DD with new additionality argument and revised the eligibility criteria 3. PP has updated the DD with the latest available guidelines. PP has demonstrated the additionality argument in the revised DD and updated the CPA DD accordingly. Hence CAR 10 was closed out.</p>
<p>Monitoring (parameters / frequency)</p>	<p>CAR 35 was raised as Monitoring plan presented in PoA DD was not complete. Also the</p>	<p>A study Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill is</p>	<p>In response of the CAR 35, PP has revised the DD with further clarification as per the methodology. CAR 35 & 36 was closed after checking the revised PDD and supporting documents as per the applied methodology.</p>

	<p>QA/QC procedures regarding the monitoring was not clear.</p> <p>CAR 36 was raised as 1) Section E.7.2. mentions some parameters which are not monitored but parameters determined ex-ante. PPs are requested to revise.</p> <p>2) A sampling plan (for parameters to be monitored) is missing and has to be added (see as well CAR in A.4.4.6.).</p>	<p>conducted after DOE field visit to confirm the installed capacity of IWM (Long Shaft and Short Shaft). Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in whole document in PoD DD and ER calculation sheet. The study report is submitted to DoE as supporting document # 92.</p> <p>2) The QA/QC procedures have been described in the monitored section.</p> <p>All the three parameters $Q_{T,i}$, $Q_{OP,i}$ and $Q_{NW,i}$ are to be monitored through Ex post monitoring survey and will be crosschecked using the</p>	
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		<p>formula $Q_{OP,i} = Q_{T,i} - Q_{NW,i}$. Pls. refer section E-7.1 of monitoring plan of PoA-DD). Further, in case, if authentic data could not be obtained for any of one parameter of above formula, it can be obtained using values of available two parameters.</p> <p>Major changes with regard of CAR 36 are:</p> <p>1) The parameters have been revised. IWM installed capacity, TWM installed capacity, Average loading of IWM, and Emission factor of diesel based power generator are part of ex-ante list.</p> <p>2) Detailed sampling plan is added in Annex 5</p>	
Crediting period (type / start date)	CAR 17 was raised as the	Start date of the project ac-	PP has revised the start date in the revised DD.

	start date of the project activity was not clear.	tivity and credit period has been changed in the final PoA DD.	CAR CAR 17 was closed based on the explanation provided in the revised PDD and in the Annex 1 of the report.
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In opinion of TÜV SÜD the project description, as included in the PDD, is accurate and complete; and it provides a correct understanding of the proposed project activity. Further this also complies with the requirement mentioned in § 29 of VVS.

3.5 Application of the selected baseline and monitoring methodology

3.5.1 Applicability of the selected baseline and monitoring methodology

Compliance with each applicability condition as listed in the chosen baseline and monitoring methodology has been demonstrated.

The validation team assessed by checking the UNFCCC webpage that the baseline and monitoring methodology selected by the project participants are the valid versions of those approved by the Board.

Applicability criteria from AMS-I.B Version 12

This category comprises renewable energy generation units that supply individual households or users or groups of households or users with mechanical energy who otherwise would have been supplied with fossil fuel based energy. These units include technologies such as hydropower, wind power, and other technologies that provide mechanical energy, all of which is used on-site by the individual Household (s) or user(s), such as wind-powered pumps, solar water pumps, water mills and wind mills.

Information from POA-DD:

Project activity is an installation of Improved Water Mill (IWM), which will avoid installation of diesel mills. In the absence of those IWMs, the mechanical energy for the users would have been provided by fossil fuel (diesel) based mills. This will be validated using eligibility criterion 5 mentioned in section B.2 of the PoA-DD

Assessment:

The validator compared the actual text of the applicable version of the methodology with the information stated in the PoA-DD and CPA-DD.

During CPA inclusion this applicability criteria for respective CPA shall be validated using validated eligibility criteria 5.

At a PoA level, the POA-DD refers to "IWM" IRL (77) which was verified by the assessment team. Furthermore, audit team has also validated the baseline study to verify the use of diesel in absence of those IWMs (IRL #24). A letter from Ministry of Environment, Science and Technology (Government of Nepal) has also been validated that IWMs implemented by AEPC would replace or avoid installation of diesel based water mills (IRL #80).

Hence it is confirmed by the local and sectoral knowledge of the assessment team that the content of this document is correctly quoted and interpreted in the POA-DD.

Validation opinion:

The documentation content is correctly quoted and interpreted in the POA-DD and CPA-DD.

The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

Where generation capacity is specified, it shall be less than 15MW. If the generation capacity is not specified, the estimated diesel-based electricity generating capacity that would be required to provide the same service or mechanical energy shall be less than 15 MW. In the case of irrigation where diesel fuelled pumps are used directly, the cumulative rating of diesel-fuelled pumps shall not exceed 15 MW.

The size of a diesel-based generator or a diesel pump that would be required shall be justified.

Information from POA-DD/CPA-DD:

The total installed capacity of individual CPAs covered under this PoA will be less than 15 MW, to meet small scale project activity criteria (EB83, Annex 14).

The IWM installation will prevent installation of DMs in the future. At present, DMs of installed capacity 10hp to 16hp are in operation in Nepal (and the same was confirmed in Final baseline report). This will be validated using eligibility criterion 2 mentioned in section B.2 of the PoA-DD.

Assessment:

The validator compared the actual text of the applicable version of the methodology with the information stated in the POA-DD and CPA-DD.

During CPA inclusion this applicability criteria for respective CPA shall be validated using validated eligibility criteria 2.

It has been validated that this applicability is adequately covered by eligibility criteria.

The DD refers to “installed capacity of IWM” (IRL 77) which was verified by the assessment team. Hence it is confirmed by the local and sectoral knowledge of the assessment team that the content of this document is correctly quoted and interpreted in the POA-DD.

Validation opinion:

The documentation content is correctly quoted and interpreted in the POA-DD and CPA-DD..

The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

For irrigation applications involving replacement of the pump in addition to renewable energy use, the operating characteristics (head v/s discharge and efficiency) of the new pump should be similar to or better than the system being replaced or would have been replaced. In irrigation applications where the water distribution system is replaced or modified, the new system should have distribution efficiency similar to or better than the replaced system.

Information from POA-DD:

NA, since the PoA and CPA is not under irrigation application as per the compliance with eligibility criterion 1 mentioned in section B.2 of the PoA-DD.

Assessment:

The validator compared the actual text of the applicable version of the methodology with the information stated in the POA-DD and CPA-DD.

The information in the DD was verified by the assessment team. Hence it is confirmed by the local

and sectoral knowledge of the assessment team that the content of this document is correctly quoted and interpreted in the PoA-DD.

Validation opinion:

The documentation content is correctly quoted and interpreted in the DDs.

The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

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

Information from POA-DD:

The total installed capacity of individual CPAs covered under this PoA will be less than 15 MW. This will be validated using eligibility criterion 2 mentioned in section B.2 of the PoA-DD.

Assessment:

The validator compared the actual text of the applicable version of the methodology with the information stated in the POA-DD and CPA-DD.

The DD refers to “installed capacity” which was verified by the assessment team during on site. Hence it is confirmed by the local and sectoral knowledge of the assessment team that the content of this document is correctly quoted and interpreted in the DD.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.

The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

Project activities adding renewable energy capacity should consider the following cases:

Case 1) Adding new units;

Case 2) Replacing old units for more efficient units.

To qualify as a small scale CDM project activity, the aggregate installed capacity after adding the new units (case 1) or installed capacity of the more efficient units (case 2) should be lower than 15 MW.

Information from POA-DD:

Project activity fits under both Case :

- 1) Adding new units
- 2) Replacing old units for more efficient units.

The total installed capacity after adding the new units (case 1) and installed capacity of more efficient units (IWMs) (case 2) covered under the each CPAs of this POAs will be less than 15 MW. The same was discussed during on site with CME.

This will be validated during the CPA inclusion using eligibility criterion 1 and 2 mentioned in section

B.2 of the PoA-DD.

Assessment:

The validator compared the actual text of the applicable version of the methodology with the information stated in the POA-DD and CPA-DD.

The DD refers to “installed capacity” which was verified by the assessment team during on site. Hence it is confirmed by the local and sectoral knowledge of the assessment team that the content of this document is correctly quoted and interpreted in the DD.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The project activity involves the installation of a new grid-connected power plant that is mainly fired with renewable biomass from a dedicated plantation (fossil fuels or other types of biomass may be co-fired);

Information from POA-DD:

Not Applicable

Assessment:

This Project activity is not the grid connected Power plant, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

There was no other power plant on site before Prior to the implementation of the project activity, no power was generated at the project site (i.e. the project plant does not substitute or amend any existing power generation at the project site);

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not substitute any other power plant, the same is discussed and checked during onsite by the audit team.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity is not the grid connected Power plant, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

Biomass used by the project facility is not stored for more than one year;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity is not using the biomass, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The dedicated plantation must be newly established as part of the project activity for the purpose of supplying biomass exclusively to the project.

Information from POA-DD:

Not Applicable

Assessment:

This Project activity is not the biomass based power plant, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The biomass from the plantation is not chemically processed (e.g. esterification to produce bio-diesel, production of alcohols from biomass, etc) prior to combustion in the project plant but it may be processed mechanically or be dried;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity is not the biomass based power plant, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The site preparation does not cause longer-term net emissions from soil carbon. Carbon stocks in soil organic matter, litter and deadwood can be expected to decrease more due to soil erosion and human intervention or increase less in the absence of the project activity;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the site preparation, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The land area of the dedicated plantation will be planted by direct planting and/or seeding;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the plantation, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

After harvest, regeneration will occur either by direct planting or natural sprouting;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the harvesting, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

Grazing will not occur within the plantation;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the plantation, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

No irrigation is undertaken for the biomass plantations;

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the plantation, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

The land area where the dedicated plantation will be established is, prior to project implementation, severely degraded and in absence of the project activity would have not been used for any other agricultural or forestry activity. The land degradation can be demonstrated using one or more of the following indicators:

(a) Vegetation degradation, e.g.,

- crown cover of pre-existing trees has decreased in the recent past for reasons other than sustainable harvesting activities;

(b) Soil degradation, e.g.,

- soil erosion has increased in the recent past;
- soil organic matter content has decreased in the recent past.

(c) Anthropogenic influences, e.g.,

- there is a recent history of loss of soil and vegetation due to anthropogenic actions; and
- Demonstration that there exist anthropogenic actions/activities that prevent possible occurrence of natural regeneration.

Information from POA-DD:

Not Applicable

Assessment:

This Project activity does not requires the plantation, Hence this applicability criteria is not applicable to this project activity.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

Applicability criteria from AMS-I.B Version 12

In case the project activity involves the replacement of equipment, and the leakage effect of 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.

Information from POA-DD:

Not Applicable. Replaced TWM parts are dismantled without possibility of reuse at any other location. Also, since this is a renewable energy based technology, maintenance of replaced equipment scraping records is not required as it will not generate any GHG emission.

Assessment:

Replaced TWM parts cannot be used at any location, the same was discussed during on site.
Observation: This will be further verified during verification by the DOE.

Validation opinion:

The documentation content is correctly quoted and interpreted in the PoA-DD and CPA-DD.
The applicability criteria is met by the project activity.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the project activity.

3.5.2 Baseline scenario identification and description

TÜV SÜD did following steps to assess the requirements for baseline identification:

- initial document review
- on-site visit
- view of information from similar projects and/or technologies
- E+ E- Policy
- Rural Energy Policy

The PoA is a voluntary coordinated action as evident from the fact that there is no mandatory regulation which mandates use of IWM in Nepal. The same has been confirmed from the local & sectoral knowledge.

A declaration signed by AEPC (IRL 71) has been validated to confirm that the PoA is a voluntary action and that existing national policies and guidelines in Nepal (Rural Energy Policy 2006 (IRL 9), Renewable (Rural) Energy Subsidy Policy 2009 (IRL 10) only provide the incentives for the installation of IWM and do not provide any obligations or enforced targets. Based on those provided documents and the host country experience of the audit team it is confirmed that there is no mandated legal requirement for replacing traditional water mills by IWM in Nepal. Sufficient supporting documentation has been provided which confirms that there is no E- policy as per EB22, Annex 3 which needs to be taken into account in developing the baseline scenario (for details see CR in E.4.4. in Annex 1).

According to the presented documentation and results found by the DOE during on-site field visits, the DOE can confirm that “in the absence of those IWM the mechanical energy would have been provided by fossil fuel based energy” (diesel based mills) and that the baseline scenario is the one as described in the PoA-DD. Besides, it has been shown yet that the baseline is in accordance with the applied methodology. See CAR 22 28, See CR 4. Furthermore, audit team has also validated the baseline study to verify the use of diesel in absence of those IWMs (IRL #24). A letter from Ministry of Environment, Science and Technology (Government of Nepal) has also been validated that IWMs implemented by AEPC would replace or avoid installation of diesel based water mills (IRL #80).

The sources referenced in the PoA-DD have been quoted correctly.

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions used for project activity calculations, TÜV SÜD can conclude that the identified baseline scenario is reasonable.

Taking the definition of the baseline scenario into account, TÜV SÜD cannot conclude yet that all relevant CDM requirements, including relevant and/or sectoral policies and circumstances, have been identified correctly in the PoA-DD.

The following sources of information were used for crosscheck the information contained in the POA-DD:

Assumption / Data used for baseline identification	Source stated in PoA-DD (reference documents, etc.)	Information checked by cross-	Conclusion
The baseline scenario is the use of diesel based	This has been confirmed by the	Interviews with government officials (IRL #0)	It can be concluded baseline scenario is

Assumption / Data used for baseline identification	Source stated in PoA-DD (reference documents, etc.)	Information checked by cross-	Conclusion
mills to cater the milling related services. Para 12 of the methodology AMS.I.B version 12 requires project proponent to demonstrate that equipment used to generate mechanical energy is fossil fuel based generator(s) or pump(s) without renewable component or co-firing of renewable biomass and para 14 specifies the conditions where the diesel is deemed to be the baseline under the suppressed demand scenario. Similarly, para 15 (b) deems the existence of the scenario of suppressed demand if the project activity is located, among others, in the Least Developed Countries (LDC). Since, Nepal is a least developed country ^{*†} , according to para 14 of the methodology, the baseline for the project is diesel based milling services by default.	"Baseline study of Improved Water Mills (IWM) as a Clean Development Mechanism (CDM) project" conducted on May 2012. IRL #24, 80.	and onsite assessment. During the meeting it was discussed with the official about the scenario of fuel used in past and current scenario for the use of fuel in the country. Data and source used in the report was cross checked by the Letter issued by Ministry of Environment, Science and Technology (IRL 180) was also discussed and cross checked during on site.	the use of diesel based mills to cater the milling related services.

A verifiable description of the baseline scenario has been included in the PoA-DD).

TÜV SÜD confirms the following statements:

^{*}http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf

[†]<http://unctad.org/en/Pages/ALDC/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx>

- (a) All the assumptions and data used by the project participants are listed in the DDs, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the DDs;
- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence, and can be deemed reasonable;
- (d) Relevant national and/or sectoral policies and circumstances are considered and listed in the POA-DD;
- (e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario, and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.
- (f) The POA-DD provides a description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity.

3.5.3 Algorithms and/or formulae used to determine emission reductions

TÜV SÜD has assessed the calculations of project emissions, baseline emissions, leakage, and emission reductions. Corresponding calculations have been carried out based on calculation spreadsheets. 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 and respective tools. An equation comparison has been made to ensure consistency between all the formulae presented in the calculation files and in the POA-DD, methodology, and tools.

The estimate of the baseline emissions are considered correct as the calculations have been reproduced by the audit team with the attainment of the same results.

The procedures provided in the methodology are correctly depicted in the PoA-DD, generic CPADD, and specific CPA-DD. The emission reduction calculation has been validated as per para 16 (a) option (i) of the applied methodology AMS-I.B ver 12.

It was verified that existing Traditional Water Mill (TWM) has output required for milling purpose, therefore it is validated that CME will conservatively claim for additional capacity installed during the replacement.

The additional capacity has been validated as:

$$IC_{add} = IC_{IWM} - IC_{TWM}(1)$$

Where :

IC_{add} – Additional Installed Capacity, kW

IC_{IWM} – IWM installed capacity, kW

IC_{TWM} - TWM installed capacity, kW

As per option (i) para 16(a) AMS.I.B (version 12), the baseline emission has been validated as “The power requirements times hours of operation per year times the emission factor for diesel generator systems, determined according to procedures specified in “AMS-I.A.:Electricity generation by the user”. The formula has been validated as below:

$$ER_y = \sum_{i=1}^n \frac{Q_{OP,i} * IC_{add,i} * OH_i * EF_{Diesel}}{1000}$$

Where:

$$Q_{OP,i} = Q_{T,i} - Q_{NW,i} \quad (3)$$

IC_{add} Additional Installed Capacity, kW

ER_y Emission Reductions in year y (tCO_{2e})

$Q_{OP,i}$ Number (quantity) of IWMs of type i operating under the project activity/units in year y (can be taken up as directly monitored value OR can be calculated as above, if monitored value of $Q_{NW,i}$ is available). Once all of the project IWMs are installed, $Q_{OP,i}$ is a constant value independent from y

i Counter for equipment type

n 2 (for long shaft and short shaft)

$Q_{T,i}$ Number (quantity) of IWMs of type i installed under the project activity (units).

$Q_{NW,i,y}$ Number (quantity) of IWMs of type i not working under the project activity (units) in year y.

$OH_{i,y}$ Operating hours of IWM in year y for the generation of mechanical energy

EF_{Diesel} Emission Factor of diesel based power generators, as per table I.F.1 of AMS I F as guided by the para 9 of AMS.I.A as referred in AMS.I.B (kg CO₂/kWh)

IC_{TWM} , Traditional Water Mill (TWM) installed capacity, has been validated as 0.35 kW (average) from the baseline study report (IRL #24, 80).

IC_{IWM} , Improved Water Mill (IWM) installed capacity, has been validated as the following:

a. Short Shaft: 1.39 kW

b. Long Shaft: 2.83 kW

As a measure to fix the IC_{IWM} ex-ante, the CME has considered a conservative approach to demonstrate that 97% the long shaft & short shaft is more than the identified respective figure above (IRL #24). The DOE deems this as conservative and has accepted the approach.

The assumptions and data used to determine the emission reductions are listed in the POA-DD and all the sources have been reviewed.

Assumption / Data / References used for estimating the emission reductions in the POA-DD	Information crosschecked by	Conclusion
Emission Factor of diesel based power generators (EF_{Diesel})	AMS-I.B, AMS I F & AMS I D	The default value of 1.2 kgCO _{2e} /kWh as per AMS-I.F, version 03, table I.F.1. (the same table is provided in AMS-I.D, version 15, table I.D.1) has been applied. This is the most

Assumption / Data / References used for estimating the emission reductions in the POA-DD	Information crosschecked by	Conclusion
		conservative value for equipments less than 15 kW considering a load factor of 100%.
Sample size of Monitoring Survey (N)	EB 74 Annex 5	The sample size will be determined applying a 90/10 confidence/precision level. This is in accordance with EB74, Annex 5.

TÜV SÜD confirms the following statements

- (a) All assumptions and data used by the project participants are listed in the POA-DD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the POA-DD;
- (c) All values used in the POA-DD are considered reasonable in the context of the proposed project activity;
- (d) The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the POA-DD;
- (f) Any estimates for monitored data or parameter are reasonable for estimating the emission reductions in the POA-DD

3.6 Programme of activities / component project activities

3.6.1 Coordinating/managing entity and participants in a PoA

A clear and transparent description of the operational and management arrangement has been established by AEPC and stated in the PoA-DD. This has been validated during the site audit and various interviews and could be confirmed based on the following underlying documentation:

1. CME Manual (IRL #48), and
2. PoA-DD (IRL #77)

After thorough review of the management system and the associated documents, the assessment team confirms that the system includes a clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs. Furthermore, the system includes clear records of arrangements for training and capacity development for personnel as well as a transparent procedure for technical review of inclusion of any CPAs. A procedure to avoid double-counting is also included in the management system and deemed to be fully sufficient.

Furthermore, it can be confirmed that there is a clear and transparent record keeping system and documentation control process established for each CPA under the PoA: each CPA will be kept in the record keeping system and each CPA under the PoA will identify under a serial numbering system to uniquely identify its location in addition to its technical details, address. In addition, the management system includes measures for continuous improvement.

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies;	AEPC is responsible for <ul style="list-style-type: none"> ▪ Implementation of the PoA . ▪ Support GoN in formulation of policies, plans for promotion of Renewable Energy Technologies in Nepal. ▪ Selection of the Regional Service Centres (RSCs). ▪ Administration of subsidy for IWM. ▪ Assure the competence of staffs involved in executing the PoA and review and assess the performance of staffs involved in executing 	It has been validated that AEPC has clear roles and responsibilities defined, including a review of their competencies (IRL #48).

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>the PoA using the competency matrix.*</p> <ul style="list-style-type: none"> ▪ Establishing and maintaining the IWM credit fund† for IWM owners <p>The specific roles and responsibilities of components under AEPC for the implementation of this PoA are as follows:</p> <p>Climate and Carbon Subcomponent (CCS) is responsible for:</p> <ul style="list-style-type: none"> ▪ Ensuring full compliance with CDM processes related to documentation, validation, monitoring and verification of IWM PoA. ▪ Establishing communication with the UNFCCC and DOE on the matters related to CDM PoA. <p>Community Electrification Sub-Component is responsible for:</p> <ul style="list-style-type: none"> ▪ Manage to ensure the proper implementation of IWM PoA. ▪ Releasing annual activities to Regional Service Centres (RSCs) regarding the capacity building of concerned 	

*Details of competence checking and performance appraisal has been discussed on the CME manual, please refer CME manual for details..

†This fund is not in place till now but is envisaged to be piloted by FY 2013/14 in three districts of Nepal.

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>stakeholders i.e. Service Centers, Ghatta Owners Association (GOA), IWM owners, Kit manufacturing companies.</p> <ul style="list-style-type: none"> ▪ Facilitates AEPC in administration of subsidy for IWM. ▪ Quality control, component internal monitoring of IWM through RSCs and service centers (SCs). ▪ Pre-qualification of the IWM kit manufacturing companies and SCs. ▪ Ensure the provision of after sales services and warranty by the concerned companies to users. <p>Regional Service Centers (RSCs) are local NGOs or companies working for AEPC for the implementation of renewable energy programmes. For this PoA RSCs are responsible for:</p> <ul style="list-style-type: none"> ▪ Facilitating the implementation of IWM PoA at regional and district levels. ▪ Capacity building of Service Centers, Ghatta Owners Association (GOA), IWM owners, Kit manufacturing companies. ▪ Monitoring the status of IWM installed by SCs under the PoA. ▪ Maintaining the database of IWM installed under the PoA 	

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>and report monthly to AEPC.</p> <ul style="list-style-type: none"> ▪ Maintain documentation of IWM installation report and ER transfer slip in hard copies. <p>Local Partner Organizations (LPO) are local (VDCs, ward) organizations working for RSCs for the implementation of IWM at specific local levels. For this PoA RSCs are responsible for:</p> <ul style="list-style-type: none"> ▪ Demand creation of IWM at local level. ▪ Conduct a feasibility study for the application received and submit it to the RSCs.. ▪ Order for manufacturing of the IWM Kits with the Kit Manufacturing Companies once the feasibility study is approved by RSCs. ▪ Install IWM at the respective site and once the installation is complete submit project completion report to RSCs. ▪ Facilitate the monitoring of CPAs in their service coverage area during annual IWM users' survey conducted by an independent third party. ▪ Filling in the IWM owners information in the Owners Booklet and submit the details to the IWM owners. <p>IWM Kit Manufacturers are individuals who work at households levels, and for this PoA are responsible for:</p> <ul style="list-style-type: none"> ▪ Installation of IWM. 	

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<ul style="list-style-type: none"> ▪ Filling the details of the users after mills installation. ▪ Providing two times after sales services to the beneficiary household. <p>District Energy and Environment Unit/Sections (DDEU/S) are the local representative of AEPC at District Development Committee (DDC) who support for the promotion of renewable energy at district level. DEEU/S are responsible for:</p> <ul style="list-style-type: none"> ▪ Coordination and information sharing at district level regarding the implementation of PoA. ▪ Facilitate the promotion of IWM by awareness raising by the officers positioned at DEEU/S. ▪ Demand creation of IWM at local level. 	
Records of arrangements for training and capacity development for personnel;	<ul style="list-style-type: none"> ▪ AEPC ensures quality control and quality assurance by providing the following capacity building activities to different stakeholders: ▪ Service Centres <ul style="list-style-type: none"> ○ IWM installation training ○ IWM repair and maintenance training ○ Subsidy form processing ▪ IWM Kit Manufacturing Companies: <ul style="list-style-type: none"> ○ IWM design and manufacturing training ○ QA/QC while fabricating the IWM 	Relevant training records have been validated for respective person (IRL #81).

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	kits ■ IWM Owners	
A procedure for technical re- view of inclusion of CPAs;	<ul style="list-style-type: none"> ■ All required data/information (user's name, address, IWM installation date, the name of the installer, unique identification number etc) of all IWM that are installed will be recorded in the central database at AEPC. ■ Data of particular IWM will be stored CPA wise in the AEPC's database system. This will help to differentiate the IWMs according to respective CPA. ■ When the installation number of IWM reaches 3,000 (which is the maximum number), Carbon Financing Officer at Climate and Carbon Subcomponent with the concerned Program Officer of Community Electrification Subcomponent will review the database and check all the information required for inclusion of the IWM in a CPA. Quantity of 3,000 IWMs will then be bundled as a single CPA. ■ The Program Officers at Climate and Carbon Subcomponent and Community Electrification Subcomponent will verify the information in the ER transfer slip with the information at central database system. ■ During CPA inclusion, the program officer will check the eligibility criteria as 	<p>Central database system for inclusion of CPA was validated during the onsite visit. It has been validated to have all details pertaining to respective CPAs.</p> <p>Furthermore, detailed procedure has been validated from the CME Manual.</p>

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>mentioned in the PoA-DD.</p> <ul style="list-style-type: none"> ▪ National Advisor of Climate and Carbon Subcomponent will review the CPA inclusion procedure in line to the requirement of the PoA-DD. ▪ Climate and Carbon Subcomponent Manager will perform the quality check, after the successful quality check, he will recommend for inclusion of the specific CPA in the PoA. ▪ Finally AEPC will submit all necessary documents to DOE for the inclusion of CPA in the PoA 	
<p>A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);</p>	<ul style="list-style-type: none"> ▪ All IWMs disseminated under the PoA will be provided with unique identification number (CDM Code) which will ensure the avoidance of double counting. ▪ The CDM code will be provided to the RSCs in the form of metallic tag which will have printed IWM unique code over it and it will be tagged in the IWM. As the individual tag will contain unique number, this prevents double counting. this tag will be different ▪ The IWM tags will be provided to the installer through RSCs. Once the installer installs IWM and tags unique code in it, he/she also record the owner information in the IWM users manual. ▪ IWM CDM codes will be also 	<p>Central database system for inclusion of CPA was validated during the onsite visit. It has been validated to have all details pertaining to respective CPAs – which will avoid double counting by providing unique code to each CPA and IWM as well.</p>

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>cross-checked and verified internal monitoring of IWM by RSC staffs and also during the monitoring of IWM during subsidy release process. This will also prevent the multiple subsidy allocation to the same owner.</p> <ul style="list-style-type: none"> ▪ All IWM implemented under the PoA will be listed in the database. The database system will be designed with the principle of not accepting the same unique number twice. ▪ Double counting check will also be done during the annual IWM users' survey conducted by an independent third party. ▪ A double counting check will be conducted by checking the UNFCCC database, to compare this PoA with the CPAs of other PoAs or other registered CDM project. Similarly, the database of other carbon schemes like Gold standard and VCS will also be checked to confirm that the CPA of the proposed PoA is not a part of CPAs of other PoAs or other registered CDM projects. 	
Records and documentation control process for each CPA under the PoA;	<ul style="list-style-type: none"> ▪ The numbers of IWM disseminated will be reported by SCs to RSCs. The RSCs will enter the data in its database and will send monthly IWM installation report to AEPC. The quarterly and semi annual 	<p>Detailed procedure has been validated from the CME Manual (IRL #48).</p> <p>Central database has been validated during the onsite visit maintained at AEPC for real case CPA.</p>

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>progress reports of RSCs on IWM activities in hard copy will also be submitted to AEPC. AEPC will manage the overall database of the program.</p> <ul style="list-style-type: none"> ▪ AEPC will maintain the central database in electronic format as well as hard copy. The database will include all the information regarding the IWM users-unique number (including CPA number), user's name, address, date of IWM installed, name of installer and the amount of direct subsidy given for every IWM disseminated. ▪ The hard copies of the database, ER transfer slips and unique ID (CDM code) will be filed and kept (recorded) at AEPC and RSCs ▪ The record of installation report, progress report, ER transfer slip will be also monitored during the annual IWM users' survey conducted by an independent third party. 	
Measures for continuous improvements of the PoA management system;	<ul style="list-style-type: none"> ▪ AEPC will implement continuous monitoring and improvement processes in order to ensure proper implementation of the PoA complying with the CDM processes. ▪ Continuous improvement will be done by AEPC through processes such as internal monitoring, update on 	<p>Detailed procedure has been validated from the CME Manual (IRL #48).</p> <p>It was validated that CME will have periodic meeting to evaluate the effectiveness of the management system and implement measures for continuous improvements.</p>

Standard for "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities" (EB 74 annex 05)	Details presented in the PoA-DD	Assessment and Conclusion
	<p>training manuals, designs of IWM, trainings and capacity building of program staffs and continuous monitoring on recommended changes or updates by UNFCCC Secretariat of related PoA procedures.</p> <ul style="list-style-type: none"> ▪ AEPC will also improve and upgrade the data management system and procedures for quality assurance. These systems and procedures will be reviewed on a continuous basis to ensure that no double counting of emission reductions occurs within and across CPAs ▪ In order to ensure that the CME manual embraces all recent developments, the same will be review in every 2 years. 	
Any other relevant elements.	Nil	Nil

In summary, the assessment team confirms that the management system allows the CME to easily check the features of any potential CPAs and ensures that each CPA meets all requirements and eligibility criteria before inclusion in the PoA. As a result, it can be confirmed that the requirements of the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" with respect to the management system are fully met (IRL #16).

3.6.2 CPA Design Document

The proposed specific CPA was assessed by the validation team and it can be confirmed that it complies with the eligibility criteria specified in the PoA-DD. Please refer to section 3.6.9 below for a detailed assessment of the compliance with the eligibility criteria.

The means of validation of the specific CPA include a desk review as well follow-up interviews and a site visit. Hence, the requirements of §187 and §188 are considered to be fully met.

3.6.3 Description of a PoA/CPA

The following description of the CDM programme activity as per CPA-DD has been validated:

The project is developed under the Small-Scale Programme of Activities (PoA) titled " **PoA for Promotion of the Improved Water Mills (IWM) in Nepal**".

The CPA implementer has been validated to be the same entity as the CME of the programme, namely AEPC.

The CPA promotes the dissemination of IWMs replacing existing low powered, less efficient Traditional Water Mills (TWMs) to the existing TWM owners and/or new installer (potential diesel mill owners) in Nepal to avoid possible switchover / installation of diesel based high powered mills to meet high powered milling requirements. The project activity will contribute towards improving livelihoods of the rural households through improved access to energy services from the renewable energy based IWMs and meeting the increasing motive power needs of off-grid rural communities of hilly (hills and mountains) areas of Nepal.

The use of Water mills has been validated to result in less consumption of Diesel thus reducing GHG emissions (CO₂); furthermore, the CPA has also been validated to contribute to the sustainable development. The aim of the CPA is to enhance the penetration of efficient IWMs and avoidance of diesel based mills. The IWMs with increased efficiency and cost effective services to the users will help avoid installation of diesel based mills in the rural hilly areas.

The project implementation schedule provided in the CPA-DD has been checked by the validation team against submitted documentary evidence and interviews (IRL 52).

The CPA has been validated to result in an average annual emission reduction of **11,022 tCO₂e**.

The starting date of the CPA is 05/10/2011 based on the glossary of CDM Terms [IRL 78]. The length of the CPA is taken as 7 years.

The information presented in the CPA documents is consistent with the actual planning and implementation of the activity confirmed in the following ways:

(a) Document review including

- A review of data and information;
- Cross checks between information provided in the PoA-DD, CPA-DD and information from sources other than those used including the DOE's sectoral or local expertise. In addition, independent background investigations were performed.

(b) Follow-up actions including:

- Interviews with relevant stakeholders in the host country, personnel with knowledge of the PoA/CPA design and implementation;
- Cross checks between information provided by interviewed personnel (i.e. by checking sources or other interviews) to ensure that no relevant information has been omitted.

(c) Reference to available information relating to projects or technologies similar to the proposed PoA under validation;

It is TÜV SÜD's opinion that the project description, as included in the PoA-DD including the generic CPA-DDs and the specific CPA-DD, is accurate and complete; and it provides a correct understanding of the proposed programme and the specific CPA. After assessment of the PoA-DD including the CPA-DD that was submitted to TÜV SÜD by the CME, the assessment team confirms the framework developed for the implementation of the PoA, and defining a CPA under the PoA as per VVS §189.

For a more detailed assessment of the framework including CME and participants, physical/geographical boundary, technology/measures and public funding information please refer to the sections below.

3.6.4 Application of Multiple Methodologies

Not Applicable

3.6.5 Boundary for the PoA in terms of geographical area

The CPA boundary has been assessed considering information gathered from the physical site inspection, interviews, and secondary evidence received on the design of the CPA.

The project boundary is the physical, geographical site of the Water Mills (IWM). The sources and gases within the boundary have been considered in a clear manner.

After thorough assessment of the PoA-DD and the underlying documentation (IRL #77), it can be confirmed that the project participants in establishing the boundary of the PoA have taken into consideration all applicable national and sectoral policies and regulations within that chosen boundary.

Therefore, the audit team confirms that the identified boundary, the selected sources, and gases as documented in the PoA-DD are justified for the proposed PoA (including the generic and specific CPA) and are fully in line with the requirements set by the applied methodology and the PoA-DD as per VVS §87. Furthermore, it can be confirmed that the boundary of the specific CPA is correctly identified and in line with the underlying requirements. It can also be confirmed that the sources and gases included in the specific CPA boundary are in accordance with the above.

Emission sources, not addressed by the applied methodology and expected to contribute more than 1% of the overall expected average annual emission reductions, have not been identified.

Hence, TÜV SÜD confirms that the boundary for the PoA in terms of geographical area is accurately selected and complete in order to comply with the VVS (§§191-192).

3.6.6 Start Date of a PoA / CPA -

The start date of the PoA is the 05/10/2011, the date on which PoA documents were uploaded for Global Stakeholder process (IRL #0), which is validated to be in line with para 193 of VVS.

In addition the assessment team further confirms that the start date of the CPA is not prior to the commencement of the validation of the PoA. The start date of the specific CPA is validated to be 05/10/2011, on which the validation of the PoA was started.

Hence, it can be confirmed that the start date of the specific CPA is not prior to the date the CDM-PoA-DD was first published for global stakeholder consultation (i.e. 05/10/2011). As a result, it can be confirmed that the requirements of VVS §193 are met.

3.6.7 Prior Consideration of the CDM

According to EB 60, annex 26 and VVS §194, the demonstration and assessment of prior consideration of the CDM does not apply to PoAs.

3.6.8 Demonstration of additionality of the PoA as a whole

The additionality of each CPA is demonstrated by complying with the eligibility criterion mentioned in the PoA-DD ("A CPA will not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year"). These criteria are in accordance with the "Guidelines for demonstrating additionality of small scale project activities" (version 10), Annex 14, EB83. The paragraph 2(c) of this guideline states:

2 (c) Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds.

Each unit of IWM has the capacity of 2.83 kW, as checked by the calculation in the emission reduction spread sheet, which is less than 750 kW (5% of 15 MW) installed capacity. The PoA is thus additional and there is no need for further assessment and demonstration of additionality. Hence the requirement of VVS para 195 has been met.

3.6.8.1 Identifications of alternatives

Not applicable, because the baseline scenario is defined as per the approved methodology - VVS/115.

3.6.8.2 Investment Analysis

Not applicable.

3.6.8.3 Barrier analysis

Not applicable.

3.6.8.4 Common practice analysis

Not applicable.

3.6.9 Eligibility criteria for inclusion of a CPA in the PoA

All the eligibility criteria required for the inclusion of the CPA under the PoA have been addressed in the PoA-DD and will be assessed for each potential CPA through the procedures described in the PoA Management System (PoA MS). The stated confirmation against each eligibility criteria has been checked and found acceptable. It can be confirmed that the criteria are verifiable, sufficiently objective as well as comprehensive. Please refer to the following sections for a detailed assessment of the individual criteria as per the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities"

PoA Standard requirement (EB 74 Annex 05)	Assessment and Conclusion (PoA-DD and generic CPA-DD)	Assessment and Conclusion (specific CPA-DD)
The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA.	The geographical boundary of the CPA will be checked by Checking location of IWM in the IWM Project Completion Certificate (PCC)	This specific CPA will involve installation of an IWM in the geographical boundary of Nepal, the same could be verified based on the site visit by DOE. Furthermore, the installations done so far within the CPA was validated using online database at AEPC [IRL 26, 43].
Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo).	Each IWM will have the unique identification number, and hence the double counting will be avoided.	Each IWM to be included in the CPA will consist of a unique identification numbers (AEPC-IWM-XXX-XXXX) as mentioned in section C of the PoA-DD. These identification numbers will avoid the double counting of IWM in

PoA Standard requirement (EB 74 Annex 05)	Assessment and Conclusion (PoA-DD and generic CPA-DD)	Assessment and Conclusion (specific CPA-DD)
		<p>the CPA [IRL 00].</p> <p>AEPC online database under management system has been validated to have these unique identification for IWMs installed so far under the CPA.</p>
<p>The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/ certifications.</p>	<p>The IWMs included under the CPA should be of higher capacity, i.e. in the range of 1.39 kW for short shaft (minimum) – 2.83 kW for long shaft (minimum). Two types of IWM i.e. long shaft and short shaft to be considered.</p> <p>All IWM to be included in the CPA will be implemented complying with the technical specifications specified by AEPC, which will ensure the type of service, performance specifications including compliance with testing/certification.</p> <p>This will be confirmed using IWM Project Completion Certificate (PCC) issued by the service provider.</p>	<p>This will be confirmed using IWM Project Completion Certificate (PCC) issued by the service provider [IRL 43].</p> <p>Sample PCC has been validated for IWMs installed under this CPAs (it was validated that not all 2,200 IWMs have been installed during the validation, hence sample PCC for already installed IWMs were validated during the onsite visit) [IRL 00, 43].</p> <p>100% of the water mills has been checked by the audit team during on site.</p>
<p>Conditions to check the start date of the CPA through documentary evidence.</p>	<p>The Start date of the CPAs will be on or after the date of GSP of PoA. As per the discussion onsite - the starting date of the CPA will be verified by the database maintained by AEPC and also a signed letter from AEPC will be issued which will mention the starting date of each CPA.</p>	<p>This will be confirmed using application form submitted by the TWM or new user to AEPC [IRL 28, 29].</p> <p>For the proposed real case CPA, it has been validated to be the GSP date for the project activity.</p>
<p>Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs.</p>	<p>All the CPA to be included under the PoA needs to comply the Applicability criteria mentioned in the methodology AMS I B version 12.</p>	<ul style="list-style-type: none"> Project activity is validated as an installation of Improved Water Mill (IWM), which will avoid installation of diesel mills [IRL 46]. The total installed capacity of individual CPAs covered under this PoA will be less than 15 MW to comply with

PoA Standard requirement (EB 74 Annex 05)	Assessment and Conclusion (PoA-DD and generic CPA-DD)	Assessment and Conclusion (specific CPA-DD)
		<p>the small scale requirement of the applied methodology.</p> <ul style="list-style-type: none"> The project activity is validated not to be under irrigation application [IRL 23]. The total installed capacity after adding the new units (case 1) and installed capacity of more efficient units (IWMs) (case 2) covered under the each CPAs of this POAs will be less than 15 MW. <p>It was validated that all applicability criterion was covered using different eligibility criteria.</p>
The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality,	All CPAs will ensure to meet the requirements pertaining to the demonstration of additionality as mentioned in paragraph 8, Annex 3, EB 65 of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmed of activities", which mentions that PoAs that will include one or more microscale projects as CPAs shall include eligibility criteria derived from the relevant requirements of the "Guidelines for demonstrating additionality of microscale project activities". The paragraph 2(a), Annex 23, EB 63 of this guideline explains that microscale projects are the renewable energy projects with no more than 5 MW installed capacity are additional if the geographic location of the project activity is in a LDC.	<p>The maximum power output of IWM is 5 KW. Therefore maximum number of IWM to be included in the CPA = threshold capacity/max power of IWM= 15000/5= 3000 [IRL 52].</p> <p>CPA plan for the proposed real case CPA was validated to have 2,200 IWMs [IRL 52, 53].</p>
The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consulta-	Stakeholder consultation has already been performed at PoA level so not required at CPA level. Also, as per "Ministry of Environment, Government of Nepal", Environment Impact Assessment is	Stakeholder consultation has already been performed at PoA level so not required at CPA level [IRL 32,33,34,35,36].

PoA Standard requirement (EB 74 Annex 05)	Assessment and Conclusion (PoA-DD and generic CPA-DD)	Assessment and Conclusion (specific CPA-DD)
tions and environmental impact analysis.	not required for IWM Projects [IRL 30]	
Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance.	As discussed and validated during onsite, all CPAs have to comply with the conditions to provide an affirmation that funding from Annex I parties, if any, does not result in diversion of official development assistance (ODA). The same will be confirmed using the	This was confirmed using letter of no diversion of ODA [IRL 00].
Where applicable, target group (e.g. domestic/ commercial/ industrial, rural/ urban, grid-connected/ off-grid) and distribution mechanisms (e.g. direct installation).	NA	NA
Where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guide-lines/standard from the Board pertaining to sampling and surveys;	This will be validated as per the latest sampling guidelines available at the time of CPA Inclusion as mentioned in the detailed sampling plan stated in the Appendix 5 of the PoA DD.	This was validated as per the sampling details mentioned in the Appendix 5 of the PoA DD [IRL 85, 86].
Where applicable, the conditions that ensure that every CPA in aggregate meets the small-scale or microscale threshold criteria and remains within those thresholds throughout the credit-	The CPA will remain under the total installed capacity threshold of 15 MW.* Each IWM installed under a CPA will be either long shaft or short shaft with minimum capacity of 2.83kW and 1.39 kW respectively.	The maximum power output of IWM is 5 KW and SSC threshold is 15 MW. Therefore maximum number of IWM to be included in the CPA = $\frac{\text{threshold capacity}}{\text{max power of IWM}} = \frac{15000}{5} = 3000$, on conservative basis. The IWMs installed under the CPA

*All CPAs will ensure to meet the requirements pertaining to the demonstration of additionality as mentioned in paragraph 9, Annex 05, EB 74 of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities", which mentions that PoAs that will include one or more small-scale projects as CPAs shall include eligibility criteria derived from the relevant requirements of the "Guidelines for demonstrating additionality of small-scale project activities". The paragraph 2(c), Annex 27, EB 68 of this guideline explains that project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size (i.e. the size of each unit under 750 kW installed capacity or under 3000 MWh of energy savings per year or 3000 tonnes of emission reductions per year.) of each unit is no larger than 5% of the small-scale CDM thresholds are included as positive list of technologies and are automatically additional..

PoA Standard requirement (EB 74 Annex 05)	Assessment and Conclusion (PoA-DD and generic CPA-DD)	Assessment and Conclusion (specific CPA-DD)
ing period of the CPA;		meets the technical specifications as specified in the section A.6 of the PoA DD.
Where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or micro-scale project categories.	This will be checked as per EB 83 annex 13 para 14.	This will be checked as per EB 83 annex 13 para 14 [IRL 4].

The managing entity employs clear and unambiguous criteria for the inclusion of the CPA. The eligibility criteria stated in the PoA-DD are verifiable with regards to the applicability of the applied methodology and EB 74 annex 5. Furthermore, the DOE confirms that the eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

The eligibility criteria can be checked at the CPA level by the managing entity and can be confirmed by the DOE during inclusion.

Hence, TÜV SÜD considers that the eligibility criteria for inclusion of CPA in the PoA is demonstrated accurately in order to comply with the VVS §196.

3.6.10 Crediting period of a PoA/CPA

The assessment team confirms that the length of the PoA is 28 years, hence it is in line with VVS §197.

3.6.11 Monitoring plan for a PoA

The monitoring of $Q_{OP,i}$ & $OH_{i,y}$ will be carried out per each CPA. Primary data will be stored by the implementing entities, and the managing entity will store the data in an electronic database. Furthermore, the set-up of the monitoring plan and the underlying system (i.e. inclusion manual; IRL 81) allows the exact determination of the status of each CPA with respect to its verification and CER issuance, monitoring periods, etc. This system to identify the status of verification of each CPA has also been clearly indicated in the generic CPA-DDs and the underlying documents (IRL 84). The monitoring process and the verification status of each CPA will be done by CME through the review of information provided by the CPA implementers.

The operational and management structure has been clearly described and is in compliance with the envisioned situation. The responsibilities and institutional arrangements for data collection and archiving have been clearly provided. The information provided in the PoA-DD could be confirmed based on the on-site interviews and also through the submitted documentary evidence – management system (IRL 76). Hence it could be confirmed that the PP would be able to implement the monitoring plan as per the methodology and the reporting requirement as per VVS para 133 and 198.

3.6.12 Monitoring plan for a CPA

The monitoring plan presented in the specific CPA-DD complies with the requirements of the generic CPA-DDs and the applicable methodology. The assessment team has verified all parameters in the

monitoring plan against the requirements of the methodology and no deviations have been found. The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment 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 CME and the CPA implementer. Specifically, these points include the monitoring methodology, data management, quality assurance and quality control procedures to be implemented in the context of the activity.

The specific CPA will monitor the following parameters:

- $Q_{OP,i}$ Number (quantity) of IWMs of type i operating under the project activity (units).
- $Q_{T,i}$ Number (quantity) of IWMs of type i installed under the project activity (units).
- $OH_{i,y}$ Operating hours of IWM

Further, this CPA records database(s) will be updated periodically by the managing entity based on the sample survey results and reports will be generated for the specified monitoring period. The parameters to be recorded and updated as a part of monitoring are as under.

- Total number of IWMs installed in different districts
- Record of different types of IWMs installed
- Serial number of IWM installed
- Installation date
- Serial number of TWMs replaced
- Owner's details (Name, Address, etc.)
- Date of the check
- Serial number of appliances checked during sample survey
- IWM status of operation

It can be confirmed that the parameter that is determined ex-post is correctly presented and is considered to be in accordance with the applied methodology and the applied tool. Therefore, the CPA implementer will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-ante and verified as per para 198 of VVS.

3.6.13 Sampling

Sampling will be done as per EB 75 Annex 8.

Detailed sampling plan has been illustrated in Appendix 5 of the PoA DD.

In the first monitoring period the value of proportion of IWM in use is not available to PP, hence the conservative value for proportion (p) 50% has been considered. The real value of p will be considered after the first monitoring survey.

In accordance with EB74 'Standard for Sampling and surveys for CDM project activities and Programme of Activities; sampling plan will apply to the group of CPAs to be included in the PoA. In order to comply with the guidelines and the methodology, the PP has opted for annual sampling and the level of precision of 10% and a confidence level of 90% will be assessed for four parameters-number of IWM disseminated in each CPA, daily operation hours of IWM, installed capacity of each IWM and number of IWM operating in each CPA.

The mills installed under each CPA will have a CPA identifier tag in the PoA monitoring database. Emissions reductions generated by CPAs included in the PoA will be monitored using the data contained in the monitoring database and from the monitoring surveys. A monitoring report describing monitoring activities and calculated emissions reductions will be produced for each monitoring period.

The sampling plan has been demonstrated in the PoA-DD based on the latest guidance EB 75 Annex 8, where a series of requirements for sampling plans have been indicated. The following sam-

The sampling plan has been demonstrated in the PoA-DD based on the latest guidance EB 75 Annex 8, where a series of requirements for sampling plans have been indicated. The following sampling plan will enable the determination of parameter values for the calculation of emissions reductions:

- a) Sampling Design which is based on
 - Objectives & Reliability Requirements
 - Target Population
 - Sampling method
 - Sample size
 - Sampling frame
- b) Data
- c) Implementation

The objective of this sampling plan is to ensure a statistically accurate sample of the population will deliver the confidence/precision required by the methodology and the guidance in EB74.

This is specific to each survey. The plan will also outline the timeframe of the estimated parameter value. Survey data will provide the key parameter values for emissions reduction calculations, where sampling is indicated for parameter determination.

A simple random sampling method will be used. A simple random sample is a subset of population chosen randomly such that each element (or unit) of the population has the same probability of being selected. The sample based estimate (mean or proportion) is an unbiased estimate of the population parameter (para 6, Annex 8, EB 75). In this method, all the high hill and mid hill districts will be considered as a single population and the IWMs will be randomly selected from the entire population.

The samples for monitoring are randomly generated by the IWM database software

CME will ensure that the survey includes all the parameters to be monitored by the independent third party. The survey will be performed by an experience team consisting of enumerators, supervisors and professionals as discussed during on site by the audit team. Field Personnel will be trained for the data collection. The data will be collected through properly structured and reviewed questionnaire and the questionnaire will be pre tested before the Survey Personnel mobilized in the field for the data collection. The field Personnel will fill the questionnaire through face to face interview with the IWM owners. The Surveyor will also observe the IWM to ensure that it is operating. AEPC will ensure that all 65 questionnaires for the monitoring of the parameter.

The independent third party will collect, compile and analyze the data and AEPC will prepare monitoring report based on the maintained database and the survey report prepared produced by the independent third party.

Hence the DOE confirms that the sample size calculations are conservative and are in compliance with EB74: Standard for Sampling and surveys for CDM PA's and CDM PoA's, EB 75 Annex 8 Guidelines for Sampling and surveys for CDM Project Activities and CDM Programme of Activities and guidance provided in EB 75 Annex 8.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment 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 implementers.

Specifically; these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. 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.

3.6.14 Environmental analysis of a PoA

As per the Environment Protection Act (EPA) dated 30 January 1997 and Environment Protection Regulation (EPR) dated 26 June 1997, 12 sectors are required to undertake environmental impact assessment studies. It was verified with the above regulatory bodies that documentation of the environmental impacts, Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) is not a regulatory requirement in Nepal for installation of the IWM. As described above referring to Environment Protection Act, 1997, EIA is not required for IWW project in Nepal.

However PP has considered the EIA at PoA level, Hence the requirement of VVS para 199 has been met.

3.6.15 Local stakeholder consultation

It has been indicated that the local stakeholder consultation is done at both the PoA and CPA level.

The relevant local stakeholders have been invited by APEC via individual letters distributed by door-to-door canvassing.

The evidences of these invitations are given by IRL 32, 33, 34, 35, 36.

The assessment team has reviewed the documentation in order to validate the inclusion of relevant stakeholders. The local expertise of the assessment team confirmed that the communication method used to invite the stakeholders is appropriate and ensures transparency and the unbiased representation of the project information. The summary of comments presented in the CPA-DD has been verified with the documentation of the stakeholder consultation and has been found to be complete.

Comments presented by the local stakeholders have been taken into account by the managing entity and has been verified with information obtained during on-site interviews.

As a result, it can be confirmed that the local stakeholder consultation is in accordance with the level of consultation specified by the managing entity and that the local stakeholder comments were taken into account and described in the CDM-PoA-DD and the CDM-CPA-DD (i.e §201 and §202).

3.6.16 Determination of occurrences of debundling under a PoA

As per para 203 of VVS, DoE has checked that the proposed small-scale CPA of a PoA is not a de-bundled component of a large-scale project activity in accordance with the "Guidelines on assessment of debundling for SSC project activities".



South Asia

Annex 1

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Definitions contained in the Glossary of CDM terms and applied in the Standard	
Shall / Should / May	In addition to the definitions contained in the Glossary of CDM terms, the following terms apply in the VVS (VVS/10): <u>Shall</u> is used to indicate requirements to be followed; <u>Should</u> is used to indicate that among several possibilities, one course of action is recommended as particularly suitable; <u>May</u> is used to indicate what is permitted.
Credible	Information is credible if it is authentic and is able to inspire belief or trust, and the willingness of persons to accept the quality of evidence. (VVS/17)
Reliable	Information is reliable if the quality of evidence is accurate and credible and able to yield the same results on a repeated basis. (VVS/17)
CAR	The DOE shall raise a corrective action request (CAR) if one of the following situations occurs (VVS/27): (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions; (b) The applicable CDM requirements have not been met; (c) There is a risk that emission reductions cannot be monitored or calculated.
CL	The DOE shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. (VVS/26)
FAR	The DOE shall raise a forward action request (FAR) during validation to identify issues related to project implementation that require review during the first verification of the project activity. The DOE shall not raise a FAR that relates to the CDM requirements for registration (VVS/27)

Compilation and Resolutions of CARs, CRs and FARs

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details of the project activity. Hence transparent explanation along with information is required in the PoA-DD.	Closed IRL 56,85,86
Requirement	Para 30 of project standard	
Corrective Action Request	<u>Corrective Action Request No.1</u> 1) A.2. of GSP PoA-DD has to explicitly mention how the proposed programme contributes to emission reductions. 2) A.2. of GSP PoA-DD is not clear about who is finally responsible for implementing and managing the program. In one section it is mentioned that "ESAP under AEPC implements and manages the IWM program", then it is indicated "AEPC would carry out the project implementa-	

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Corrective Action Requests by the assessment team		
	<p>tion activities....and manage the entire programme across the country”, in another section again it is mentioned that “the programme is implemented by CRT/N”. PPs are requested to provide clear and transparent information.</p> <p>3) A.2. of GSP PoA-DD mentions that “the IWM program....is to implemented over a period of five years, commencing in January 2012”. A few sentences later it is indicated that “the project is expected to be fully implemented by 31 December 2018.” This information is not consistent. PPs are requested to revise.</p> <p>4) The sentence “The IWM project activity of implementation of projects in Nepal but out of this GoN sponsored IWM program also can avail benefits under this PoA” is not clear to the reader and has to be revised.</p>	
Response	<p>1) A.2. Revised in section A.2 of POA-DD version 02</p> <p>2) Role of AEPC, ESAP, CRT/N and Ghatta Owner in terms of PP, CME, Implementation agencies in PoA-DD is revised in Section A.2.</p> <p>3) A.2. Revised as: PoA is to be implemented over a period of twenty-eight years, commencing in October 5, 2011.</p> <p>4) The sentence “The IWM project activity of implementation of projects in Nepal but out of this GoN sponsored IWM program also can avail benefits under this PoA” has been removed.</p>	
Assessment Means of validation	<p>1) It has been mentioned in A.2. that by avoidance of diesel mills by IWM, huge amount of diesel required to run diesel mills, can be avoided, thus reducing GHG emissions.</p> <p>2) It has been cross checked from the revised PoA DD that CME will be the implementer of all CPAs. Besides, it is indicated that the NGO CRT/N will assist the CME to implement the programme. The same was discussed during on site by the audit team.</p> <p>CRT/N plays a key role in research and development (R&D), quality control, training and capacity strengthening of service centres, water mill owner association and manufacturers.</p> <p>3) Information corrected.</p> <p>4) Sentence has been removed.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on pro-	PoA-DD has been revised to incorporate the respective changes.	

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Corrective Action Requests by the assessment team		
ject design		

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details of the project activity. Hence transparent explanation along with information is required in the PoA-DD.	Closed IRL 67
Requirement	Para 30 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.2</u></p> <p>In A.2., chapter “policy/measure or stated goal of the PoA” it is stated that “carbon revenues will be utilised to recover the portion of the costs”. It has to be explained in more detail why carbon revenues are necessary if the project receives financial assistance/subsidies from government and for what activities (within the project activity) such carbon revenues are intended to be utilized.</p> <p>Further DOE Request:</p> <p>The documents highlighted in green (in the column “PP response”) have to be submitted to the DOE. PPs are requested to highlight in the submitted documents the relevant sections to substantiate the PPs response. The DOE will carry out the final assessment of this CAR once all documents with highlighted sections have been provided.</p>	
Response	<p>Final proposal December 2001 regarding Program Support to Nepal’s Renewable Energy Sector planned to provide sector support to improved water mills. The sector support program was planned for the period of 2002 to 2009, although the budget was allocated from DGIS/SNV and the government for six years until 2007 (<i>see document “final proposal December 2001”, page V</i>). The program was initiated in 2003 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009, page 1).</p> <p>DGIS allocated 0.739 million USD and the government allocated 0.245 million USD for IWM promotion (<i>see document “final proposal December 2001”, page V</i>).</p>	

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Corrective Action Requests by the assessment team

The program was limited to seven districts in 2006 due to financial constraints and only 2,388 IWMs were installed by 2006 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, page 5).

The program districts were extended to 16 districts after the Mid Term Review recommendation in 2006 to convert Euro 0.308 million from credit to subsidy with some replacement of old districts by new one from January 2007 until early 2009. 0.637 million USD was allocated to implement the IWM program during 2007-2009 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, page 22).

DGIS/SNV support was expected until 2009 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, cover page) and it was extended without additional budget until 2010 (*Document for extension is missing*). The program slowed down and reduced its activities in 2010 due to lack of sufficient budget, so the IWM installation reduced in 2010 to 556 IWM (compared to 1073 IWM in 2009) (see CRTN annual reports 2009 and 2010).

DGIS/SNV decided to stop supporting the promotion of IWM in December 2010 (*Document for stop is missing*).

The Norwegian government through ESAP program started support for the promotion of IWM since January 2011 (*see document “contract for the operation of AEPC/ESAP January 1st to June 2011 activities”*). This support from Norwegian government ended in March 2012 with the end of ESAP II programme. (see agreement between *Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010* and Joint Financing arrangement between ministry of foreign affairs of Denmark, ministry of foreign affairs of Norway and government of Nepal and Energy Sector Assistance Programme (Phase II) (ESAP- II) Programme Documents, Vol I.

National Rural and Renewable Energy Programme (NRREP) started from July 2012. Under the NRREP framework, IWM program is included as one of the outputs of Community Electrification Sub-component (CES) and the sub-component receives funding from Danida and Norway. There is partial funding from donors for additional 4000 IWMs installation from 2012-2017. In this context, CDM revenue is very crucial to meet the funding gap to ensure continuation of the program in off grid areas of the country. Besides, as the NRREP is supposed to last for five years only, the CPAs developed after the five years span of NRREP will experience a funding gap.

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Corrective Action Requests by the assessment team		
	<p><u>Further PP response</u></p> <p>“final proposal December 2001”, page V is provided in supporting document # 82 “contract for the operation of AEPC/ESAP January 1st to June 2011 activities”, is provided in supporting document #84 “agreement between Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010”, is provided in supporting document # 83</p>	
Assessment Means of validation	<p>The documents underlined above (in the column “PP response”) have to be submitted to the DOE. PPs are requested to highlight in the submitted documents the relevant sections to substantiate the PPs response. The DOE will carry out the final assessment of this CAR once all documents with high-lighted sections have been provided.</p> <p>Appropriate documents requested above have been provided, it was validated that only initial CPAs will be partially funded from this. Hence this issue has been closed out.</p>	
Adjustment on project design	PP has submitted the revised DDs.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details of the project activity. Hence transparent explanation along with information is required in the PoA-DD.	Closed IRL 85,86
Requirement	Para 30 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.3</u></p> <p>1) “AEPC under Ministry of Environment, GoN” has been indicated as PP in A.3. and in Annex 1 “Alternative Energy Promotion Center (AEPC)”. PP is requested to provide consistent infor-</p>	

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Corrective Action Requests by the assessment team		
	<p>mation.</p> <p>2) The Table in A.3 mentions as additional PPs “to be decided at CPA level”. PPs have to be decided at PoA level since in the case of being participant in the programme, a LoA would be necessary at PoA validation stage.</p> <p>Further DOE Request:</p> <p>There is inconsistency between A.3. and Annex 1 regarding PP “Swedish Energy Agency”. The same is included in Annex 1, however not in A.3. PPs are requested to provide clarification.</p>	
Response	<p>1) Revised as: Alternative Energy Promotion Centre (AEPC) as PP in whole document.</p> <p>2) Revised as below in section A.3</p> <p><u>Further PP response</u></p> <p>Discrepancy regarding the inconsistencies has been resolved in the revised POA-DD section A.4</p>	
Assessment Means of validation	<p>1) Information in A.3. and Annex 1 regarding PP “Alternative Energy Promotion Center (AEPC)” is consistent now.</p> <p>2) An additional PP “Asian Development Bank (ADB), trustee of Future Carbon Fund” has been added in A.3. and Annex 1.</p> <p>Further DOE Request:</p> <p>There is inconsistency between A.3. and Annex 1 regarding PP “Swedish Energy Agency”. The same is included in Annex 1, however not in A.3. PPs are requested to provide clarification.</p> <p>Conclusion:</p> <p>It has been validated that PoA-DD is consistent with regards to PPs</p>	

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Corrective Action Requests by the assessment team		
Adjustment on project design	PP has submitted the revised PoA-DD.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details of the project activity. Hence transparent explanation along with information is required in the PoA-DD.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<u>Corrective Action Request No.4</u> GPS coordinates of the Federal Democratic Republic of Nepal have to be indicated in A.4.1.2. of the PoA-DD. The applied data source for these GPS coordinates has to be communicated to the validation team.	
Response	Revised accordingly as below Nepal is located between 80.2 degree to 88.2 east longitude, and 26.23 degree to 30.45 degree north latitude. The information is contained in section A.5 of the revised POA-DD.	
Assessment Means of validation	GPS coordinates have been indicated and are sourced in the PoA-DD. The data source Village Development Committee Profile of Nepal (A Socio-Economic Development Database of Nepal), dated September, 2008 was checked during on-site visit. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the GPS details.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details on the technology transfer of the project activity.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.5</u></p> <ol style="list-style-type: none"> 1) PPs are requested to include diagrams of IWM and TWM in A.4.2.1. and give some explanation (including technical specifications) to these diagrams to better illustrate the differences of both systems. 2) In A.4.2.1. it is mentioned that “each CPA shall only disseminate one specific technology as described under section A.4.”. However there is no such description. PPs are requested to add. 3) Further on, A.4.2.1. indicates that “the technical description and technical details shall be described in the respective SSC-CPA-DD”. However no such technical description and technical details have been provided in the 1st CPA. PP are requested to do so. <p>Further DOE Request:</p> <p>The basic technical features mention in A.4.2.1. for IWM the use of HDPE pipes. Why Figure 3 indicates as well an open chute and Figure 4 just indicates a chute and no pipe?</p>	
Response	<ol style="list-style-type: none"> 1) Revised along with diagrams of TWM and IWM <p>The following information was added in section A.4.2.1.: “IWM has cup shaped metal runners (with buckets) that are mounted on a frame. IWM has metal vertical shaft and uses closed high density polyethylene (HDPE) pipes of 6"-8" diameter with nozzle. A pulley and belt system is introduced for power transmission.”</p> <p>Revised diagram of TWM and IWM is inserted in Section A.4.2.1. along with a Table showing basic technical differences of both technologies.</p> <ol style="list-style-type: none"> 2) Additional information about IWM technology has been provided in section A.4,2.1 3) Has been revised in respective SSC-CPA-DD accordingly 	

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Corrective Action Requests by the assessment team		
	<p><u>Further PP response</u></p> <p>Revised diagram of TWM and IWM is added along with technical specification of IWM in section A.6 of the PoA-DD</p>	
Assessment Means of validation	<p>1) Diagrams of IWM and TWM has been added in the revised PoA-DD and has been cross-checked with the GTZ report (Improvement of water mills in hilly areas of Nepal for rural applications). A Table with Basic Technical Features of TWM and IWM has been added in A.4.2.1. of the revised PoA-DD.</p> <p>2) Additional information about IWM technology has been provided.</p> <p>3) Technical description has been added in the CPA-DD.</p> <p><u>Further DOE Request:</u></p> <p>The basic technical features mention in A.4.2.1. for IWM the use of HDPE pipes. Why Figure 3 indicates as well an open chute and Figure 4 just indicates a chute and no pipe?</p> <p><u>Conclusion:</u></p> <p>Revised PoA-DD has been validated to have correct diagram as validated from the design. CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the project design diagram.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	PoA-DD does not contain transparent details as to whether the technology is environmentally safe.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action	<u>Corrective Action Request No.6</u>	

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Corrective Action Requests by the assessment team		
Request	Type of project activity "Type I – Renewable Energy Projects" is missing. PP is requested to add.	
Response	Type I – Renewable Energy Projects is added	
Assessment Means of validation	A.4.2. mentions now "Type 1 – Renewable Energy Projects". CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Relevant information on technology transfer is not included in the PoA-DD.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<u>Corrective Action Request No.7</u> Section A of the PoA-DD has to inform whether any technology transfer from abroad (including Annex-I-countries) is involved in the proposed activity.	
Response	Added in section A.6 as: There is no technology transfer from Annex 1 countries There is use of local indigenous technology.	
Assessment Means of validation	It has been made clear that there is no technology transfer from annex 1 countries. Local indigenous technology is used. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Relevant information on the proposed technology is not included in the PoA-DD.	Closed IRL 30,85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<u>Corrective Action Request No.8</u> PP is requested to mention a few words in the PoA-DD that the technology implemented by the proposed activity is environmentally safe.	
Response	Revised in section E.1 of PoA DD as: As per the Environment Protection Act (EPA) dated 30 January 1997 and Environment Protection Regulation (EPR) dated 26 June 1997, 12 sectors are required to undertake environmental impact assessment studies. It should be noted here that documentation of the environmental impacts, Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) is not a regulatory requirement in Nepal for installation of the IWM. As described above referring to Environment Protection Act, 1997, EIA is not required for IWW project in Nepal. ¹ As per the eligibility criterion 5, the maximum energy output of IWM is 5 KW which is less than 1 MW so there is no need of conducting project EIA.	
Assessment Means of validation	A.4.2.1. mentions that IWM technology is hydro based technology and does not have any significant adverse impact on the environment. Furthermore, according to the Environment Protection Act (EPA), 1997 and Environment Protection Rules (EPR), 1997 of Nepal, induction of such small scale IWM does not require Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA). The same has been checked by the DOE with Environment	

¹ As per EPA and EPR (1997) (as amended on February 2, 2009), IEE is required for the hydropower projects from 1MW to 50 MW, while EIA is required for the project above 50MW. Projects less than 1MW do not require documentation of any impact assessment. (Source: EPA and EPR, 1997)

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Corrective Action Requests by the assessment team		
	Protection Act (EPA), 1997 and Environment Protection Rules (EPR), 1997 documents. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Relevant information on technology transfer is not included in the PoA-DD.	Closed IRL 48,58,85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.9</u></p> <p>Information about (initial) training and maintenance efforts at programme and project level has to be described in more detail. So far, only one sentence is provided “the managing entity will provide training or second trainers to parties involved in the monitoring plan to ensure accuracy and completeness of data recorded.”</p> <p>Further DOE Request:</p> <p>The DOE was informed during on-site visit that specific training will not be provided to field facilitators, pre-qualified manufacturers and central CRT/N staff. The PoA-DD has to be revised accordingly. PPs are requested to inform how is it ensured that field facilitators and CRT/N staff are competent enough (without any training) to follow their tasks.</p>	
Response	<p>It is revised under section C (Management System) of the PoA DD.</p> <p><u>Further PPs Response</u></p> <p>Under the new NRREP framework, there is provision of training to the different individuals involved in the IWM programme and the training and capacity development has been elaborated</p>	

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Corrective Action Requests by the assessment team		
	in Section C (Management System) of the PoA DD. Further, the IWM operation and maintenance training manuals and booklets have been published which can be instrumental for training. IWM User Manual (supporting document #38) and IWM Repair maintenance and gender awareness training (supporting document #39) have been provided to the DOE.	
Assessment Means of validation	<p>The documents “IWM repair and maintenance training manual” and “IWM repair, maintenance and gender awareness training” have been submitted to the DOE during on-site visit. PoA-DD has been revised and includes more detailed information about training for IWM owners, GoA members and Service Centre technicians.</p> <p>Further DOE Request:</p> <p>The DOE was informed during on-site visit that specific training will not be provided to field facilitators, pre-qualified manufacturers and central CRT/N staff. The PoA-DD has to be revised accordingly. PPs are requested to inform how is it ensured that field facilitators and CRT/N staff are competent enough (without any training) to follow their tasks.</p> <p>Conclusion:</p> <p>Revised CME manual has been validated to have proper training requirements. CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Transparent information on respective eligibility criteria needs to be presented in the PoA-DD.	Closed IRL 85,86
Requirement	Para 151 of project standard	

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Corrective Action Requests by the assessment team		
Corrective Action Request	<p><u>Corrective Action Request No.10</u></p> <p>1) Eligibility criterion 6 does not mention with whom AEPC has to sign the PoA liability indemnity agreement. PPs are requested to provide more clear and transparent information.</p> <p>2) Eligibility criterion 7 in the PoA-DD (version 01) has to inform whether the unique numbering system also refers to the respective CPA number; in other words is it possible to allocate with the unique number the IWM to the respective CPA? Besides, it has to be clarified whether there is no programme or company logo attached to one of the equipment parts of the IWM?</p> <p>3) Eligibility criterion 5 in the PoA-DD (version 01) mentions that “the IWMs disseminated under the CPA has to be of higher capacity and higher efficiency as mentioned in the PoA-DD.” This criterion is not clear and transparent enough. The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications have to be added.</p> <p>4) PPs are requested to refer eligibility criterion 2 (in the PoA-DD, version 01) to “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of Activities” (EB65, Annex 3) and “Guidelines for demonstrating additionality of microscale project activities”, EB63, Annex 23, paragraph 2 (a).</p> <p>5) PPs are requested to add eligibility criteria regarding</p> <ul style="list-style-type: none"> -conditions to check the start date of the CPA through documentary evidence; -PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis; -target group and distribution mechanisms (e.g. direct installation); -the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys; -Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance. <p>Further DOE Request:</p> <p>3) Supporting documentation for the chosen capacities of short shaft (1.35 kW) and long shaft (2.5 kW) has to be submitted to the DOE. Besides, PPs are requested to add specifications of technology/measure including the level and type of service, performance specifications includ-</p>	

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Corrective Action Requests by the assessment team		
	<p>ing compliance with testing/certifications.</p> <p>4) Footnote has to be updated (considering EB65, Annex 3).</p> <p>5) -Target group has to be revised. In other sections of the revised PoA-DD it is mentioned that only off-grid areas are eligible to be included. Further it has to be clarified what is meant by “new installers” and what is considered as “hilly area”.</p> <p>-Reference to sampling requirements has to be updated to “Standard for sampling and surveys” (EB65, Annex 02).</p> <p>-PPs are requested to provide an explanation (note or footnote) in section A.4.2.2. of the PoA-DD that eligibility criterion regarding conditions related to undertaking local stakeholder consultations and environmental impact analysis is not applicable since local stakeholder consultation and environmental impact analysis have been carried out at PoA level.</p>	
Response	<p>1) Liability indemnity agreement seems to be not required, thus this criterion has been taken out.</p> <p>2) Revised as below in criterion number 6 page 16. Logo of the company will not be mentioned on the tag, however the number will mention the name of the CME (AEPC). Each IWM to be included in the CPA will have a unique identification numbering system with the format AEPC/IWM/CPA#/IWM# as mentioned in section A.4.4.1. These identification numbers will prevent double counting of IWM in this PoA as well as in other IWM projects. Each IWM is tagged with unique identification number (AEPC/IWM/CPA#/IWM#) which contains the CPA reference.</p> <p>3) Revised as: The IWMs disseminated under the CPA has to be of higher capacity in the range of 1.35 -2.5 kW. Two type of IWM that is short shaft type and long shaft type to be considered.</p> <p>4) Revised as: The CPA will remain under the total installed capacity threshold of 5 MW. Relevant foot note is added for additional information.</p> <p>5) Added four additional eligibility criteria's covering mentioned points Applicable Eligibility criteria as per the EB 63, Annex 3 have been covered.</p> <p>Comment DOE: PPs are requested to provide detailed explanation which documentation was</p>	

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Corrective Action Requests by the assessment team		
	<p>submitted!</p> <p><u>Further PPs response</u></p> <ol style="list-style-type: none"> 3) To confirm the installed capacity of IWM (Long Shaft and Short Shaft) a study "Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill (supporting document #92)" is conducted. Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in whole document in PoA DD and ER calculation sheet. Further technical specification is added in A.6 of the PoA DD 4) Footnote has been updated as: paragraph 8, Annex 05 EB 74 of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for program of activities, version 2.1" which mentions that PoAs that will include one or more microscale projects as CPAs shall include eligibility criteria derived from the relevant requirements of the "Guidelines for demonstrating additionality of microscale project activities". 5) -The target group is defined as off-grid rural community of hills and mountains. IMW will be installed by existing TWM owners and/or new installer other than existing TWM owners. To make more clarity foot notes for off-grid area, new installer and hilly areas has been added. The target group has been revised in all the relevant section of PoA DD to remove inconsistency. Moreover, the means of confirmation of eligibility criteria for CPA inclusion has been added in the section B.2 of the revised POA-DD. <ul style="list-style-type: none"> - Sampling requirement under eligibility criteria number 9 is revised as: All CPAs will comply with the conditions related to sampling requirements for a PoA in accordance with the approved Guidelines for Sampling and Surveys for CDM project activities and POA (EB 74 Annex 6), refer to Appendix 5 for detailed sampling plan-In eligibility criteria #12 of section B.2 of the revised PoA DD the following has been added to confirm that individual CPA would be exempted for undergoing an environmental analysis and local 	

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Corrective Action Requests by the assessment team		
	<p>stakeholder consultation:</p> <p>“Stakeholder consultation has already been performed at PoA level so not required at CPA level. Environment Impact Assessment not required for IWM Projects²”</p>	
Assessment Means of validation	<p>1) Liability indemnity agreement is not relevant according to the discussion during on-site visit, thus this criterion has been taken out.</p> <p>2) It has been clarified that the unique number of each IWM will also refer to the CPA number. The unique identification number (in the format: “AEPC/IWM/CPA#/IWM#”) will be tagged at each IWM.</p> <p>5) -Eligibility criterion regarding the starting date of the CPA has been added. The starting date of each CPA will be verified by the database maintained by AEPC and also a signed letter from AEPC will be issued which will confirm the starting date of each CPA.</p> <p>-Eligibility criterion regarding conditions related to undertaking local stakeholder consultations and environmental impact analysis is not applicable as local stakeholder consultation and environmental impact analysis have been carried out at PoA level. However, see Further DOE Request.</p> <p>-eligibility criterion regarding conditions to provide an affirmation that funding from Annex I does not result in a diversion of ODA has been added. A letter issued by each funding agency(ies) will confirm that there will be no diversion of ODA.</p> <p>Further DOE Request:</p> <p>3) Supporting documentation for the chosen capacities of short shaft (1.35 kW) and long shaft (2.5 kW) has to be submitted to the DOE. Besides, PPs are requested to add specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications.</p> <p>4) Footnote has to be updated (considering EB65, Annex 3).</p> <p>5) -Target group has to be revised. In other sections of the revised PoA-DD it is mentioned that only off-grid areas are eligible to be included. Further it has to be clarified what is meant by</p>	

² As per EPA and EPR (1997) (as amended on February 2, 2009), IEE is required for the hydropower projects from 1MW to 50 MW, while EIA is required for the project above 50MW. Projects less than 1MW do not require documentation of any impact assessment. (Source: EPA and EPR, 1997)

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Corrective Action Requests by the assessment team		
	<p>“new installers” and what is considered as “hilly area”.</p> <p>-Reference to sampling requirements has to be updated to “Standard for sampling and surveys” (EB65, Annex 02).</p> <p>-PPs are requested to provide an explanation (note or footnote) in section A.4.2.2. of the PoA-DD that eligibility criterion regarding conditions related to undertaking local stakeholder consultations and environmental impact analysis is not applicable since local stakeholder consultation and environmental impact analysis have been carried out at PoA level.</p> <p><u>Conclusion:</u></p> <p>3) Supporting documents for technical specification has been validated; furthermore, revised PoA-DD has been validated to have eligibility criteria on technology, specification and output. It was also validated that CME has considered the conservative value of 1.39 kW for short shafts and 2.83 kW for long shaft IWMs as 97% of the of short shaft and long shaft is above these values.</p> <p>4) Revised PoA-DD has been validated to have correct footnote.</p> <p>5) Revised PoA-DD has been validated to have appropriate target group. And annex-5 has been validated for sampling requirements.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Transparent information on operational and management arrangements are not presented in the PoA-DD.	Closed IRL 58,85,86
Requirement	Para 31 of project standard	
Corrective Action	<u>Corrective Action Request No.11</u>	

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Corrective Action Requests by the assessment team		
Request	<p>PPs are requested to make the operational and management arrangements to the DOE available and provide information in the PoA-DD:</p> <ul style="list-style-type: none"> -Competencies of organisations involved in the IWM PoA have to be made available to the DOE -A diagram (flow chart) with the involved parties including their roles and responsibilities has to be added in order to provide a better overview for the reader about the roles/responsibilities of personnel involved. -Records of arrangements for training and capacity development for personnel -Procedures for technical review of inclusion of CPAs -Records and documentation control process for each CPA under the PoA, made available to the DOE at the time of request for inclusion of the CPA -Measures for continual improvements of the PoA management <p>Further DOE Request:</p> <p>The CAR has not been sufficiently addressed. PPs are requested to provide answer to each of the items mentioned on the left column and provide the relevant supporting documentation to each of the items.</p>	
Response	<p>Revised in section A.4.4</p> <p>Competency certificates of concerned responsible persons have been submitted to DoE</p> <p>The revised section A.4.4.1 covers technical procedure of inclusion of CPAs. Flow chart is added in the section.</p> <p>Refer to Task 1 for record keeping system for each CPA of the PoA,</p> <p><u>Further PPs Response</u></p> <ul style="list-style-type: none"> -Competency certificates of concerned responsible persons have been submitted to DoE during on site visit <p>(a) IRL# 58, Mr. Raju Laudari, Manager CCU/APEC</p>	

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Corrective Action Requests by the assessment team	
	<p>(b) IRL# 59, Mr. Sandeep Joshi, CMPO, CCU/AEPC</p> <p>(c) IRL# 60, Mr. Lumin K Shrestha, IWM Program Director, CRT/N</p> <p>(d) IRL# 61, Mr. Mahendra Chudal, IWM Program Manager, CRT/N</p> <p>(e) IRL# 62, Mr. Biplav Kafle, IWM Program Officer, CRT/N</p> <p>(f) IRL# 63, Mr. Milan Shrestha, Field Facilitator, CRT/N</p> <p>- a flow chart with roles and responsibilities of the involved parties has been included in Figure 6 in the PoA-DD.</p> <p>-Arrangements for training and capacity development of personnel and institution is included under training of A.4.4.2 in page 23 & 24</p> <p>- Procedures for technical review of inclusion of CPAs have been added in the PoA-DD as under in Task 1, in Section C (Management System). "5. Procedure for technical review of inclusion of CPAs"</p> <ol style="list-style-type: none"> PoA concerned person/team of CME will check the new CPA's thoroughly as per the CPA inclusion eligibility criteria mentioned in the section A.4.2.2 complying the available guideline of Annex 3 of EB 65 (http://cdm.unfccc.int/filestorage/E/6/T/E6TY7DMI28WGCUV5J0K3LAOHBQ9RFN/eb65_repan03.pdf?t=TIh8bTJjaDY0fDBheJdiqeT-dPJjKP24dVy) A small report of CPA eligibility will be then submitted to higher responsible authority of CME for checking, discussion and approval. Any issues raised by the CME authority will be addressed appropriately while finalising about CPA eligibility for inclusion into the PoA. <p>- Record and documentation control process for each CPA under the POA is included in Task 1 under Section C (Management System).</p>

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Corrective Action Requests by the assessment team		
	<p>- Measures for continual improvements of the PoA management has been added in the PoA-DD as under in Task 2, Section C (Management System)</p> <p>PP will keep record of CAR/CLs raised by DoE during each CPA addition process and further these issues will be assessed and accordingly process of CPA inclusion will be improved.</p>	
Assessment Means of validation	<p>Further DOE Request:</p> <p>The CAR has not been sufficiently addressed. PPs are requested to provide answer to each of the items mentioned on the left column and provide the relevant supporting documentation to each of the items.</p> <p>Conclusion:</p> <p>CME manual has been validated for detailed assessment. The same has been validated successfully in line with requirements.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Transparent information on abbreviations, process of data recording are not available in the PoA-DD.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.12</u></p> <p>In A.4.4.1:</p> <ol style="list-style-type: none"> 1) Explain the abbreviations VDC, Ward/Tole. 2) Specify which kind of “details of IWMs installed” will be recorded. 3) Explain what data of “destruction of TWMs” will be recorded. 	

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Corrective Action Requests by the assessment team		
	<p>Further DOE Request:</p> <p>The revised PoA-DD mentions that “replaced TWM parts will not be used at any other location”. Further on, it is mentioned that “Since this is a renewable energy based technology, maintenance of destruction records is not required since it will not generate the GHG emissions if used at different locations.” There seems to be a contradiction and it is not clear whether replaced TWM parts will be finally used at different locations or not. PPs have to clarify.</p>	
Response	<ol style="list-style-type: none"> 1) Explained accordingly as “Village Development Committee (VDC)” and see footnote 8 (A ward is a subdivision of a municipality or VDC. Nine wards make up a VDC; if more than nine wards that become a municipality. A tole is a specific community area in a VDC or municipality. There may be more than one tole in certain ward of a VDC/municipality) 2) Added as The details of the IWM installed will be recorded by collecting the following information: miller's name, unique identification number, district, VDC, ward number, village name, name of the river, type of IWM, installation date and manufacturer's name. 3) Added in section A.4.4.1 under task 1 point number 4 Replaced TWM parts will not be used at any other location. Since this is a renewable energy based technology, maintenance of destruction records is not required as it will not generate GHG emissions. <p><u>Further PPs response</u></p> <p>Regarding replacement parts of TWM it is revised under Task 1 point number 4 as follow:</p> <p>Replaced TWM parts will not be used at any other location as only wooden shaft and runner are replaced. Hence, maintenance of destruction records is not required.</p>	

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Corrective Action Requests by the assessment team		
Assessment Means of validation	<p>1) It has been clarified that VDC is a Village Development Committee. Ward/Tole has been explained in a footnote in the revised PoA-DD.</p> <p>2) Details have been provided which information for IWMs installed makes part of the database.</p> <p>Further DOE Request:</p> <p>The revised PoA-DD mentions that “replaced TWM parts will not be used at any other location”. Further on, it is mentioned that “Since this is a renewable energy based technology, maintenance of destruction records is not required since it will not generate the GHG emissions if used at different locations.” There seems to be a contradiction and it is not clear whether replaced TWM parts will be finally used at different locations or not. PPs have to clarify.</p> <p>Conclusion:</p> <p>Revised PoA-DD has been validated to clarify the inconsistency. Hence it is accepted and this issue is closed.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Details on double counting are not indicated in the PoA-DD.	Closed IRL 85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.13</u></p> <p>It has to be more transparently described in A.4.4.1. by which means double counting will be avoided.</p>	
Response	<p>Added as below in section C (Management System) of the revised PoA DD</p> <p>The IWMs installed under IWM Programme are listed in AEPC database along with unique identification number (AEPC-IWM-XXX-XXXX). These IWM units will not be ac-</p>	

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Corrective Action Requests by the assessment team		
	<p>counted in any other CDM project. The unique identification number of each installed IWM will ensure that each installed IWM are not counted double.</p> <p>AEPC would also cross-check with the UNFCCC data available on registered IWM projects from Nepal to ensure that IWMs already covered under the CPAs is not a part of another PoA and is not a registered CDM project.</p> <p>Double counting is avoided by giving each IWM a unique identification number. The disseminated IWM can be traced to one specific CPA to avoid double counting through its unique identification number. One separate hard copy file is created for each IWM disseminated.</p>	
Assessment Means of validation	<p>Information has been provided in A.4.4.1. how double counting will be avoided. A unique identification number with the format "AEPC/IWM/CPA#/IWM#" will clearly identify each IWM and clearly show to which CPA the respective IWM belongs to. A check with UNFCCC website will additionally ensure that CPAs included under the PoA will not be part of another PoA or being registered as a stand-alone CDM project.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on debundling is not present in the PoA-DD.	Closed IRL 4,85,86
Requirement	Para 31 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.14</u></p> <p>PPs are requested to inform about debundling in A.4.4.1. as proper item as per the PoA-form</p>	

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Corrective Action Requests by the assessment team		
	(A.4.4.1., (iii)) and not mixed up with item (ii) double counting.	
Response	<p>Added as</p> <p>The proposed project is not a de-bundled component of a large-scale CDM project activity. The paragraph 10 of Guidelines on assessment of debundling for SSC project activities (Version 03, EB54) states that " <i>If each of the independent subsystems/measures (e.g., biogas digester, solar home system) included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology applied, then that CPA of PoA is exempted from performing de-bundling check i.e., considering as not being a de-bundled component of a large scale activity.</i>"</p> <p>Each independent measure of the CPA is installation of IWMs of max 3.0 KW installed capacity which is far less than 1% of 5 MW limit applicable for microscale projects as per guideline for demonstrating additionality of microscale project activities EB63, Annex 23, paragraph 2 (a).</p>	
Assessment Means of validation	<p>Debundling issue has been mentioned as separate item as requested. However, debundling is not an issue (as per EB54, Annex 13, version 03) as none of the subsystems is larger than 1% of the threshold (5 MW) defined by the Guidelines for demonstrating additionality of microscale project activities (EB63, Annex 23, version 03).</p> <p>Maximal capacity of 3.0 kW of IWM has been evidenced by GTZ report.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL

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Corrective Action Requests by the assessment team		
Issue	Appropriate information on individual agreement signed with IWM users is not presented in the PoA-DD.	Closed IRL 85,86
Requirement	Para 34 of project standard	
Corrective Action Request	<u>Corrective Action Request No.15</u> Information is provided in A.4.4.1. that individual IWM users sign an agreement to ensure the transfer of all rights/benefits etc regarding emission reductions to AEPC. However, no information is provided about the provisions to ensure that those operating the CPA (CPA implementers) are aware of and have agreed that their activity is being subscribed to the PoA. Or is the intention that AEPC will be the CPA implementer for all CPAs? PPs are requested to add information.	
Response	It has been mentioned in section A.4.4 of the PoA-DD that "AEPC would implement, coordinate and manage the project and PoA activity. AEPC is the implementer of all CPAs. CME declaration for this is provided in supporting document #53 (Implementing Agency).	
Assessment Means of validation	Further DOE Request: Information has to be provided that AEPC (CME) is the implementer of all CPAs as it was communicated during on-site visit. Conclusion: Revised PoA-DD has been validated to indicate that AEPC shall be the CPA implementer.	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on sampling plan is not presented in the PoA-DD.	Closed IRL 85,86
Requirement	Para 41 of project standard	

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Corrective Action Requests by the assessment team		
Corrective Action Request	<p><u>Corrective Action Request No.16</u></p> <p>Regarding A.4.4.2:</p> <ol style="list-style-type: none"> 1) PPs are requested to indicate in a transparent way what method will be adopted for the verification of the CPA(s) – sampling or verification of each CPA. In the case that each CPA is verified: PPs are requested to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA. 2) Title including version of the sampling guideline has to be mentioned. 3) A sampling plan as per EB50, Annex 30 has to be elaborated with the following steps: - sampling objective, -field measurement objectives and data to be collected, -target population and sampling frame, -sample method, -desired precision/expected variance and sample size, -procedures for administering data collection and minimizing non-sampling errors, -implementation. 4) Confidence level has to be indicated. 5) PPs are requested to provide supporting documentation for the statement that only the age has an influence on the representativeness and no other influences like different climatic conditions, different investment climate etc. 	
Response	<ol style="list-style-type: none"> 1. Verification of all CPAs will be carried out and ex post monitoring survey will be conducted. No double accounting will occur as mentioned in task 2 of A.4.4.1 2. Included as mentioned 3. Detailed sampling plan is included as Annex 5 to PoA-DD 4. Confidence level of 90% has been mentioned in the A.4.4.2 section. 5. Geographical sampling will be used to cover all the geographical clusters which will be representative of the total population. <p><u>Further PP response</u></p> <p>The sampling section has been revised as per EB 69, Annex 5. The detail of sampling is mentioned in <u>appendix 5</u> (Further background information on the monitoring plan) of the revised PoA DD.</p>	

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Corrective Action Requests by the assessment team		
Assessment Means of validation	<p>Further DOE Request:</p> <p>PPs are requested to update the complete sampling section as per latest guidelines following the requirements of the “Standard for sampling and surveys for CDM project activities and PoAs”.</p> <p>Further, it has to be explained how the status of verification can be determined any time for each CPA.</p> <p>Conclusion:</p> <p>Revised PoA-DD has been validated to have appropriate sampling plan in line with EB requirements. Hence it is accepted and this issue is closed.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on start date is not presented in the PoA-DD.	Closed IRL 85,86
Requirement	Para 159 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.17</u></p> <p>The event for the PoA starting date has to be mentioned.</p>	
Response	The starting date of the PoA is the date of start of validation of the project i.e. the start date of Global Stakeholder Consultation Process (GSP). The GSP date for the project is 05/10/2011 which is considered as the start date of the PoA. Revised accordingly the date as 05/10/2011	
Assessment	Starting date has been defined as 05/10/2011, the commencement of validation, i.e. GSP up-	

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Corrective Action Requests by the assessment team		
Means of validation	loading. This is reasonable and accepted by the DOE. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	No information on lifetime is presented in the PoA-DD.	Closed IRL 50,85,86
Requirement	Para 63 of project standard	
Corrective Action Request	<u>Corrective Action Request No.18</u> The typical lifetime of a project IWM is not presented in the PoA-DD. Further on it is not explained what happens after the end of the lifetime of an IWM. PPs are requested to add information in the PoA-DD.	
Response	Following sentence has been added in B.2 The typical life of the IWM is 10 years. After every 10 years installed IWM will be checked for refurbishment /modification for continued operation for next 10 years (long shaft or short shaft) and continue for GHG emission reduction. The IWM will not be continued in respective CPAs, if it is not refurbished or modified as per the necessary requirement. As a supporting document to ensure the life of the IWM refer the study report "Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill", supporting document # 92	
Assessment Means of validation	Study report 'Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill' has been validated for the life time of 10 years mentioned in the PoA-DD. CAR is closed. <input checked="" type="checkbox"/>	

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Corrective Action Requests by the assessment team		
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on environmental analysis is not presented in the PoA-DD	Closed IRL 30,31,85,86
Requirement	Para 63 of project standard	
Corrective Action Request	<u>Corrective Action Request No.19</u> Justification for doing the environmental analysis at PoA level (instead of CPA level) is not plausible enough. Stronger argumentation has to be provided.	
Response	The text of C.1.2 is revised as under As per the Environment Protection Act (EPA) dated 30 January 1997 and Environment Protection Rules (EPR) dated 26 June 1997, 12 sectors are required to undertake environmental impact assessment studies. It should be noted here that documentation of the environmental impacts, Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) is not a regulatory requirement in Nepal for installation of the IWM. As described above referring to Environment Protection Act, 1997, EIA is not required for IWW project in Nepal. The implementation of IWM does not result in any significant negative environmental impact; on the contrary, it brings several benefits to the environment like- usage of renewable energy, time saving during processing, and drudgery of rural people reduced by using IWM. Since IWM is renewable energy based technologies, it will not have any adverse impact on human and environment. Foot note provided - As per EPA and EPR (1997), IEE is required for the hydropower projects from 1MW to 50 MW, while EIA is required for the project above 50MW. Projects less than 1MW do not require documentation of any impact assessment. (Source: EPA and EPR, 1997). As there will be no variation in the IWM basic technology at CPA level and no negative impacts	

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Corrective Action Requests by the assessment team		
	are expected from the implementation of the IWM project, Environmental Analysis will not be required at CPA level.	
Assessment Means of validation	According to the environmental legislation in Nepal (Environment Protection Act dated 30 January 1997 and Environment Protection Rules dated 26 June 1997) it is not necessary for IWM projects to undertake any environmental impact assessment or Initial Environmental Examination (IEE). (The implementation of IWM does not result in any significant negative environmental impact, on the contrary, it brings several benefits to the environment (like use of renewable energy, time saving for rural people). Section C.1. of the PoA-DD mentions some of the most important positive impacts. The analysis of the impacts was carried out at PoA level, as the impacts will not be different at CPA level, no variation in the IWM technology will occur to the one described in section A.4.2.1. of the PoA-DD and no negative impacts are expected from the implementation of IWM. This was validated by minutes of meeting of the local stakeholder consultation meeting (IRL 33) and interviews carried out by the DOE with water mill users during field visits confirming that the implementation of IWM results in only positive impacts. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on stakeholder letters is not provided in the PoA-DD	Closed IRL 32,33,34,35,36,85,86
Requirement	Para 65 of project standard	
Corrective Action Request	<u>Corrective Action Request No.20</u> Some of the comments and PP responses mentioned in the minutes of meeting are not indicated in section D.4. of the PoA-DD. PPs are requested to add those comments/responses	

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Corrective Action Requests by the assessment team			
	which are missing.		
Response	The section D.4 of the POA DD has been revised to incorporate the comments and PP responses as per the minutes of meeting. See below		
	S.N	Stakeholder queries/concerns	Response of PoA CME and other concerned experts
	9	What would be the additional role and responsibilities of owners and other stakeholders after registering the IWM program as CDM?	The continuous operation of the IWM is a must for receiving the carbon revenue from the IWM CDM project. The user would thus be required to operate the IWM on a continuous basis. In addition to this, the IWM owner has to provide the emission reduction right transfer to AEPC for enabling AEPC to prepare CDM related documents such as the project design document, emission reduction calculation, monitoring reports etc.
	10	What are the additional benefits to owners and other stakeholders after registering the IWM program as CDM?	AEPC is currently preparing the Carbon Revenue Utilization Guideline which discusses about the utilization of carbon revenue earned by different renewable technologies. In this guideline, IWM has been identified as one of the technology that is eligible for earning carbon revenue. It is proposed that part of the revenue received from IWM CDM POA will be utilized for providing subsidy to new users, part of the revenue will be utilized for the user benefit plan, preparation of the CDM related documents, validation, verification etc. The 2% of the revenue received will also go the DNA. The exact proportion of the benefits will be finalized and made available after the approval of Carbon Revenue Utilization Guideline from cabinet.
Assessment Means of validation	All comments and PP responses as per the the minutes of meeting are now indicated in D.4. of the PoA-DD. The same has been verified with the minutes of meeting.		

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Corrective Action Requests by the assessment team		
	CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on stakeholder letters is not provided in the PoA-DD	Closed IRL 33,34,35,36,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.21</u> PPs are requested to make clear in D.2. whether stakeholder letters were sent by Email, postal or door to door canvassing.	
Response	The sample copy of the individual letter and the newspaper details have already been shared with the DOE. Explained as below: The invitations for the stakeholder meeting were sent to the relevant stakeholders through individual letters distributed by door-to-door canvassing. The notice regarding the stakeholder consultation was also published in the local news paper "Lokmanch Daily" dated 03 April 2011.	
Assessment Means of validation	It has been clarified in the PoA-DD that stakeholder letters were distributed by door to door canvassing. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on applicability criteria is required.	Closed IRL 49,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.22</u></p> <p>In E.2., 1st applicability criteria item in “project activity applicability”, it is mentioned that “project activity is an installation of IWM” however nothing is indicated whether/that in the absence of those IWM the mechanical energy would have been provided by fossil fuel based energy (diesel based mills). PPs are requested to add and provide supporting documentation for the base-line scenario (diesel based mills).</p> <p>Further DOE Request:</p> <p>The final baseline study report and/or other supporting documentation has to be submitted to the DOE to confirm the baseline scenario as described in the PoA-DD.</p> <p>According to the presented documentation and interviews carried out by the DOE during on-site field visits, the DOE cannot confirm that “in the absence of those IWM the mechanical energy would have been provided by fossil fuel based energy” (diesel based mills) and that the baseline scenario is the one as described in the PoA-DD. Besides, it could not be shown yet that the baseline is in accordance with the applied methodology.</p>	
Response	<p>Revised accordingly:</p> <p>Project activity is an installation of Improved Water Mill (IWM) which will avoid installation of diesel mills. In the absence of those IWM the mechanical energy for the users would be provided by fossil fuel (diesel) based mills.</p> <p>As discussed, the baseline data collection is in final stage and final baseline study will be submitted to DoE in 4 weeks time.</p>	

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Corrective Action Requests by the assessment team		
	<p><u>Further PPs response</u></p> <p><u>To confirm the baseline</u> i.e. .Project activity is an installation of Improved Water Mill (IWM) which will avoid installation of diesel mills in the absence of those IWM the mechanical energy for the users would be provided by fossil fuel (diesel) based mills is conducted after field visit of DoE.</p> <p>The field visit for the IWM programme of activities conducted on 3rd and 4th May 2013 has confirmed that the baseline that in absence of the PoA would be fossil fuel based energy. The baseline study dated May 2012 is submitted to DoE.</p>	
Assessment Means of validation	<p>Further DOE Request:</p> <p>The final baseline study report and/or other supporting documentation has to be submitted to the DOE to confirm the baseline scenario as described in the PoA-DD.</p> <p>According to the presented documentation and interviews carried out by the DOE during on-site field visits, the DOE cannot confirm that “in the absence of those IWM the mechanical energy would have been provided by fossil fuel based energy” (diesel based mills) and that the baseline scenario is the one as described in the PoA-DD. Besides, it could not be shown yet that the baseline is in accordance with the applied methodology.</p> <p>Conclusion:</p> <p>A letter from Government of Nepal has been submitted and validated for the baseline scenario, it has been validated that IWMs avoid or displace diesel water mills.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on applicability criteria is required.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.23</u></p> <p>The PoA-DD mentions that for each CPA the upper limit is considered to be 5 MW (as per the “Guidelines for demonstrating additionality of microscale project activities”). It has to be further mentioned in column “project activity applicability” that the 5 MW are clearly below the 15 MW indicated in the methodology. Besides, the justification of the size of a diesel-based generator (that would be required to provide the same mechanical energy than the IWM) is not indicated.</p>	
Response	<p><u>Further PPs response:</u></p> <p>Added as below in table E.2 of the PoA-DD point two under Project activity applicability. Justification column</p> <p>The total installed capacity of individual CPAs covered under this PoA will be less than 5 MW, to meet microscale project activity criteria (EB63, Annex 23, Version 01).</p> <p>The IWM installation will prevent installation of DMs in the future. At present, DMs of installed capacity 10 horsepower (7.5 KW) to 16 horsepower (11.9 KW) are widely used in Nepal</p>	
Assessment Means of validation	<p><u>Further DOE Request:</u></p> <p>CAR has not been addressed yet. PP is requested to respond the CAR in the left column.</p> <p><u>Conclusion:</u></p> <p>Revised PoA-DD has been validated to appropriate eligibility criteria for the project activity – transparently indicating that project activity will be less than 5 MW or 3000 IWMs.</p> <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on applicability criteria is required.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.24</u> The justification in column “project activity applicability” (criterion 04) has to be revised. The justification has to refer to “individual CPAs” instead of “individual IWMs” and the threshold is 5 MW instead of 15 MW for each CPA.	
Response	The justification in column project activity applicability of criteria is revised as: The total installed capacity of individual CPAs covered under this PoA will be less than 5 MW. Project activity only covers renewable energy component.	
Assessment Means of validation	Conclusion: Revised PoA-DD has been validated to appropriate eligibility criteria for the project activity – transparently indicating that project activity will be less than 5 MW or 3000 IWMs. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on applicability criteria is required.	Closed IRL 1,85,86
Requirement	Para 38 of project standard	

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Corrective Action Requests by the assessment team		
Corrective Action Request	<p><u>Corrective Action Request No.25</u></p> <p>Applicability criterion 5 in E.2. of the PoA-DD has to refer the limit of 5 MW not to the PoA but to each CPA.</p>	
Response	<p>Project activity fits under Case 2, Replacing old units for more efficient units. And revised as below</p> <p>The total installed capacity of more efficient units (IWMs) covered under this CPAs of this POAs will be less than 5 MW.</p> <p><u>Further PPs response:</u></p> <p>Applicability criteria 5 in section B.2 of the revised PoA DD has been revised to encompass the “new users” as stipulated in case 2 of paragraph 05 of the applied methodology (AMS I B, version 10)</p> <p>The total installed capacity after adding the new units (case 1) and installed capacity of more efficient units (IWMs) (case 2) covered under the each CPAs of this POAs will be less than 5 MW.</p>	
Assessment Means of validation	<p><u>Further DOE Request:</u></p> <p>-In section eligibility criteria also “new users” are considered in the target group. PPs are requested to justify in the PoA-DD why case 1 of paragraph 5 of the applied methodology is not applicable.</p> <p><u>Conclusion:</u></p> <p>Eligibility criteria has been revised to indicate respective applicability criteria as well. Hence It was validated that applicability criteria shall be verified using the eligibility criteria for the CPAs. CAR is closed. ☑</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on project boundary is required.	Closed IRL 1,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.26</u> PPs are requested to explain more transparently in E.3. the boundary as the “physical and geographical site of the renewable energy technology (IWM) and the equipment that uses the mechanical energy produced”.	
Response	Revised as suggested: physical and geographical site of the renewable energy technology (IWM) and the equipment that uses the mechanical energy produced	
Assessment Means of validation	The definition of boundary has been revised and is in accordance with the applied methodology. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on project boundary is required.	Closed IRL 00,85,86
Requirement	Para 38 of project standard	
Corrective Action	<u>Corrective Action Request No.27</u> Regarding sources/gases in project boundary:	

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Corrective Action Requests by the assessment team		
Request	<ol style="list-style-type: none"> 1) The wording in “source/baseline” has to be revised to “Operation of diesel based mill to generate mechanical power which will be avoided due to the project activity”. 2) The wording in justification/explanation/baseline of “maintaining conservatives” is not clear. PPs are requested to revise. 	
Response	<p>Revised accordingly</p> <ol style="list-style-type: none"> 1) Operation of diesel based mill to generate mechanical power which will be avoided due to the project activity 2) Removed Also, maintaining conservatives. 	
Assessment Means of validation	<ol style="list-style-type: none"> 1) Wording has been revised as requested. 2) Unclear part has been removed. <p>CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on baseline scenario is required.	Closed IRL 00,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.28</u></p> <p>Formation (items a,b,c,d) in E.4. has to be revised if baseline scenario alternatives are maintained (the baseline scenario is pre-defined by the methodology, thus the methodology does not necessarily require the discussion of baseline scenario alternatives). It is mentioned that “three alternative scenarios are possible to the national IWM project” however in the following 5 items (a to e) are mentioned.</p>	

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Corrective Action Requests by the assessment team		
Response	Revised accordingly	
Assessment Means of validation	Format has been revised. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate information on baseline scenario is required.	Closed IRL 69,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.29</u></p> <p>1) Regarding the alternative project activity without CDM: PP argues that “due to lack of funding and strong institutional support for installation of IWMs with replacement of TWMs is not possible”. However, Nepalese government supports the implementation of IWMs with subsidies and gives institutional support, thus argumentation is not convincing. PPs are requested to revise.</p> <p>2) The POA-DD (section E.4.) has to confirm that the identified baseline scenario is the same as the one indicated in the methodology.</p> <p><u>Further DOE Request:</u></p> <p>1) See Further DOE Request of CAR of A.2.2.</p> <p>2) See Further DOE Request of CAR in E.2.2.</p>	
Response	1) Final proposal December 2001 regarding Program Support to Nepal’s Renewable Energy Sector planned to provide sector support to improved water mills. The sector support program was planned for the period of 2002 to 2009, although the budget was allocated from DGIS/SNV	

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Corrective Action Requests by the assessment team

and the government for six years until 2007 (see document “final proposal December 2001”, page V). The program was initiated in 2003 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009, page 1).

DGIS allocated 0.739 million USD and the government allocated 0.245 million USD for IWM promotion (see document “final proposal December 2001”, page V).

The program was limited to seven districts in 2006 due to financial constraints and only 2388 IWMs were installed by 2006 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, page 1).

The program districts were extended to 16 districts after the Mid Term Review recommendation in 2006 to convert Euro 0.308 million from credit to subsidy with some replacement of old districts by new one from January 2007 until early 2009. 0.637 million USD was allocated to implement the IWM program during 2007-2009 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, page 22).

DGIS/SNV support was expected until 2009 (see document “Improved Water Mill Programme Plan, January 2007 to January 2009”, cover page) and it was extended without additional budget until 2010 (Document for extension is missing). The program slowed down and reduced its activities in 2010 due to lack of sufficient budget, so the IWM installation reduced in 2010 to 556 IWM (compared to 1073 IWM in 2009) (see CRTN annual reports 2009 and 2010).

DGIS/SNV decided to stop supporting the promotion of IWM in December 2010 (Document for stop is missing).

The Norwegian government through ESAP program started support for the promotion of IWM since January 2011 (see document “contract for the operation of AEPC/ESAP January 1st to June 2011 activities”). This support from Norwegian government will end in March 2012 with the end of ESAP II programme. (see agreement between Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010 and Joint Financing arrangement between ministry of foreign affairs of Denmark, ministry of foreign affairs of Norway and government of Nepal and Energy Sector Assistance Programme (Phase II) (ESAP- II) Programme Documents, Vol I.).

There is no further funding commitment from donors for installation of IWM. In this context, CDM revenue is very crucial to meet the funding gap to ensure continuation of the program in off grid areas of the country.

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Corrective Action Requests by the assessment team		
	<p>2) The revision of section E.4 confirms that the identified baseline scenario is the same as indicated in the methodology</p> <p><u>Further PP response</u></p> <p>1) “final proposal December 2001”, page V is provided in supporting document # 82 “contract for the operation of AEPC/ESAP” January 1st to June 2011 activities, is provided in supporting document #84 “agreement between Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010,” is provided in supporting document # 83</p> <p>2) <u>To confirm the baseline</u> i.e. .Project activity is an installation of Improved Water Mill (IWM) which will avoid installation of diesel mills. In the absence of those IWM the mechanical energy for the users would be provided by fossil fuel (diesel) based mills is conducted after field visit of DoE. The baseline study dated May 2012 is submitted to DoE.</p>	
Assessment Means of validation	<p>3) See Further DOE Request of CAR of A.2.2. See Further DOE Request of CAR in E.2.2.</p> <p>Conclusion: Respective CAR has been closed and hence this CAR is also closed.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Latest version of applicable guidelines are not included in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.30</u> The version of “Guidelines for demonstrating additionality of microscale project activities” has to be updated.	
Response	Revised accordingly as below “Guidelines for demonstrating additionality of microscale project activities” (version 03), Annex 23, EB63	
Assessment Means of validation	The version of the “Guidelines for demonstrating additionality of microscale project activities” has been updated to version 03 (EB63, Annex 23). Furthermore, it has been again updated to latest small scale additionality guideline used by the CME. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate details in eligibility are not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.31</u> E.6.1. has to explain the procedures as per paragraphs 7, 8, 9 and 10 of the methodology and indicate the chosen option (if offered by the methodology) and explain if one of the paragraphs	

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Corrective Action Requests by the assessment team		
	is not applicable to the programme and why.	
Response	Added in Section E.6.1 in page 35	
Assessment Means of validation	The procedures as per paragraphs 7, 8, 9 and 10 of the methodology has been explained (as requested by the DOE) in E.6.1. of the revised PoA-DD. It has been indicated that baseline emissions are calculated as per paragraph 7(a) of the methodology and that paragraphs 8 and 9 are not applicable and that there is no leakage as per paragraph 10 of the methodology. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.32</u></p> <p>1) In Figure 4: It is not clear why the “baseline avoidance of energy consumption of number of diesel TWM of 0.5 kW capacity” is mentioned once the difference between IWM capacity and TWM capacity is considered as baseline capacity for emission reduction calculation. PPs are requested to revise.</p> <p>2) In Figure 04 the capacity of IWMs is mentioned as 1.5 and 2 kW, in section E.6.3. however as average values of 1.35 for small shafts and average value of 2.25 for large shaft IWMs. Further A.4.2.1. mentions “IWMs of installed capacity of ranging from 0.65 kW to 3 kW”. PPs are requested to resolve inconsistencies.</p> <p>3) What does the parameter “ODi” in equation (2) stands for? No explanation has been provided.</p>	

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Corrective Action Requests by the assessment team		
Response	<p>1) Revised as “Consumption of diesel in diesel mills”</p> <p>2) The range of IWMs to be installed will be 1.0 kW to 3.0 kW (IWM program year book of AEPC/CRTN/SNV). The average capacity considered as 1.35 kW for short shaft and 2.5 kW for long shaft IWMs. The relevant sections are revised accordingly. Reference CRTN data base.</p> <p>3) This is typo error and is removed</p> <p><u>Further PP response</u></p> <p>2) To resolve the inconsistency regarding the installed capacity of IWM (Long Shaft and Short Shaft) a study Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill is conducted. Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in the whole PoD DD and ER calculation sheet to remove inconsistency. The study report is submitted for reference, in supporting document #92.</p>	
Assessment Means of validation	<p>1) Correction has been carried out.</p> <p>3) Parameter “ODi” has been removed.</p> <p>Further DOE Request:</p> <p>2) See Further DOE Request of CAR 10.</p> <p>Conclusion:</p> <p>Respective CAR has been closed, hence this CAR is also successfully closed.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.33</u></p> <p>The installed capacity of IWM has to be taken out from E.6.3. as it is a parameter to be monitored. As far as the DOE understands as per the information given in the PoA-DD, installed capacity of IWM is not fixed and can vary from CPA to CPA and within a CPA.</p>	
Response	<p>The parameter "installed capacity of IWM" is a fixed parameter, ex ante. It will not be monitored.</p> <p>Supporting document as CRTN data base covering statistical information of installed IWMs will be provided.</p> <p><u>Further PP response</u></p> <p>1) To confirm the installed capacity of IWM (Long Shaft and Short Shaft) a study Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill is conducted. Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in whole document in PoD DD and ER calculation sheet. The study report is submitted as supporting document #92.</p> <p>2) IWM operates 15 hours on average per day, 12.5% down time and 75% loading factor. Therefore the average loading factor 41.02% load factor is based on the study report "Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill: Report is submitted to DoE, supporting document # 92.</p> <p>Now applied value 0.41 is considered and same has been considered in ER calculation of the 1st CPA.</p>	
Assessment Means of validation	<p>Further DOE Request:</p> <p>1) Supporting documentation for the installed capacity of IWM used as ex-ante value has to be</p>	

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Corrective Action Requests by the assessment team		
	<p>submitted to the DOE.</p> <p>Conservatism has to be ensured.</p> <p>2) Section E.6.3. added the parameter “Average Loading of IWM” (Li). However, the applied value of 0.5 is not substantiated by supporting documentation. Besides, this average loading of IWM has not been considered in the ER calculation of the 1st CPA.</p> <p>Conclusion:</p> <p>Study done by Energy development services has been submitted and validated. It has been validated that 97% of the installed LS IWM are above 2.83 kW and also 97% of the installed SS IWM are above 1.39 kW. Hence it has been validated as a conservative measure to consider 2.83 kw & 1.39 kW for LS & SS IWM respectively. Hence it is accepted.</p> <p>Detailed calculation of average loading factor has been validated and is acceptable.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.34</u></p> <p>Regarding the parameter “Emission coefficient for diesel”:</p> <p>a) Data source:</p> <ul style="list-style-type: none"> -version of AMS I.F has to be added; -According to the “actual” it is not clear whether the emissions factor is finally an ex-ante default value or whether it will be monitored due to possible change in load factors. PPs are requested 	

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Corrective Action Requests by the assessment team		
	<p>to provide more transparent information.</p> <p>b) Value applied: The applied load factor of 1.4 seems to be conservative if assuming that the operation hours per day and operation days per year indicated in the ER excel calculation file (1st CPA) are plausible. In order to validate those figures, PPs are requested to submit supporting documentation to the validation team.</p>	
Response	<p>a) The version of AMS 1.F is added which is version 02 and “actual” is deleted which is typo</p> <p>b) The diesel equipment emission factor has been revised as 1.2 kgCO₂e/kWh, the most conservative possible figure (with highest loading of 100%) as per AMS I.F table I.F.1. In this view, no supporting documentation will be required. Emission reduction calculations are revised accordingly.</p> <p><u>Further PPs Response</u></p> <p>b) AMS I.F table I.F.1 version 2 and AMS I.D version 15 table I.D.I is referred in the respective section</p> <p>- Revised emission reduction calculation sheet of the 1st CPA has been submitted to the DOE considering all the applied data.</p>	
Assessment Means of validation	<p>a) Version 02 of AMS I.F was added. “Actual” was taken out. The emissions factor is an ex-ante default value.</p> <p>Further DOE Request:</p> <p>b) The application of an emission factor of 1.2 kgCO₂e/kWh by assuming a load factor of 100% is considered as conservative and is thus accepted by the DOE. The applied value is in accordance with AMS-I.F, version 02, table I.F.1. (the same table is provided in AMS-I.D, version 15, table I.D.1 to which the methodology AMS-I.B refers to).</p> <p>-For clarification, PPs are requested to refer as well to AMS-I.D, version 15, table I.D.1 the methodology AMS-I.B refers to.</p> <p>-Revised emission reduction calculation sheet of the 1st CPA has to be submitted to the DOE.</p>	

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Corrective Action Requests by the assessment team		
	Conclusion: Revised emission reduction calculation sheet has been validated and accepted.	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.35</u> 1) PPs are requested to add in E.7.1. the parameters “IWM installed capacity” and “Monitoring of scrapping of replaced equipment and check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other”. 2) Regarding the parameters to be monitored mentioned in E.7.1.: a) QA/QC procedures have to be described. b) Measurement methods have to be described (see also CAR in A.4.4.6. and CAR in E.7.2.3.).	
Response	1) The scrapping of equipments (TWM parts) will not be recorded as this is the renewable energy technology. Further, the Installed capacity parameter has been added in section E.6.3 as ex ante fixed. 2) a) QA/QC procedures has been described for the monitored parameters and b) it is added	

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Corrective Action Requests by the assessment team		
	<p>Further PP response</p> <p>A study Determining Capacity of Long Shaft and Short Shaft of Improved Water Mill is conducted after DOE field visit to confirm the installed capacity of IWM (Long Shaft and Short Shaft). Now revised average capacity of short shaft IWM is 1.39 kW and average capacity of long shaft IWM is 2.83 kW. The revised capacity is applied in whole document in PoD DD and ER calculation sheet. The study report is submitted to DoE as supporting document # 92.</p> <p>2) The QA/QC procedures have been described in the monitored section.</p> <p>All the three parameters $Q_{T,i}$, $Q_{OP,i}$ and $Q_{NW,i}$ are to be monitored through Ex post monitoring survey and will be crosschecked using the formula $Q_{OP,i} = Q_{T,i} - Q_{NW,i}$. Pls. referer section E-7.1 of monitoring plan of PoA-DD). Further, in case, if authentic data could not be could not be obtained for any of one parameter of above formula, it can be obtained using values of available two parameters.</p>	
Assessment Means of validation	<p>1) It has been clarified why the scrapping of replaced equipment is not included in the monitoring plan.</p> <p>Further DOE Request:</p> <p>Regarding installed capacity, see Further DOE Request of CAR in E.6.3.1.</p> <p>2) -PPs are requested to revise QA/QC procedures to be in line with the sampling procedure and/or refer to the respective chapters in the PoA-DD.</p> <p>-It has to be clarified whether $Q_{OP,i}$ is calculated by subtracting $Q_{NW,i}$ from $Q_{T,i}$ or whether parameter $Q_{OP,i}$ is directly monitored.</p> <p>Conclusion:</p> <p>Above CAR on installed capacity has been closed.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.36</u></p> <p>1) Section E.7.2. mentions some parameters which are not monitored parameters but determined ex-ante. PPs are requested to revise.</p> <p>2) A sampling plan (for parameters to be monitored) is missing and has to be added (see as well CAR in A.4.4.6.).</p>	
Response	<p>1) The parameters have been revised. IWM installed capacity, TWM installed capacity, Average loading of IWM, and Emission factor of diesel based power generator are part of ex-ante list.</p> <p>2) Detailed sampling plan is added in Annex 5</p> <p><u>Further PP response</u></p> <p><u>The sampling plan has been revised in appendix 5 of the revised PoA DD.</u></p>	
Assessment Means of validation	<p>1) See Further DOE Request of CAR in E.6.3.1.</p> <p>2) See Further DOE Request of CAR in A.4.4.6.</p> <p>Conclusion: Respective CAR has been closed above.</p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 80,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.37</u> The date (in the format: dd/mm/yyyy) when the baseline was determined has to be added in E.8.	
Response	Will be added as dd/mm/yyyy <u>Further PP response</u> <u>The date of the conduction of the baseline study was 15/04/2011 has been added in the PoA-DD.</u>	
Assessment Means of validation	Further DOE Request: Date has to be added once final baseline study report is available. Conclusion: Revised baseline study report (IRL 24, 80) has been validated to have the date mentioned.	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed

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Corrective Action Requests by the assessment team		
Requirement	Para 38 of project standard	IRL 85,86
Corrective Action Request	<u>Corrective Action Request No.38</u> Winrock International (in person Mr. Binod Prasad Shrestha) has to be added in E.8.	
Response	Winrock International (in person Mr. Binod Prasad Shrestha) has been added in E.8. of the PoA-DD.	
Assessment Means of validation	The revised PoA-DD included Winrock International (in person Mr. Binod Prasad Shrestha) in E.8. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<u>Corrective Action Request No.39</u> PPs are requested to provide information whether the entity which was responsible for the determination of the baseline is considered as project participant.	
Response	The entity responsible for the determination of the baseline is not considered as the project participant.	
Assessment Means of validation	It has been clarified in E.8. that Asian Development Bank (ADB) is project participant. CAR is closed. <input checked="" type="checkbox"/>	
Adjustment on pro-	PoA-DD has been revised to indicate the requested detail.	

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Corrective Action Requests by the assessment team		
ject design		

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Appropriate project detail is not mentioned in the PoA-DD.	Closed IRL 1,37,85,86
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.40</u></p> <p>According to the description in the PoA-DD (amongst others sections A.2. (“...and to avoid possible switchover/installation to diesel based mills...”), E.2. (“...IWM, which will avoid installation of diesel mills”, “IWM installation will prevent installation of DMs in the future”, E.4. (“..the scenario of ‘replacement of TWMs with IWMs avoiding installation of high power diesel mills’ represents the situation appropriately and hence considered as baseline scenario”)) and the submitted baseline survey reports it becomes clear that the baseline consists of a suppressed demand scenario. However, the applied methodology AMS-I.B, version 10 does not include suppressed demand. The concept note on the treatment of suppressed demand in approved SSC methodologies (EB67, Annex 15, May 2012) (attached and highlighted for PPs’ information) confirms the same mentioning AMS-I.B under section III listing ‘methodologies that may need a revision’. Hence, the given PoA does not fulfil the CDM requirements without a revision of the methodology (which has to be approved by UNFCCC), since the current version of the methodology (AMS-I.B, version 10) does not include suppressed demand.</p>	
Response	Please note that as mentioned in the POA-DD and discussed during the validation also, the baseline scenario of the project activity is continued use and expansion of carbon emissive diesel mills and project activity of implementation of Improved Water Mills (IWMs) will prevent/reduce future expansion of diesel mills in the region/country. At present, implementation of Diesel Mills is going on in Nepal as a common practice and is not a hypothetical or fully futuristic emissions scenario. The available details in this regard have been mentioned in the baseline report. The concept of suppressed demand is applicable when there is a desire to consume a	

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Corrective Action Requests by the assessment team

product or service but due to barriers this desire is not met, specifically in LDCs, due to barriers including low income, poor infrastructure and low level technology. In our project activity, the service under consideration is grinding of food grains which is the main purpose of these water mills/diesel mills. We have not considered any desired service level for estimation of emission reductions hence as per our understanding, this project activity is not covered under suppressed demand scenario. Further, we don't want to get any suppressed demand benefits for this project also hence revision of meth is also not required.

2nd PP's response

Based on queries raised by the DoE in Oct 2013 related to suppressed demand issue and applicability of current version of methodology AMS-I.B, we raised query to UNFCCC-SSC-WG and recently we received the response which clarifies the issue. The completes recommendation of SSC-WG is attached herewith for your kind response. The, major points of the decision are as under, for easy reference.

(1) With regard to the list of methodologies given in the "Concept note on the treatment of suppressed demand in approved small-scale methodologies", (Annex 15 of the annotations to the agenda of EB 67), **this is simply an indicative list of methodologies for which a revision *may* be considered** in order to integrate the concept of suppressed demand, in accordance with the "Guidelines on the consideration of suppressed demand in the CDM methodologies" (i.e., the suppressed demand guidelines). **However, this list in no way implies a compulsory course of action.**

(2) Based on the information provided in the query, it is the view of the SSC WG that this is the case in the underlying project activity and that **the project proponents may use the current version AMS-I.B for their project activity without waiting for a revision.**

(3) The third question raised relates to the criteria for declaring a project as a suppressed demand scenario project. **The suppressed demand guidelines clarify that this issue should be dealt with in the context of specific methodologies, rather than in the context of a specific project.**

As mentioned in the reports and also discussed during the validation site visit also, milling is an unorganised sector and no government office/private organisation of Nepal keeps record/information of the installation of mills, including Diesel Mills. Actually DMs are not being registered in Nepal. Due to this reason its difficult to get detailed statistics of diesel mill installation, during the time of preparation of baseline study reports. In this view, statistical study of few sampled district/VDCs has been carried out on representative basis. Its representative for whole Nepal due to following reasons.

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- Five districts have been selected, one from each development region.
- Sample districts selected from different development regions with consideration of (i) Higher number of traditional water mills available (ii) Representation of both high hill and mid hill

The primary information was collected from District Energy and Environment Officer, District Cottage and Small Industries, Ghatta Owners Associations, District Agriculture Development Officers, focus group discussion, mill equipment suppliers and information from key informant interview. The detailed study/survey was conducted in sample districts based on sampling technique discussed under sampling method/technique to assess the perception of respondent representing different types of mills.

The detailed IWM Baseline study (2nd study) includes collected information on status and comparative system efficiencies across three systems, viz- Diesel Mill, Improved Water Mill, and Traditional Water Mill, the increasing trend of Diesel Mill installation in the sampled districts. A total of 72 numbers of systems, with 24 Improved Water Mills, 24 Traditional Water Mills (TWMs) and 24 Diesel Mills were surveyed to generate the use profile, better understanding of the technology, services and cost related needs and attitudes of the people particularly in relationship to encouraging them to switch over to Improved Water Mills from traditional water mills rather than the diesel mills.

The study has revealed that, TWMs are regarded as less efficient compared to Diesel Mills. Because of increasing processing need and other energy requirements associated with increased agricultural production, people (user) are forced to switch over to Diesel Mills. The average installation costs for DM, TWM and IWM indicated in table 3.7 rightly leads to the conclusion that the private entrepreneurs in villages are spending a lot of money in establishment of diesel mill. The case studies (Case 1 and Case 2) presented in the baseline report confirm that there is switching trend towards the use of diesel mill from the perspectives of both; the entrepreneurs as well as the users. Besides, the rising trend of the diesel mill installation in the surveyed area also indicate that there is rising trend in getting the services from diesel mills. The survey in all the sampled districts has shown that there has been an immense increase in the establishment of diesel mills in the last few years due to the reasons as mentioned above and also due to increased load shedding (power cuts). This has increased the dependency on imported machinery and polluting fossil fuel. Likewise, Improved Water Mill systems are popular in rural areas in places where they are initiated under the government subsidy, which are found cost effective and at the same time satisfying rural agro-processing needs. Lesser tariffs and the ability to integrate multiple end uses are considered an advantage of having IWM.

Regarding details on Diesel Mill increasing scenario, please refer section 3.7 of Detailed baseline report which highlights information on total number of registered DMs in selected districts and the increasing trend of DM installations in last 10 years.

Regarding few confusing statements of the first baseline report as highlighted by you, please note that

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	the basic purpose was to prove importance of IWMs in view of its contribution toward sustainability and GHG emission reduction.	
Assessment Means of validation	<p>2nd DOE Request:</p> <p>The description in the PoA-DD (for details see CAR 40 on the left hand) and presented base-line studies does not allow a clear conclusion for the DOE that the baseline does not consist of a suppressed demand scenario.</p> <p>PP further mentions in his answer that “at present, implementation of diesel mills is going on in Nepal as a common practice and is not a hypothetical or fully futuristic emissions scenario. The available details in this regard have been mentioned in the baseline report”.</p> <p>However the 2 presented baseline studies do not transparently show and indicate that diesel mills are the common practice in Nepal, how many diesel mills are installed in Nepal (except the 2nd baseline study for 5 districts where a few Village Development Committees (VDCs) were sampled), what the proportion of diesel mills to TWM and IWM is in Nepal and how many diesel mills are expected to be installed in the near future in Nepal. Furthermore, no trend of diesel mills, TWM and IWM or even electricity driven mills (nor any figures for the processing demand) for the last years and the coming years is indicated which would show whether there is an increasing tendency of diesel mills in Nepal and whether diesel mills are really common practice in Nepal. It is not clearly explained why the results found in the sampled VDCs would be representative for the whole country Nepal. The 1st baseline study mentions on page 7 e.g. “No census data was found for DM which might pose some statistical validity in case of DM samples chosen, however, random samples of DM are chosen across Nepal to capture the overall picture of systems use and its’ efficiency across regions”.</p> <p>The 1st baseline study even mentions on page 4 the displacement of diesel mills. It is stated that “IWMs have a lot of additive advantage in comparison with diesel mills so there are lots of cases of diesel mills being displaced by the IWM. Till date, 204 units of diesel mills have been displaced in various parts of Nepal.....”. This is a rather contra dictionary argument instead of supporting the baseline scenario.</p> <p>Several statements in the baseline study reports, like e.g. in the 2nd baseline study (on page VI) that “people are switching over to the diesel operated mills” and the reference to the 1st baseline study “the study has highlighted the increasing trend of diesel mills in the country despite the efforts in the promotion of IWM in some areas” or (on page 30) that “private entrepreneurs</p>	

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Corrective Action Requests by the assessment team		
	<p>in the village are investing a lot of money on DM establishment" are not evidenced by supporting documentation and/or representative interview and field visit results indicating quantitative information; Furthermore, the baseline studies contain some further contra dictionary statements and statements which are not fully in line with the results found during the DOE field visit.</p> <p>Conclusion: Audit team has validated the baseline study to verify the use of diesel in absence of those IWMs. A letter from Ministry of Environment, Science and Technology (Government of Nepal) has also been validated that IWMs implemented by AEPC would replace or avoid installation of diesel based water mills. Hence it is accepted. CAR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	PoA-DD has been revised to indicate the requested detail.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Baseline Emissions Calculation is not correct	Closed IRL 00,
Requirement	Para 38 of project standard	
Corrective Action Request	<p><u>Corrective Action Request No.41</u> Section A.6 of PoA DD describes that IWMs generate both mechanical energy and electricity, however it is not clear whether the project participants will claim emission reductions for both mechanical energy and electricity. If so, PPs shall further explain how baseline emissions of the mechanical energy and electricity energy are calculated respectively.</p>	
Response	It seems that there is confusion regarding generation of electricity from the IWMs under this PoA. Please note that the electricity generation by IWM is not covered under this PoA. To avoid	

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Corrective Action Requests by the assessment team		
	any further confusion, a sentence " <i>Mechanical energy is generated by IWMs and the same will be counted towards emission reductions.</i> " has been added in section A.6 page 6 of the PoA DD.	
Assessment Means of validation /	PP had not commented on the second part of the question, i.e. " <i>baseline emissions of the mechanical energy is being calculated</i> ".	
Response	The baseline emissions for the mechanical energy has been calculated as the product of additional installed capacity, operation factor, operating hours and emission factor for diesel. For further detail please refer to section B.6.1 of the PoA-DD (Part II: Generic Component Project Activity) and emission calculation spreadsheet.	
Assessment Means of validation /	PP has explained the calculations for baseline emissions for the mechanical energy based on the product of additional installed capacity, operation factor, operating hours and emission factor for diesel, in Section B.6.1 of the revised PoA DD, the same is found satisfactorily, and hence this CAR is closed out.	
Adjustment on project design	PP has submitted the revised DDs.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	The monitoring plan presented in section B.7 of the PDD is not consistent with the applied methodology and PS.	Closed IRL 00,
Requirement	Para 38 of PS	
Corrective Action Request	<p><u>Corrective Action Request No.42</u></p> <p>The applied methodology provides options in calculating baseline emissions of mechanical energy and electricity energy, however it is not clear which options have been applied and how formula (1) & (2) in page 37 of the PoA DD are in compliance with the options in page 2 of AMS.I.B version 10. In doing so, the project participants shall also specify which op-</p>	

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Corrective Action Requests by the assessment team		
	tion/paragraphs were selected and applied.	
Response	Option (a) of para 7 of AMS.I.B. version 10 has been taken for the calculation of the baseline emissions from the project activity and the same is transparently stated in the relevant section of the PoA-DD.	
Assessment Means of validation /	PP has revised the PoA DD and explained the option in detail. DoE has checked the revised DD and PP is using the “option a” as per AMS I B page 2.	
Adjustment on project design	PP has revised the section B.6.1 of the PoA DD and has submitted the revised PoA DD to DoE.	

Corrective Action Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	The monitoring plan presented in section B.7 of the PDD is not consistent with the applied methodology and PS.	Closed IRL 00, 01, 08, 87, 88
Requirement	Para 38 of PS	
Corrective Action Request	<u>Corrective Action Request No.43</u> AMS I.F has been applied to determine the emission factor of diesel based power generator, however the applied methodology (AMS I.B version 10) did not refer to AMS I.F.	
Response	The methodology AMS.I.B doesn't explicitly mention AMS.I.F for the determination of the emission factor of diesel based power generator. However, the methodology suggest on the use of methodology AMS.I.D for using the emission factor for diesel generator systems in Table I.D.I under category I.D. The methodological versions (16 and 17) of AMS.I.D however do not contain any table with the title “Table I.D.I” as mentioned in AMS.I.B version 10. Table 2 of AMS.I.D suggest on use of different methodologies for different nature of projects. For this particular project since it is the case of avoidance of diesel mills from the baseline, it is identical to project type 2 as mentioned in table 2 “Applicability of AMS-I.D, AMS-I.F and AMS-	

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	I.A based on project types” which requires use of AMS.I.F. Hence AMS.I.F was used for the calculation of baseline emissions.	
Assessment Means of validation /	PP’s clarification to this CAR is not satisfactory, as the applied methodology AMS I B version was approved in EB 33 and the approved versions of AMS ID from that time starts from version 12, and there it gives the Table 1.D.1 in the methodology AMS ID as referred in AMS IB.	
Response	Regarding the use of the emission factor taken for the diesel for the baseline emission calculations PP had earlier referred only to the methodological versions 16 and 17 of AMS.I.D, now since the newer version of methodology (AMS.I.B version 11) the same is referred. AMS.I.B. version 11 in paragraph 9 (a) option (i) requires the calculation of the baseline emission as “the power requirement times hours of operation per year times the emission factor for diesel generator systems, determined according to procedures specified in “AMS.I.A: Electricity generation by the user”. AMS I.A. (version 16) allows, with adequate justification, in paragraph 9, for a small scale project proponent to use a higher emission factor from Table I.F.1 under category AMS I.F. “Renewable energy generation for captive use and mini-grid”. Table I.F.1 stipulates different load factors for different cases. The conservative emission factor stipulated in the table is 0.8 Kg CO ₂ e/kWh which corresponds for the case where rated capacity of the generator is >200 kW which is not applicable for the baseline of this PoA. Since the maximum capacity of the Diesel Mills prevalent in Nepal is of 12 kW, which falls under the case of <15 kW, (the baseline study conducted on May 2012 comes up with a finding that the diesel mills in Nepal have the capacity range between 10hp to 16 hp, taking the unit conversion from hp to kW as 0.75, the corresponding kW for 16 hp diesel mill is 12 kW), the same has been accounted for the emission factor. Hence, the corresponding most conservative (100% loading consideration) emission factor of 1.2 Kg CO ₂ /kWh has been chosen (refer table AMS.I.F, version 02)	
Assessment Means of validation /	PP is now using the version 11 of AMS I B, which clearly states to use AMS IA for the emission factor. Hence PP shall use the emission factor mentioned in para 9 of AMS I A. As per AMS I A, there is the possibility to use the AMS IF for the EF under “Adequate justification”, however DoE couldn’t found the adequate justification in order to use AMS IF for the emission factor.	
Response	The justification for the use of the stipulated emission factor has been mentioned. Please see the highlighter portion in the response above.	

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Corrective Action Requests by the assessment team		
Assessment Means of validation /	<p>Above justification given by PP is regarding the use of value 1.2 according to table 1.F.1. However according to the applicable methodology AMS IB version 11, PP shall use the AMS I A for the emission factor - which says the value of 0.8. Hence in the DoE's opinion EF value should be 0.8 for the project activity as there is no adequate justification given by PP to use higher EF value mentioned in table 1.F.1 (suggested by AMS IF).</p> <p>P.S.: AMS IA should be used for the default emission factor. Higher emission factor according to AMS IF can only be used with adequate justification, however there is no adequate justification in this project activity to use AMS IF</p>	
Response	<p>AMS.I.B is the methodology applied for the Improved Water Mill PoA. The methodology in paragraph 9 a (i) requires the estimation of baseline emissions in year "y" by "<i>the power requirements times hours of operation per year times the emission factor for diesel generator systems, determined according to procedures specified in AMS.I.A</i>". This paragraph requires PP to follow the procedures as per AMS.I.A but doesn't necessarily require PP use the default emission factor listed in the methodology AMS.I.A.</p> <p>AMS.I.A in paragraph 9 states ".....For EF_{CO_2}, default value of 0.8 $KgCO_2e/kWh$, which is derived from diesel generator system <u>may be</u> used. However, a small scale proponent may, with adequate justification use a higher emission factor from table I.F.1 under the category AMS.I.F..." The above condition of AMS.I.A provides flexibility for use of emission factor, which is a most close scenario.</p> <p>Further it states "<i>In case where the project activity displaces existing fossil fuel captive electricity generation, EF_{CO_2} of the captive generation shall be determined using scenario B of "Tool to calculate baseline, project and/or leakage emissions from electricity consumption". This para relates to the project activity displacing existing fossil fuel in captive electricity generation but the case with the project is the avoidance of emissions associated with further installation of diesel mills. Hence the provision mentioned in the second para is not applicable to the project.</i></p> <p>Taking into account the provisions stipulated in the para 9 of AMS.I.A (as mentioned above) PP</p>	

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Corrective Action Requests by the assessment team		
	<p>has opted to use the provisions to use EF from AMS.I.F rationally because:</p> <ul style="list-style-type: none"> ➤ The diesel generator systems considered in the baseline are captive power generating system and the AMS.I.F table provides detailed values of emission factor, for each of the project condition. The EF value scenario's mentioned in the table clearly fits with the project activity scenario. ➤ The emission factor of 0.8 specified in AMS.I.F corresponds to cases above 200 kW whereas the capacity of IWM included in the project is well below the 15 kW range. Further, as revealed by the baseline study for the PoA, the diesel generator system used in the baseline for agro processing is in the range of 10 hP to 16 hP which correspond to the range of 7.45 kW to 11.93 kW. As such, the baseline diesel generator system also remains well below 15 kW capacities. Provided these, the use of emission factor from AMS.I.F provides preciseness in the estimation of the emission reductions and PP found it justifiable to use the same. 	
Assessment Means of validation /	PP has now explained in detail the reason to adopt the EF from AMS IF, which is accepted to DoE. Hence this CAR is closed out.	
Adjustment on project design	PP has submitted the revised DDs.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 21,22,23,85,86
Requirement	PS para 138	

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Clarification Requests by the assessment team		
Clarification Request	<u>Clarification Request No. 1</u> The following supporting documentation has to be submitted to the validation team: -Detailed technical specifications (manual etc...) of equipment applied in the project activity (IWM) as well as equipment previously used (TWM) including efficiencies of the systems. -Information about involved parties (AEPC, ESAP, CRT/N, GOA etc) -Programme and project (1 st CPA) Implementation schedule.	
Response	-Documents with technical specification of IWM was submitted but need to provide labelled diagrams of TWM and IWM -The information about the AEPC and ESAP can be located in http://www.aepc.gov.np The information about CRT/N can be located in http://www.crtnepal.org/ -Implementation schedule is added as Annex 6 of PoA-DD Revised TWM and IWM Diagram to be added	
Assessment Means of validation	-Technical specifications of 2 IWMs types (shaft short model, and shaft long model) which will be used in the programme have been submitted to the validation team during on-site visit. -Information about AEPC, ESAP and CRT/N has been checked with the respective websites http://www.crtnepal.org/ and http://www.aepc.gov.np/ -Implementation schedule (programme/project) has been submitted.	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 79, 82
Requirement	PS para 173 & 179	
Clarification Request	<u>Clarification Request No. 2</u>	

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Clarification Requests by the assessment team		
	The host country letter of approval has to be submitted to the validation team if available as well as the MoC.	
Response	<p>Already submitted to DNA for approval of POA DD and CPA DD-1</p> <p><u>Further PP response</u> <u>The Host Country Approval has been submitted to the DOE as supporting document #94 (LoA DNA).</u></p>	
Assessment Means of validation	LoA has been submitted and validated.	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 82,85,86
Requirement	PS para 139-141	
Clarification Request	<p><u>Clarification Request No. 3</u> AEPC makes part of the Ministry of Environment, Government of Nepal. Why then the Party "Government of Nepal" is not included as PP in A.3.?</p>	
Response	AEPC was established in 1996 as a semi-autonomous body formed under the Alternative Energy Promotion Board for developing and promoting Renewable Energy Technology in Nepal. The Alternative Energy Promotion Board is a separate board which consists of 9 members from various sectors – Government, Private Sector and Financial Institutions. The board of AEPC has overall authority to make decision on its activities. AEPC support government to formulate	

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Clarification Requests by the assessment team		
	RET related policy, plan and coordinate national level stakeholders to implement the policy and plan. Recently AEPC is in the process of transforming into a full autonomous organization (see document: AEPC establish and operation bill). So, Government of Nepal is not included as PP in A.3.	
Assessment Means of validation	<p>Clarification has been provided why the Host Party “Government of Nepal” is not included as PP. AEPC is a semi autonomous body formed under the Alternative Energy Promotion Board for developing and promoting Renewable Energy Technology in Nepal. The Alternative Energy Promotion Board is a separate board which consists of 9 members from various sectors – Government, Private Sector and Financial Institutions. The AEPC formation act confirms the same.</p> <p>Since AEPC cannot be considered as full government body, the “Government of Nepal” (in the revised PoA-DD changed to Federal Democratic Republic of Nepal) has not been included as PP.</p> <p>CR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 8,10,11,80
Requirement	PS para 173 & 179	
Clarification Request	<p><u>Clarification Request No. 4</u></p> <p>A.4.3. mentions that “the project activity is replacement of existing TWMs with high capacity, more efficient and effective service of IWMS, which will avoid switchover of TWM owners to commonly used high power diesel mills and contributes for GHG emission reductions.” Supporting documentation/evidence has to be submitted that high power diesel mills are commonly</p>	

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Clarification Requests by the assessment team		
	used and would be the baseline scenario in the absence of the programme activity.	
Response	<p>Need to provide supporting document to prove DM is the baseline Final baseline report will be submitted to DoE as soon as possible.</p> <p><u>Further PP response</u> PP carried out additional baseline study after DOE field visit. The new baseline study is submitted to confirm the baseline scenario as stated in the PoA DD. Further, the field visit was undertaken on 3rd and 4th May 2013 to confirm the baseline.</p>	
Assessment Means of validation	<p>Further DOE Request: The DRAFT baseline survey report submitted to the DOE and interviews taken during DOE on-site visit do not confirm the baseline scenario stated in the PoA-DD.</p> <p>Strong supporting documentation/evidences have to be submitted to the DOE to confirm the baseline scenario stated in the PoA-DD.</p> <p>Conclusion: A letter from Ministry of Environment, Science and Technology (Government of Nepal) has also been validated that IWMs implemented by AEPC would replace or avoid installation of diesel based water mills (IRL #xx).</p>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed

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Clarification Requests by the assessment team		
Requirement	PS para 173b	IRL 10
Clarification Request	<p><u>Clarification Request No. 5</u></p> <p>PPs are requested to provide the documentary evidence to be able to validate that the proposed voluntary coordinated action would not be implemented in the absence of the PoA.</p>	
Response	<p>Final proposal December 2001 regarding Program Support to Nepal's Renewable Energy Sector planned to provide sector support to improved water mills. The sector support program was planned for the period of 2002 to 2009, although the budget was allocated from DGIS/SNV and the government for six years until 2007 (see document "final proposal December 2001", page V). The program was initiated in 2003 (see document "Improved Water Mill Programme Plan, January 2007 to January 2009, page 1).</p> <p>DGIS allocated 0.739 million USD and the government allocated 0.245 million USD for IWM promotion (see document "final proposal December 2001", page V).</p> <p>The program was limited to seven districts in 2006 due to financial constraints and only 2388 IWMs were installed by 2006 (see document "Improved Water Mill Programme Plan, January 2007 to January 2009", page 1).</p> <p>The program districts were extended to 16 districts after the Mid Term Review recommendation in 2006 to convert Euro 0.308 million from credit to subsidy with some replacement of old districts by new one from January 2007 until early 2009. 0.637 million USD was allocated to implement the IWM program during 2007-2009 (see document "Improved Water Mill Programme Plan, January 2007 to January 2009", page 22).</p> <p>DGIS/SNV support was expected until 2009 (see document "Improved Water Mill Programme Plan, January 2007 to January 2009", cover page) and it was extended without additional budget until 2010 (Document for extension is missing). The program slowed down and reduced its activities in 2010 due to lack of sufficient budget, so the IWM installation reduced in 2010 to 556 IWM (compared to 1073 IWM in 2009) (see CRTN annual reports 2009 and 2010).</p> <p>DGIS/SNV decided to stop supporting the promotion of IWM in December 2010 (Document for stop is missing)..</p> <p>The Norwegian government through ESAP program started support for the promotion of IWM since January 2011 (see document "contract for the operation of AEPC/ESAP January 1st to</p>	

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Clarification Requests by the assessment team		
	<p>June 2011 activities"). This support from Norwegian government will end in March 2012 with the end of ESAP II programme. (see agreement between Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010 and Joint Financing arrangement between ministry of foreign affairs of Denmark, ministry of foreign affairs of Norway and government of Nepal and Energy Sector Assistance Programme (Phase II) (ESAP- II) Programme Documents, Vol I.</p> <p>There is no further funding commitment from donors for installation of IWM. In this context, CDM revenue is very crucial to meet the funding gap to ensure continuation of the program in off grid areas of the country.</p> <p><u>Further PP response</u></p> <p>final proposal December 2001", page V is provided in supporting document # 82 contract for the operation of AEPC/ESAP January 1st to June 2011 activities, is provided in supporting document #84 agreement between Norwegian Ministry of foreign affairs and government of Nepal, dated November, 26 2010, is provided in supporting document # 83</p>	
Assessment Means of validation	See Further DOE Request of CAR in A.2.2.	
	Conclusion: Respective CAR above has been closed.	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 00
Requirement	PS para 123, 124	

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Clarification Requests by the assessment team		
Clarification Request	<u>Clarification Request No. 6</u> <ol style="list-style-type: none"> 1) Clarification has to be provided whether GPS coordinates of each IWM location are part of the database. 2) The following supporting documentation has to be submitted to the validation team: - Tripartite agreement, -IWM request form (application form), -feasibility study, project completion certificate (PCC). 	
Response	<ol style="list-style-type: none"> 1) we are not collecting the GPS coordinates for each IWM location. 2) All the documents have been submitted except Tripartite agreement which is not required. 	
Assessment Means of validation	<ol style="list-style-type: none"> 1) GPS coordinates for each IWM location are not part of the database. 2) IWM request form, feasibility study, project completion certificate templates were submitted to the DOE. Tripartite agreement is not applicable. 	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 85,86
Requirement	PS para 34	
Clarification Request	<u>Clarification Request No. 7</u> <p>PP are requested to clarify how the programme/CPAs will be funded if not by Annex I countries support. Supporting documentation has to be submitted. Information is provided in Annex 2 of the 1st CPA which states that the project receives financial assistance from DANIDA, a Danish Agency. However, nothing is mentioned about that in A.4.5. of the PoA-DD.</p> <p>Therefore it seems that funding from Annex I countries might be a possibility for some of the CPAs. Thus, an eligibility criterion has to be included to provide an affirmation that funding from</p>	

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Clarification Requests by the assessment team		
	Annex I parties, if any, does not result in a diversion of official development assistance. See CAR in A.4.2.12.	
Response	<p>Answer will be provided after on-site visit.</p> <p><u>Further PP response</u></p> <p>The information regarding the public funding of the PoA is included in the section A,7 of the revised PoA DD. It has been clarified that the CES receives funding from the Danida and Norway and this doesn't involve any diversion in official development assistance as committed by the development partners. The letters for ODA non-diversion from Danida and Norway is presented in appendix 2 of the PoA DD.</p>	
Assessment Means of validation	Funding scenario has been clarified in the list of findings and also in the revised PoA-DD. Hence it is accepted.	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 31
Requirement	PS para 63	
Clarification Request	<p><u>Clarification Request No. 8</u></p> <p>Supporting documentation for the statement that hydro power projects below 1 MW do not need EIA has to be submitted. Are they also excluded from performing an IEE? If yes, information has to be added in the PoA-DD.</p>	
Response	As per Environment Protection Regulations 1997 (and its amendment in 2009) hydro projects	

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Clarification Requests by the assessment team		
	do not require any environmental impact assessment (EIA) or Initial Environment Examination (IEE) generating less than 1 MW of electricity.	
Assessment Means of validation	As per the Environment Protection Regulations 1997 and its amendment in 2009, Initial Environmental Examination (IEE) is necessary for hydro projects from 1 MW to 50 MW and Environmental Impact Assessment (EIA) for hydro projects above 50 MW. Thus, it is clear that improved water mills with maximum capacity of 3 kW do not require neither IEE or EIA. CR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 32,33,34,35,36
Requirement	PS para 65-69	
Clarification Request	<u>Clarification Request No. 9</u> 1) PPs are requested to provide supporting documentation that stakeholder comments from different stakeholders all around Nepal are really the same. There could be differences in the comments due to unequal living conditions, different climatic conditions, accessibility to diesel fuel in different regions. One CPA might include regions with peculiarities which other CPAs do not include. 2) PPs are requested to clarify why investors in the IWM programme act at a national level once investors are supposed to be mostly local mill owners.	
Response	1) IWM stakeholders invited from hilly region of Nepal represent the whole region in which the National IWM Program will be implemented. 2) The key institutional stakeholders, such as NGOs, industry associations in the IWM pro-	

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Clarification Requests by the assessment team		
	<p>grammes act at the national level and mill owners at local level.</p> <p><u>Further PP response</u></p> <ol style="list-style-type: none"> 1) Different stakeholders from various hilly and mountain districts of Nepal participated in the stakeholder consultation meeting. Supporting document has been submitted, in supporting document # 91 2) The key institutional stakeholders, such as NGOs, industry associations act at the national level where as investors in the IWM programmes act at the local level. 	
Assessment Means of validation	<p>Further DOE Request:</p> <ol style="list-style-type: none"> 1) Supporting documentation for item 1 has not been submitted yet. 2) Correction has not been provided yet. <p>Conclusion:</p> <p>Relevant supporting documents for stakeholder has been submitted and validated.</p> <p>Hence this clarification request is closed.</p>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 34,35,36
Requirement	PS para 65	
Clarification Request	<p><u>Clarification Request No. 10</u></p> <p>A translated version of the invitation letter has to be submitted together with various samples of</p>	

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Clarification Requests by the assessment team		
	letters (addressed to different groups of stakeholders).	
Response	Required document (translated version of invitation letter) was submitted.	
Assessment Means of validation	Translated version of the invitation letter together with various samples of letters have been submitted to the DOE. CR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 33,34,35
Requirement	IRL 66	
Clarification Request	<u>Clarification Request No. 11</u> PPs are requested to clarify whether it is a requirement in Nepal to conduct a local stakeholder process for renewable energy projects like IWM projects and if yes whether there are certain requirements how to conduct such a process. Supporting documentation has to be submitted to the validation team.	
Response	As such there is no requirement in Nepal to conduct a local stakeholder process for small renewable energy base technology projects but according to the CDM requirements we have conducted a local stakeholder consultation meeting on 18 April 2011 at District Development Committee Meeting Hall, Birendranagar, Surkhet.	
Assessment Means of validation	It is confirmed by an Email from the DNA of Nepal that the Government of Nepal has no formal process and instruction to the project participant to organise the stakeholder consultation. However, the DNA understands that the project participant organizes such consultations at the field.	

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Clarification Requests by the assessment team		
	CR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 56
Requirement	PS para 44	
Clarification Request	<p><u>Clarification Request No. 12</u></p> <p>EB22, Annex 3 (Clarifications on the consideration of national and/or sectoral policies and circumstances in baseline scenarios) mention in paragraph 7 (b) that national and/or sectoral policies or regulations under paragraph 6 (b) (which refers to E- policy) that have been implemented since 11/11/2001 need not be taken into account in developing a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place). The policies applied for the programme are dated 2006 and 2009 (clearly after November 2001) and therefore do not have to be considered in developing the baseline scenario. However, the PoA-DD mentions that AEPC (the CME of the programme) is a government institution established in 1996 under the then Ministry of Environment with the objective of developing and promoting renewable/alternative energy technologies in Nepal. Clear/transparent evidences/supporting documentation have to be submitted confirming that no subsidies were granted to renewable energy projects (like installation of IWM) before 11/11/2001 and that 2006 are the 1st published policies for renewable energies of the government of Nepal. In the case that any previous subsidy policy/renewable policy exists, PPs are requested to submit to the validation team.</p>	
Response	An overview of improvement of water mills in hilly areas of Nepal for rural applications published in 2000 by GTZ Nepal jointly with CRTN has mentioned that continuous efforts of Nepalese technicians and support from GTZ/GATE brought some improvements in traditional water	

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Clarification Requests by the assessment team		
	<p>mills since early 1980s. In order to promote and disseminate improved water mills, GATE had provided financial assistance up to 50% in the beginning of this phase and 25% in the later stage of this phase of the total cost for the IWM installation during 1984-1988 (1st phase) and installed 80 IWMs.</p> <p>Centre for Rural Technology Nepal (CRTN) implemented 54 IWM project in two districts during 1991-1993 (2nd phase) and 211 IWMs during 1993-1996 (3rd phase). Similarly, additional 287 IWMs were installed during the period of 1996-1999 (4th phase) by CRTN with collaboration with other NGOs and international NGOs.</p> <p>Government of Nepal has been planning to promote different renewable energy based technologies since its 7th five year plan and 3 year interim plan (see document 8th plan). The ninth year plan (1997-2002) also did not indicate any target for IWM. IWM program was considered in government plan since tenth year plan (2002-2007). This plan had target of 4,000 IWM installation. It is, therefore, clear that none of the government plans before 2002 have neither policy nor target to promote improved water mill program in the country.</p> <p>Government of Nepal introduced Renewable Energy Subsidy Policy in 2000 as a sector subsidy policy to promote renewable energy technologies in Nepal. However this subsidy policy didn't address and support to promote improved water mill program.</p>	
Assessment Means of validation	<p>The GTZ document (IRL 56) describes some activities in IWM dissemination of GTZ/GATE together with various agencies from 1984 to 1999. The number of implemented IWM is however not significant. The Government of Nepal approves at least every 5 years a National Plan. Neither the 8th plan nor the 9th plan (1997-2002) mention any target for IWM. The first time, the 10th plan mentions a target for the installation of IWM (4,000 IWM), however this target is not binding. The DOE verified the National plans (IRL 64, 65, 66) and confirms that there is no E-policy as per EB22, Annex 3. This has been cross-checked with the Renewable Energy Subsidy Policy 2000 document (IRL 76) which does not mention anything about water mills.</p> <p>CR is closed. <input checked="" type="checkbox"/></p>	
Adjustment on project design	No changes required in the project design.	

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Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 56
Requirement	PS para 31	
Clarification Request	<u>Clarification Request No. 13</u> Regarding parameter "Installed capacity TWM": The CR in A.2.3. already requests the submission of supporting documentation regarding the technical specifications of TWM. Supporting documentation has to be submitted to confirm that the installed capacity of TWM is ALWAYS 0.5 kW and thus can be considered as ex-ante determined fixed value for all CPAs.	
Response	Year book of the Centre for Rural Technology (CRTN) and GTZ report have provided the ranges.	
Assessment Means of validation	The GTZ report (April 2000) and Yearbook of the Centre for Rural Technology, Nepal, mention both a power output range from 0.2 kW to 0.5 kW. PP decided to use the average figure of 0.35 kW and is deemed appropriate for the calculation of the emission reduction. CR is closed. <input checked="" type="checkbox"/>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 00
Requirement	PS para 38	
Clarification Request	<u>Clarification Request No. 14</u> Regarding parameter "Sample size": The reason/justification for the minimum sample size of 100 has to be provided.	

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Clarification Requests by the assessment team		
Response	<p>We will follow the CDM sampling guideline and accordingly work out on sample size.</p> <p><u>Further PP response</u></p> <p>The "Standard of Sampling and Surveys for CDM Project Activities and Programme of Activities (Version 02)" of EB 65, Annex 02 has been followed and Annex 5 of the PoA-DD has been revised accordingly. Regarding the sample size, a minimum of 71 samples will be considered during sampling.</p>	
Assessment Means of validation	<p>See Further DOE Request of CAR in A.4.4.6.</p> <p>Conclusion: Respective CAR above has been closed.</p>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	Further clarification is requested on project details	Closed IRL 50,85
Requirement	PS para 38	
Clarification Request	<p><u>Clarification Request No. 15</u></p> <p>The parameter "operating hours" refers as per the methodology to the "annual operating hours of equipment that uses the mechanical energy produced". Does really the water mill uses the energy? PPs are requested to clarify/revise.</p>	
Response	The operating hours refers to the annual operating hours of the IWM. Further, the water mill does not need any energy for running the mill.	

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Clarification Requests by the assessment team		
	<p><u>Further PP response</u></p> <p>Operating hours refers to the annual operating hours of IWM and IWM does not require any energy for its operation. i.e for Water mill activity operation no auxiliary consumption is required. The purpose of water mill is to convert kinetic energy of water into mechanical energy, which will be used for milling purpose.</p>	
Assessment Means of validation	<p>Further DOE Request:</p> <p>Further explanation is necessary.</p> <p>Conclusion:</p> <p>It has been clarified that water mill will not have any electricity consumption.</p>	
Adjustment on project design	No changes required in the project design.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	<u>Sampling Issue</u>	Closed IRL 87, 88
Requirement	PS 119	
Clarification Request	<p><u>Clarification Request No. 16</u></p> <p>Footnote 1 of the PoA DD indicates entrepreneurs are possible users of IWM whereas the target population of the sampling plan (e.g. page 51 of PoA DD) has only included the households. If the target group of the PoA includes users other than households, users other than households shall be specified and included in the sampling plan. PP shall further clarify the issue.</p>	
Response	There was typo in the PoA DD regarding the household. The households are now appropriately	

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Clarification Requests by the assessment team		
	replaced by the IWM users (Entrepreneurs)	
Assessment Means of validation /	There was the typo error, PP has submitted the revised PoA DD, which is now consistent with page 51 and footnote 1, Hence this CR is closed out.	
Adjustment on project design	PP has submitted the revised PoA DD.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	<u>Applicability of Methodology is not complete.</u>	Closed IRL 00
Requirement	PS 38	
Clarification Request	<u>Clarification Request No. 17</u> <ul style="list-style-type: none"> Discussion on the paragraph 3a and 3b of the methodology AMS I B version 11 is missing in the DDs, PP shall further elaborate the ground for not considering these para. Para 3f of methodology AMS I B version 11 is not clearly addressed in the section B.3 of the PoA DD, as it is not clear that how <i>"the added capacity of the units added by the project will be physically distinct from the existing units"</i> 	
Response	<ul style="list-style-type: none"> The methodology applicability conditions as stipulated in the paragraph 3a and 3b are addressed in the PoA and CPA-DDs. The para 3f has been revised appropriately. Now the justification has been added in the relevant sections of the PoA and CPA DD. 	
Assessment Means of validation /	PP has now included the discussion about the para 3a and 3b in section B.3 of the revised version of the PoA DD, according to which PoA will not involve replacement or retrofit of existing fossil fuel generators or pumps.	

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Clarification Requests by the assessment team		
	PP has now included the discussion about para 3f of the methodology AMS IB in section B.3 of the revised version of the PoA DD, and it is validated that the <i>the added capacity of the units added by the project will be physically distinct from the existing units.</i> <i>Hence this CR is closed out.</i>	
Adjustment on project design	PP has submitted the revised DDs.	

Clarification Requests by the assessment team		
	Comments and Results	Conclusion and IRL
Issue	<u>To clarify whether the intended use is mechanical or electrical energy</u>	Closed IRL 00, 87, 88
Requirement	PS 38	
Clarification Request	<u>Clarification Request No. 18</u> <ul style="list-style-type: none"> The IWMS is reported to generate both mechanical energy and electricity (1-3 kW, as described in section A.6 of PoA DD), whereas the capacity of the IWM (which appears to generate both mechanical energy and electricity) has been used to calculate the emission reduction of the mechanical energy; It is not clear whether the capacity of the IWM is equal to the "mechanical power requirements" defined as per paragraph 9(a) of approved methodology AMS.I.B version 11. PP needs to clarify the operation mode of the IWM, in particular: (i) how the mechanical energy and electricity are to be generated; and(ii) whether the mechanical energy and electricity are generated simultaneously. 	
Response	<ul style="list-style-type: none"> Improved Water Mills are meant for agro-processing and electricity generation is one of the end uses specifically for the long shaft IWMS and generation of electricity is very rare practice in IWMS. Regarding the calculation of baseline emissions, PP requests board to take stock of the following: <ul style="list-style-type: none"> There is no overlapping operation of IWM and electricity generation; hence the question of 	

List of Findings - Compilation and Resolutions

Project Title: PoA for Promotion of the Improved Water Mills (IWM) in Nepal

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Clarification Requests by the assessment team		
	<p>accounting the electrical capacity for the emission reduction of mechanical energy is not relevant. The agro-processing activities are done during day time and electricity is generated for the night time. Further, the duration of operation should also not be confused. The operation duration as it is given in the emission reduction calculation spreadsheet corresponds to the operation of IWM only for the purpose of mechanical usage and not the electricity generation.</p> <ul style="list-style-type: none"> ○ Regarding the capacity of the IWM stated in the question, please note that electrification is one of the minor end uses in the long shaft IWM. It is primarily taking advantage of water energy when the grain milling operation is over. If there is possibility to give electricity to the village in spare time and if the electricity generation is economical then only this option is exercised. Please note that (i) electricity generation is done only when there is no milling operation. And (ii) the emission reduction from electricity generation is not considered in emission reduction calculations. Thus, the presence of electricity generation does not affect emission reduction. ○ The emission reductions are solely calculated for the mechanical energy generated which relies on the operational status and duration of operation of the IWM for milling purpose. This does not account the baseline emissions attributable to "fossil fuel for lighting" in baseline scenario. • The "mechanical power requirements" is consistent with the definition provided as per para 9 (a) of approved methodology AMS.I.B version 11 (as per para 16(a) of the version 12). The installed IWM generates mechanical power which is solely consumed for agro processing. In case where the electricity generation is also one of the end uses in case of long shaft IWM; since the IWM operation and electricity generation do not overlap, the mechanical power requirement calculated as per the methodology corresponds to the mechanical component of IWM and not the electrical component. • Concerns regarding these were validated by DOE and has been successfully resolved (Please see CAR # 31 and 32 in the validation report) <ul style="list-style-type: none"> i) The turbine that generates mechanical and electrical energy is the same. During day time, the turbine is connected with the pulley that conveys power to milling unit while in the evening the turbine is connected to the generator by another pulley to generate electricity. ii) The mechanical energy and electricity are not generated simultaneously. 	
Assessment Means of validation /	As per the Auditor observation during site visit and documentation reviewed, Improved Water Mills are meant for agro-processing and electricity generation is one of the end uses specifically for the long shaft IWMs and generation of electricity is very rare practice in IWMs. Regarding the calculation of baseline emissions, PP has given the justification and revised the approach in the revised DDs as below:	

List of Findings - Compilation and Resolutions

Project Title: PoA for Promotion of the Improved Water Mills (IWM) in Nepal

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Clarification Requests by the assessment team		
	<ul style="list-style-type: none"> ○ There is no overlapping operation of IWM and electricity generation; As validated during on site - The agro-processing activities are done during day time and electricity is generated for the night time. ○ Regarding the capacity of the IWM, electrification is one of the minor end uses in the long shaft IWM. It is primarily taking advantage of water energy when the grain milling operation is over. If there is possibility to give electricity to the village in spare time and if the electricity generation is economical than only this option is exercised. It was discussed during onsite that that (i) electricity generation is done only when there is no milling operation. And (ii) the emission reduction from electricity generation is not considered in emission reduction calculations. Thus, the presence of electricity generation does not affect emission reduction. ○ The emission reductions are solely calculated for the mechanical energy generated which relies on the operational status and duration of operation of the IWM for milling purpose. This does not account the baseline emissions attributable to "fossil fuel for lighting" in baseline scenario. The same has been cross checked with ER sheet. • The "mechanical power requirements" is now consistent with the definition provided as per para 9 (a) of approved methodology AMS.I.B version 11 (as per para 16(a) of the version 12). The installed IWM generates mechanical power which is solely consumed for agro processing. were validated by DOE and has been successfully resolved (Please see CAR # 31 and 32 in the validation report) iii) The turbine that generates mechanical and electrical energy is the same. During day time, the turbine is connected with the pulley that conveys power to milling unit while in the evening the turbine is connected to the generator by another pulley to generate electricity. <p>The mechanical energy and electricity are not generated simultaneously.</p>	
Adjustment on project design	PP has submitted the revised DDs.	




South Asia

Annex 2


Information Reference List

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
00		<p>Onsite interview (21.11.2011 - 27.11.2011) carried out by TÜV SÜD: <u>Validation Team on site:</u> Mr. Maharjan, Bhai Raja TÜV SÜD, Munich, Germany Mr. Thaler, Johann TÜV SÜD, Munich, Germany</p> <p>Interviewed persons: Mr. Raju Laudari: Manager, Climate and Carbon Unit (AEPC) Sandeep Joshi: Climate Mitigation program officer (AEPC) Samir Thapa: Senior energy officer (AEPC) Bhupendra Shakya: Renewable energy expert (AEPC) Binod Prasda Shrestha: Director, WINROCK, Nepal Hemant Nandan Pawar: International CDM specialist, Asian Development Bank (ADB) Nisha Shrestha: Program Associate, WINROCK, Nepal Milan Shrestha: Field Facilitator IWMP/CRT/N</p> <p>Interviews during on-site field visits with traditional water mill owners, improved water mill owners, diesel mill owners, technicians</p>		<i>Reference to the PDD/MR chapter or CDM requirement</i>
0.	UNFCCC Webpage	<p>GSP PoA-DD "PoA for Promotion of the Improved Water Mills (IWM) in Nepal", version 01 GSP CPA-DD (real case) "PoA for Promotion of the Improved Water Mills (IWM) in Nepal – CPA 1" GSP CPA (generic) "PoA for Promotion of the Improved Water Mills (IWM) in Nepal – CPA "</p>	29/09/2011	<i>GSP PoA docs</i>

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
		http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/ET8VSFNNQ40UXSGV6QG8WB1HRXLN5A/view.html		
1.	UNFCCC	Approved Small Scale Methodology AMS.I.B. ver. 10, "Mechanical energy for the user with or without electrical energy" Approved Small Scale Methodology AMS.I.B. ver. 11, "Mechanical energy for the user with or without electrical energy"	EB33 EB 76 Annex 10	<i>Methodology</i>
2.	UNFCCC	Guidelines for demonstrating additionality of microscale project activities, version 03	EB63, Annex 23	<i>Guideline for additionality</i>
3.	UNFCCC	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for PoAs	EB65, Annex 3	<i>Guideline for additionality, eligibility criteria, multiple methodologies</i>
4.	UNFCCC	Guidelines on assessment of debundling for SSC project activities	EB54, Annex 13	<i>Guidelines for debundling</i>
5.	UNFCCC	Procedures for registration of a PoA as a single CDM project activity and issuance of certified emission reductions for a PoA	EB55, Annex 38	<i>Procedure for registration</i>
6.	UNFCCC	Clarifications regarding the "Procedures for registration of a PoA as a single CDM project activity and issuance of CERs for a PoA".	EB60, Annex 26	<i>Clarification regarding procedures</i>
7.	UNFCCC	Clarifications on the consideration of national and/or sectoral policies and circumstances in baseline scenarios (version 02)	EB22, Annex 3	<i>Baseline</i>
8.	UNFCCC	AMS I.F. "Renewable electricity generation for captive use and mini-grid", version 02, mentioning emission factors for diesel generator systems for 3 different levels of load factors	EB61	

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
9.	Ministry of environment, Government of Nepal	Rural Energy Policy of Government of Nepal, Ministry of Environment	11/2006	<i>Baseline</i>
10.	Alternative energy promotion centre (AEPC)	Subsidy Policy for Renewable (Rural) Energy, Government of Nepal (Ministry of Environment Alternative Energy Promotion Centre)	07/2009	<i>Baseline</i>
11.	AEPC	Renewable (Rural) Energy Subsidy Delivery Mechanism, Government of Nepal (Ministry of Environment, Alternative Energy Promotion Centre)	02/2010	<i>Baseline</i>
12.	AEPC	Emission reduction calculation excel sheet "A7-IWM_ER Calculation_v01_3000911", version 01 A7 - IWM_ER Calculation03082015	Submitted on 12/10/2011	<i>Project activity</i>
13.	CRT/Nepal	Support to Improved water mill (IWM) Programme, Annual Report 2003	March 2004	
14.	CRT/Nepal	Improved water mill (IWM) Programme, Annual Report (January-December 2004)	January 2005	
15.	CRT/Nepal	Support to Improved water mill (IWM) Programme, Annual Report 2005	January 2006	
16.	CRT/Nepal	Support to Improved water mill (IWM) Programme, Annual Report 2006	March 2007	
17.	CRT/Nepal	Support to Improved water mill (IWM) Programme, Annual Report (January – December 2007)	March 2008	
18.	CRT/Nepal	Improved water mill Programme under the Renewable energy sector support programme (RESS) Programme, Annual Report (January – December 2008)	March 2009	

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
19.	CRT/Nepal	Improved water mill (IWM) Programme, Annual Report (January – December 2009)	March 2010	
20.	CRT/Nepal	Improved water mill (IWM) Programme, Annual Report (January – December 2010)	February 2011	
21.	Centre for rural technology, Nepal (CRT/N)	Quality standards for IWM components (Shaft, Short model, version 1.2, Issue number: IWM-SHA-102.b)	May 2005	Technical specification
22.	CRT/N	Quality standards for IWM components (Shaft, Long model, version 1.2, Issue number: IWM-SHA-102.b)	May 2005	Technical specification
23.	CRT/N	Improved water mill programme, year book 2008 (Basic technical features of the traditional and improved water mills) (The rpm of the shaft ranges from 120-160 and the power output ranges from 0.2kW to 0.5kW and the grinding capacity ranges from 10-20kg maize per hour.)	April 2009	Technical specification
24.	Pioneer Architects and consulting Engineers (p) Limited, Kupondole, Lalitpur	Baseline study of Improved water Mills (IWMs) in Nepal (Draft final report)	April 2011	Baseline
25.	CRT/N	Improved Water Mill Programme (General information regarding programme)	No date	General information regarding implementation
26.	CRT/N	Improved water mill owners booklet (Information regarding information of IWM manufactures, complain letter, completion of project and Guarantee card)	No date	Project implementation

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
27.	CRT/N	Improved water mill end user plan (commercial) (Introduction regarding possible end use)	January 2008	Advantage of project implementation
28.	CRT/N	Improved water mill application form	No date	Project cycle
29.	CRT/N	Improved water mill survey form (general information inquiry sheet regarding applications personal information and technical information of that area)	No date	Project cycle
30.	Ministry of Environment, Government of Nepal	Environment protection act 2053 (published of Ministry of Environment, Government of Nepal) Need to check its relevance to this project.	30/01/1997	<i>Environmental analysis</i>
31.	Nepal law commission	Environment Protection Rules, 2054 (1997), amendment on April 15, 1999) (According to this act, below 50MW for water and energy sector it is not necessary to conduct EIA)	26/06/1997	<i>Environmental analysis</i>
32.	Lokmach Daily	Lokmach Daily (announcement in local newspaper, publish from Surkhet) (scan copy) (Invitation notice published in local newspaper regarding stakeholders meeting.)	03/04/2011	<i>Stakeholder consultation meeting</i>
33.	AEPC	Minutes of meeting (Local stakeholder consultation meeting held in District development committee (DDC) meeting hall, birendranagar, Surkhet)	18/04/2011	<i>Stakeholder consultation meeting</i>
34.	AEPC	Attendance sheet (Local stakeholder consultation meeting – PoA for Promotion of the Improved water mills (IWM) in Nepal)	18/04/2011	<i>Stakeholder consultation meeting</i>
35.	AEPC	Samples of invitation letters regarding Local stakeholder consultation meeting (Nepali and English Translation)	12/04/2011	<i>Stakeholder consultation meeting</i>

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
36.	AEPC	Request mail to Ministry of local development (Local stakeholder consultation meeting) (Scan copy)	29/03/2011	<i>Stakeholder consultation meeting</i>
37.	Intensive study and research centre, Putalisadak, Kathmandu, Nepal	Village development committee (VDC) profile of Nepal (For GPS coordinate), published by Intensive study and research centre.	29/09/2008	<i>GPS coordinate</i>
38.	CRT/N	Improved Water Mill repair and maintenance training manual (Brief information regarding improved water mill, advantages, possible fault and maintenance etc) (IWM and TWM drawings in English version)	2006	<i>Quality control (CAR 9)</i>
39.	District Improved water mill association (Sindhupalchowk) CRT/N	Improved Water Mill repair, maintenance and gender awareness training	17-19/09/2008	<i>Quality control (CAR 9)</i>
40.	AEPC	Emission reduction right transfer from improved water mill owners to AEPC (template letter)	No date	<i>Emission reduction right transfer</i>
41.	Ranila Rana and Sweata Sijapati (KU)	Role of Improved water mill for agro processing in Kavre Palanchowk District	August 2009	
42.	CRT/N	Success story of water millers	December 2008	<i>Success story from IWM owner</i>
43.	CRT/N	IWM installation completion Certificate	No date	<i>Project cycle</i>
44.	CRT/N	IWM request form	No date	<i>Project cycle</i>

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
45.	CRT/N	IWM subsidy/loan progress report (feasibility form)	No date	<i>Project cycle</i>
46.	Gramin Urja Tatha Pravidhi sewa Kendra Pvt. Ltd. (RETSC), Kathmandu	Final report on “Long shaft Improved water mill installation training to the technicians of IWM service centre”	February 2007	<i>Quality control</i>
47.	Gramin Urja Tatha Pravidhi sewa Kendra Pvt. Ltd. (RETSC), Kathmandu	A Training completion report on “Repair and maintenance training of IWMs for Ghatta Owners 2006, December 29-02 January, 2007 (Chautara, Sindhupalnchok)	January 2007	<i>Quality control</i>
48.	CRT/N	Training Report on “Organization management training for water mill association”, Ramechhap		<i>Quality control</i>
49.	CRT/N	Report on gender baseline survey in water mill (Ghatta) Pocket areas (estimated total TWM and low efficiency and tendency to go Diesel mill)	February 2004	<i>Supporting documents</i>
50.	CRT/N	Fact sheet on Improved water mill (IWM) Programme (regarding operational life time of IWM (10 years))	No date	<i>Supporting documents</i>
51.	GTZ and CRT/N	IWM promotion and dissemination expansion programme in Nepal (Traditional and IWM comparison)	April 2000	<i>Supporting documents regarding technical details</i>
52.	AEPC	CDM project activity (CPA) implementation schedule (AEPC) and confirmation that each CPA will be within the threshold of 5 MW – (Signed declaration)	15/11/2011	<i>Project activity</i>

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
53.	AEPC	IWM PoA implementing agency (signed declaration, AEPC is implementing agency for all CDM program of activity (CPAs) of this PoA)	16/11/2011	<i>Supporting document for implementing agency</i>
54.	AEPC	Signed Declaration letter regarding promotion of the improved cooking stove (IWM)-Nepal-CPA-1 is neither registered as an individual CDM project activity nor is part of another registered PoA (from AEPC)	16/11/2011	
55.	AEPC	Signed declaration of Tentative Implementation plan year wise for IWM PoA	23/11/2011	
56.	GTZ/ CRT/N	Improvement of water mills (Ghattas) in Hilly areas of Nepal for Rural applications (an overview)	April 2000	
57.	DNA mail	E-mail confirmation from Nepal DNA regarding "Government of Nepal has no formal process and instruction to the project participant to organise the stakeholder consultation".	20/11/2011	
58.	Mr. Raju Laudari Manager, Climate and carbon Unit Alternative Energy Promotion Center/Ministry of Environment Government of	<ol style="list-style-type: none"> 1. Diploma in Environment and energy management (Master of Science January 26, 2011, From Universiteit twente, Netherland)) 2. Master's Degree in Humanities and social sciences in Economics November 22, 2001, Tribhuvan University, Nepal) 3. Certificate "Research Fellow assisting SDM on matters related to programme of activities" (02 February to 26 June 2009, UNFCCC) 4. Training Participation certificate "Formulating proposals for CDM Projects" 10 March to 11 April 2008. 		

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
	Nepal Khumaltar, Lalitpur	5. Certificate of Professional development and training course on “Management and Implementation of development projects, 24 th October to 11 th November 2005, Asian Institute of Technology, Thailand.		
59.	Mr. Sandeep Joshi Carbon Mitigation Program Officer (CMPO) Climate & Carbon Unit (CCU) Alternative Energy Promotion Center/Ministry of Environment Government of Nepal Khumaltar, Lalitpur	1. Bachelor of Engineering in the field of “Electrical and electronic engineering” September 17, 2006, kathmandu University. 2. Certificate of completion Training on CDM and Carbon Financing, July 28-30, 2009, SNV/Nepal 3. Certificate of Participation on “Training on Kitchen performance Testing” August 9-13, 2010, Dhulikhel, kavrepalanchok, Nepal		
60.	Lumin Kumar Shrestha (Director, CRT/N, IWM Programme)	Diploma in Agriculture science (The university college of Wales, Aberystwth)	1973	
61.	Mahendra Chudal (Manager, IWM	Bachelors of Engineering (Electrical and electronics)	20/08/1998	

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
	Programme)			
62.	Biplav Kafle (Programme Officer)	Bachelors of Engineering (Electrical and electronics)	16/07/2007	
63.	Milan Shrestha (Field facilitator)	Diploma in Engineering (Mechanical Engineering)	21/01/2007	
64.	National Planning Commission, Government of Nepal	National commission 8 th plan (http://www.npc.gov.np/en/plans-programs/detail.php?titleid=16) (1992-1997)	No date, please refer webpage	
65.	National Planning Commission, Government of Nepal	National commission 9 th plan (http://www.npc.gov.np/en/plans-programs/detail.php?titleid=17) (1997-2002)	No date, please refer webpage	
66.	National Planning Commission, Government of Nepal	National commission 10 th plan (http://www.npc.gov.np/en/plans-programs/detail.php?titleid=18) (2002-2007)	No date, please refer webpage	
67.	SNV/Nepal	Programme support to Nepal's renewable Energy Sector (IWM programme initiation)	December 2001	
68.	CRT/N	Improved water mill programme plan (January 2007 to January 2009) (brief history of IWM)	January 2007	
69.	Government of	Joint Financing arrangement between the Ministry of Foreign affairs of	15/03/2007	Supporting

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
	Nepal, Ministry of foreign affairs of Norway and Ministry of Foreign affairs of Denmark	Denmark; The ministry of Foreign Affairs of Norway; Collectively referred to as “Donors” and Government of Nepal for “The Energy Sector Assistance Programme (ESAP II)”		documents for ESAP phase II starting and end
70.	AEPC	Alternative energy promotion centre, establish and operational bill (Submitted to ministry for approval) (AEPC will be independent organization and it will have its mandatory, responsibility and right, formation of working group and quality and control measures)	2011	
71.	AEPC	Signed Letter from AEPC (CME) confirming that the “PoA for Promotion of the Improved Water Mills (IWM) in Nepal” is a voluntary coordinated action	12/10/2011	<i>Project activity</i>
72.	AEPC	Letter from AEPC confirming that AEPC is the CME of the “PoA for Promotion of the Improved Water Mills (IWM) in Nepal” and that the IWMS included under the 1 st CPA are not part of any other registered PoA or registered CDM project activity.	12/10/2011	<i>Project activity</i>
73.	UNFCCC	List of LDC countries http://unfccc.int/cooperation_and_support/ldc/items/3097.php		<i>Additionality & eligibility criteria</i>
74.	CRT/Nepal	A report on quality awareness workshop (IWM Programme)	November 2010	quality
75.	AEPC/ESAP	Contract for the operation of AEPC/ESAP/RRESC (January 1 st to June 2011 activities)	7/03/2011	
76.	Alternative energy promotion centre	Renewable Subsidy Energy Policy, 2000	10/2000	

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Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or submission date(dd/mm/yyyy)	Additional Information (Relevance in CDM Context)
	(AEPC)			
77.	AEPC	PoA DD version 04 dated 20/05/2013	20/05/2013	
78.	UNFCCC	Glossary of CDM Terms		
79.	DNA	Letter of Approval from DNA	19/05/2013	
80.	Govt of Nepal	Letter from Ministry of Environment, Science and Technology (Government of Nepal) for baseline study of water mills in Nepal	14/05/2012	To validate the baseline of the PoA-DD
81.	AEPC	CME manual	15/06/2013 (date of submission)	To validate the management system of the PoA-DD.
82.	AEPC	Modalities of Communication		
83.	AEPC	Revised POA DD version 05	12/09/2013	
84.	AEPC	Revised CPA-DD version 05	12/09/2013	
85.	AEPC	Revised POA DD version 06	12/11/2013	
86.	AEPC	Revised CPA-DD version 06	12/11/2013	
87.	AEPC	Final POA DD version 08	03/08/2015	
88.	AEPC	Final CPA-DD version 08	03/08/2015	
89.	UNFCCC	AMS I A version 16	EB 69	Methodology
90.	AEPC	Emission reduction calculation excel sheet "A7 - IWM_ER Calculation03082015"	Submitted on 03/08/2015	Project activity



South Asia

Annex 3

Appointment Certificates



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Tekchandani, Praveen fulfills the requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	ISO-14064-1: 2006	Other
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Qualification as						
Status	Validator	Verifier	ATL	Technical Reviewer	Financial Expert	Technical Expert
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TA (s)	3.1					

Country Expertise						
Region	1	2	3	4	5	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Further countries						

Technical Area
3.1_Energy demand

This appointment is valid until 31.01.2016 and is bound by internal requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0043/005.

Date	Signature
01/01/2015	

IS-CMS-CB-POG-01/05, version 03

TUV®



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Agarwal, Nikunj fulfills the requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	ISO-14064-1: 2006	Other
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Qualification as						
Status	Validator	Verifier	ATL	Technical Reviewer	Financial Expert	Technical Expert
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TA (s)	1.2, 3.1, 13.1.					

Country Expertise						
Region	1	2	3	4	5	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Further countries						

Technical Area
1.2_Renewables
3.1_Energy demand
13.1_Solid waste and waste water

This appointment is valid until 31.01.2016 and is bound by internal requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0001/006.

Date	Signature
01/01/2015	

IS-CMS-CB-POG-01/05, version 03

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South Asia

CERTIFICATE OF APPOINTMENT

Mr. Murty, Eswar fulfills the requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	ISO-14064-1: 2006	Other
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Qualification as						
Status	Validator	Verifier	ATL	Technical Reviewer	Financial Expert	Technical Expert
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TA (s)	1.2, 3.1, 6.1, 13.1					

Country Expertise						
Region	1	2	3	4	5	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Further countries						

Technical Area
1.2_Renewables
3.1_Energy demand
6.1_Construction
13.1_Solid waste and wastewater

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Your Certificate has the internal reference no. CB-IND-CCP-0031/006.

Date	Signature
01/01/2015	

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