



**CLEAN DEVELOPMENT MECHANISM
SMALL-SCALE PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM-SSC-PoA-DD) Version 01**

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NOTE:

- (i) This form is for the submission of a CDM PoA whose CPAs apply a small scale approved methodology.
- (ii) At the time of requesting registration this form must be accompanied by a CDM-SSC-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-SSC-CPA-DD (using a real case).



SECTION A. General description of small-scale programme of activities (PoA).

A.1 Title of the small-scale programme of activities (PoA):

CDM Africa Small Scale Hydro PoA for Southern Africa

Version Number: 2

Date: 31 August 2012

The version history of the PoA DD is presented below:

Table 1: PoA DD version History

Date and Version Number	Activity
18 October 2011 Version 01	Submit PoA documentation for validation
[Insert date and version number]	
[Insert date and version number]	

A.2. Description of the small-scale programme of activities (PoA):

After a brief background, the following information is included here:

1. General operating and implementing framework of PoA
2. Policy/measure or stated goal of the PoA
3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity.

BACKGROUND

According to the World Bank:

“Africa has the lowest electrification rate of all the regions at 26% of households, meaning that as many as 547 million people are without access to electricity. On current trends less than half of African countries will reach universal access to electricity even by 2050. Without access to electricity services, the poor are deprived of opportunities to improve their living standards and the delivery of health and education services is compromised when electricity is not available in clinics, in schools and in the households of students and teachers.

Generation capacity in Africa at 39 MW per million populations is about one tenth of the levels found in other low income regions and some 30 African countries have been experiencing frequent outages and load shedding. High-cost and unreliable energy services in Africa have become a significant drag on economic growth and competitiveness in the region. The economic value of power outages can amount to as much as 2 percent of GDP for countries affected.



The total financing needs for Africa to resolve the power supply crisis are of the order of approximately US\$40 billion per annum or 6.4 percent of region's GDP. This is the cost of expanding generation capacity by 7,000 MW per annum to achieve demand-supply balance, extending cross-border transmission to enable regional trade, and raising electrification rates by 10 percentage points. Currently, the region spends only about \$11 billion per annum (or just over a quarter of what is required) leaving a financing gap of about \$30 billion"¹

In Southern Africa, the South African Power Pool is responsible for the supply of electricity in the great majority of countries. Its statistics from 2010 show the following:

Table1: SAPP EXISTING GENERATION STATIONS

SAPP UTILITY GENERATION MIX , MW												
Technology / Utility	BPC	EDM	ENE	ESCOM	Eskom	LEC	NamPower	SEC	SNEL	TANESCO	ZESA	ZESCO
Base Load												
Hydro	-	498	760	286	2,000	72	240	63	2,442	561	750	1,802
Coal	132	-	267	-	37,831	-	132	9	-	-	1,295	-
Nuclear	-	-	-	-	1,930	-	-	-	-	-	-	-
CCGT	-	-	160	1	-	-	-	-	-	485	-	-
Distillate	70	51	-	-	2,409	-	21	-	-	78	-	10
Total	202	549	1,187	287	44,170	72	393	72	2,442	1,124	2,045	1,812

SAPP UTILITY GENERATION MIX , %												
Technology / Utility	BPC	EDM	ENE	ESCOM	Eskom	LEC	NamPower	SEC	SNEL	TANESCO	ZESA	ZESCO
Base Load												
Hydro	0%	91%	64%	100%	5%	100%	61%	88%	100%	50%	37%	99%
Coal	65%	0%	22%	0%	86%	0%	34%	13%	0%	0%	63%	0%
Nuclear	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
CCGT	0%	0%	13%	0%	0%	0%	0%	0%	0%	43%	0%	0%
Distillate	35%	9%	0%	0%	5%	0%	5%	0%	0%	7%	0%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

As is evident from the above and the chart below, coal is still the overwhelming fuel source for electricity generation in the region²:

¹ See AFRICA ENERGY POVERTY G8 Energy Ministers Meeting 2009 Rome, May 24-25, 2009: World Bank report at http://www.g8energy2009.it/pdf/27.05/G8_Africa_Energy_Poverty_May9_Final_JS_clean.pdf

² For all the above see <http://www.sapp.co.zw/docs/R9%20-%20SAPP%20Statistics%20-%202010.pdf> and <http://b-dig.iie.org.mx/BibDig/P06-0510/files/PESGM2006-001330.PDF>

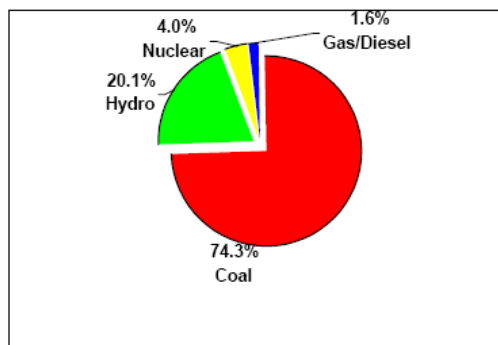


Figure-2. Generation Mix by Technology

While it is evident that hydro power has made some headway in lowering Southern Africa's reliance on fossil fuels, the suppressed electricity demand and funding gap for energy more generally has caused many hydro projects not to progress past the planning stage: the Southern Africa regional climate change programme states that:

*"the Southern African Power Pool (SAPP) integrated expansion plans include more than 6,300 MW of new large scale hydropower between 2010 and 2015, and at least another 6,500 MW are under discussion within the Zambezi River basin alone, but are not funded."*³

The focus of this PoA is to secure carbon finance to assist with the funding from small-scale, run of river/ existing reservoir without volume increase, hydro projects in Southern Africa.

The coordinating & managing entity "PoA Africa Hydro (Pty) Ltd has initiated the proposed CDMA Small Scale Hydro PoA for Southern Africa to promote the development and implementation of small-scale hydro projects, with the objective to contribution towards increased generation of renewable energy in Southern Africa.

1. General operating and implementing framework of PoA

The programme of activities (hereafter referred to as "the PoA") is an initiative for the implementation of small scale hydro projects generating electricity into the respective national grids across Southern Africa. The following countries are involved:

South Africa (first CPA), Swaziland, Zimbabwe, Mauritius

The intention is to later on add the following countries to the PoA: Angola, Botswana, DRC, Lesotho, Malawi, Mozambique, Madagascar, Namibia, Seychelles, Tanzania, and Zambia

Each CDM programme activity (SSC-CPA) will be implemented in a geographically distinct area within Southern Africa. The PoA and the inclusion of each CPA will be managed by a managing/coordinating entity (CME) called PoA Africa Hydro (Pty) Ltd.

³http://www.rccp.org.za/index.php?option=com_content&view=category&layout=blog&id=175&Itemid=344&lang=en



The emissions source that the PoA is seeking to off-set in each case is CO₂ emissions from fossil fuels used to generate grid connected electricity in the national grid or regional grid of the host country. Emissions from existing reservoirs will not be taken into account due to the fact that the PoA will only include projects where there is no increase in the volume of the existing reservoir. Emissions in the baseline and project activity are thus deemed to be the same.

The monitoring equipment in each instance will be electricity meters that will be calibrated periodically in accordance with the manufacturer's instructions.

It is anticipated that technology transfer will take place in most CPA's. Technology is likely to be sourced from Annex 1 countries in Europe or from non-Annex 1 countries like India and/or China. It is further anticipated that, during the currency of the PoA, the technology may start to be manufactured within the region to which the PoA applies.

The project will be open to CPA's with a maximum installed capacity of 15 MW. In order to ensure that the ex ante estimation of emissions reductions is not overstated, the CME will in all cases where an expert report on likely energy yield is available ensure that the emissions reduction calculation corresponds to the content of the expert report's P90 findings. In cases where no such expert report is available the CME will ensure that the emissions reductions are calculated conservatively with reference to the available data and international experience on the likely availability of the technology to be installed.

The PoA will be open to projects that choose to use Engineer, Procure and Construct Agreements as well as projects who do not choose to use this structure.

2. Policy/measure or stated goal of the PoA

The objective of the Hydro Programme of Activities for Southern Africa is to develop a multi-track platform for overcoming regulatory, institutional, financial and structural hurdles for the roll-out of hydro power by providing access to carbon finance. Thus, whether projects are pursued under a government procurement programme, a Renewable Energy Feed Tariff Scheme, under a private PPA with wheeling through the grid or for own use to displace grid electricity, the Hydro Programme of Activities intends to provide a platform that can leverage carbon finance to overcome the barriers mentioned above.

To reach the stated goal, the CME will raise awareness among developers on opportunities for generating CDM revenues and provide standardized and streamlined access to CDM services for renewable energy projects in Southern Africa. The CME will ensure that CPA's are eligible before joining, coordinate the inclusion of the CPA's in the PoA, conduct the inclusion to the PoA of the CPA's, provide monitoring and verification services to all CPAs, and support the effective commercialization of CERs. Over time, additional services may be added to support the effective development of the renewable energy sector across the host country.

In this way, the renewable energy PoA will promote the development of renewable energy hydro projects and facilitate the mitigation of greenhouse gas (GHG) emissions through displacement of electricity generated by grid connected power plants that contain a majority of fossil-fuel fired installations.

The PoA will contribute to sustainable development in the region in the following manner:



Social benefits:

- Temporary and permanent jobs will be created in the construction and operation phases of the CPA projects;
- There will be an opportunity to improve skills levels as the need for local labour to operate and maintain the installations grows.

Environmental benefits:

- The PoA encourages the development of renewable energy plants that either meet the suppressed energy demand and alleviates energy poverty and /or replaces non-renewable energy (typically energy generated from fossil fuels) and reduces emissions of pollutants (per unit of energy generated) including GHG emissions;
- In contrast to most other sources of power, hydro power does not produce solid waste to a large extent, which addresses the problem of solid waste disposal encountered by most other sources of power.
- When used to generate electricity, renewable energy contributes to natural resource conservation, for instance coal.

Economic benefits:

- The PoA CPA's will create the opportunity for communities who do not have access to electricity to create economic growth once electricity is available.
- The PoA increases employment opportunities in the area where each CPA is located, leading to a general increase in local-community income.
- The PoA/CPA enhances the local investment environment and improves the local economy.

3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity

The proposed PoA is a voluntary action by the private initiative PoA Africa Hydro (Pty) Ltd.

4. Prior consideration

A project idea note (PIN) for this PoA together with a PIN's for the first CPA was submitted to the South African Designated Authority on 19 October 2011. No projects have been implemented under this programme and installations will only commence at the earliest once the programme has been published for global stakeholder comment - in line with the decisions of EB47.

A.3. Coordinating/managing entity and participants of SSC-POA:

Coordinating or managing entity of PoA as the entity which communicates with the Board



The Coordinating or Managing entity of the PoA will be CDM Africa Hydro (Pty) Ltd. The contact details are as listed in Annex 1.

Project participants under the POA

Name of Party involved (*) ((host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
Host Party South Africa	CDM Africa Climate Solutions (Pty) Ltd	No
Host Party South Africa	PoA Africa Hydro (Pty) Ltd	No
Host Party Swaziland		No
South Africa Zimbabwe		No
Host Party Mauritius		No



A.4. Technical description of the small-scale programme of activities:

The PoA promotes the implementation of run of river/existing reservoir without volume increase, renewable energy hydro power technology in Southern Africa.

A.4.1. Location of the programme of activities:

South Africa (first CPA); Zimbabwe; Swaziland, Mauritius

Time does not permit to get Letters of Approval from other countries now but the intention is to expand the PoA later to include also Angola, Botswana, DRC, Lesotho, Mozambique, Malawi, Madagascar, Namibia, Seychelles, Tanzania, and Zambia

A.4.1.1. Host Party(ies):

Republic of South Africa, Zimbabwe; Swaziland and Mauritius

The intention is to expand later to Angola, Botswana, DRC, Lesotho, Mozambique, Malawi, Madagascar, Namibia, Seychelles, Tanzania, and Zambia

A.4.1.2. Physical/ Geographical boundary:

Figure 1: Southern Africa [Source: Google maps]



The island state of Mauritius does not appear clearly and are shown separately below:

Figure 2(a) and (b): Island state of Mauritius [Source: Google maps]



A.4.2. Description of a typical small-scale CDM programme activity (CPA):

All CPAs under the PoA will be small scale run of river/existing reservoir without increase in volume, hydro power plants with an installed capacity below or equal to 15 MW. No new reservoirs will be built. Hydro power plants use the potential energy stored in water reservoirs or the natural course of rivers to produce electricity. The power plants will be grid connected. Although detailed technical characteristics will differ, the following general conditions will apply for all CPAs:

- All CPA's will be run of river or will use existing reservoir infrastructure without increase in volume;
- No new water reservoirs will be built under any CPA;
- From the water intake the water flow is diverted to the power plant, always leaving a minimum ecological flow to the natural river bed;
- The water is conducted through a penstock to the power house;
- In the power house one or more turbines and suitable generator(s) are located;
- From there the plant connects to the next nearby substation through a new or existing power line;
- A discharge channel returns the water to the natural river bed.

All CPA's will apply AMS 1.D and will be capped at the installed capacity of the first phase.

An implementation timeline will be provided to the validating DOE in the CPA PDD under Section A.2.



A.4.2.1. Technology or measures to be employed by the SSC-CPA:

- The CPAs will be run of river or will use existing reservoir infrastructure without increase in volume.
- No new water reservoirs will be built under any CPA.
- The generation capacity of the CPA will not exceed 15 MW.
- From the water intake the water flow is diverted to the power plant, always leaving a minimum ecological flow to the natural river bed.
- The main infrastructure will include a weir and an intake structure, desander or sluiceway/spillway, headrace, surge tank, penstock, powerhouse and tailrace.
- One or more turbines, generator(s) and a control system will be located in the powerhouse.
- In some cases, CPAs may involve capacity expansions. These will be treated as greenfield facilities in the PoA.

A.4.2.2. Eligibility criteria for inclusion of a SSC-CPA in the PoA:

The eligibility criteria developed in the table below are based on the requirements in the “Standard For The Development Of Eligibility Criteria for the inclusion of a Project Activity as a CPA under the PoA”, Version 01.0, EB65 and the applicability criteria of AMS I.D and the “Tool to calculate the emission factor for an electricity system”. To demonstrate that the CPA complies with the eligibility criteria, supporting documentation has to be provided to the CME and to the DOE at validation. The supporting documentation required is indicated in the second column of the table below.

The criteria for demonstrating additionality of a CPA shall be described in section E.5.

The CPA will be assessed against this list of criteria by the CME at the time when the CPA applies to enroll in the POA



Table 2: Description of eligibility criteria for CPAs

	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
1	The renewable energy power plant (the CPA) must be grid connected to the national grid of one of the host countries ⁴ .	CPA operator: Provide the GPS coordinates of the proposed CPA site as Addendum A to the PoA application submitted to the CME. The CPA operator must provide the design electrical reticulation system or the draft Distribution connection and use-of-system agreement with generators or communication document with the grid operator (utility) to demonstrate that the power plant will be grid connected.	CME: Checks the GPS coordinates and confirms that it falls within the boundaries of one of the host countries before considering the CPA for PoA inclusion. The CME checks the electrical reticulation design and confirms that the power plant is grid connected.
2	The CPA operator must demonstrate that double accounting does not occur with the particular CPA ⁵ . The CME will check that the CPA is not included in another PoA or registered as a single project activity.	<ol style="list-style-type: none"> 1. Provide the GPS coordinates of the proposed CPA site as Addendum A to the PoA application submitted to the CME. 2. Confirms that the CPA is not part of another PoA or a CDM individual project activity. 3. Submit a resource assessment report specifying likely energy yield, done by an independent and credible expert, for the actual equipment that is to be installed and for the installed capacity that is to be built; 	<ol style="list-style-type: none"> 1. Do a site visit with or without validators to the site as per the GPS co-ordinates supplied by the CPA For greenfield projects: 2. Ensure no other project activity pre-exists on the site 3. Check whether there is an existing reservoir and if yes, establish the GPS co-ordinates for the existing reservoir.

⁴ Criteria is constructed based on 14(a) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA”.

⁵ Criteria is constructed based on 14(b) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo)”.



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	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
		4. Provide the start date of the crediting period based on the project plan, 5. Provide the end date of the crediting period (based on the start date of the crediting period).	
3	<p>The CPA must implement a renewable energy hydro plant at a site where there was no renewable energy hydro power plant operating prior to the implementation of the project activity (Greenfield plant) but where there may have been an existing reservoir;</p> <p align="center">OR</p> <p>The CPA can involve a capacity addition⁶ to a run of river plant or plant using an existing reservoir⁷.</p> <p>The hydro power plant should^{8,9}</p>	<p>The following documentation can be submitted to the CME as supporting documentation:</p> <ul style="list-style-type: none"> -Environmental Impact Assessment of the proposed CPA; -Technical Feasibility Study of the proposed CPA; -Record of Decision issued by the Department of Environment for the proposed CPA; -Detailed Design Drawings of the project submitted to the local authorities, -Contractual agreement (if applicable) in the case that electricity is supplied to an identified consumer facility via the national grid. 	<p>The CME will check the documentation submitted by the CPA operator and will confirm the following:</p> <ol style="list-style-type: none"> 1. The CPA is the implementation of a renewable hydro power plant; 2. The CPA is grid connected.

⁶ A capacity addition is an increase in the installed power generation capacity of an existing power plant through: (i) The installation of a new power plant besides the existing power plant/units; or (ii) The installation of new power units, additional to the existing power plant/units. The existing power plant/units continue to operate after the implementation of the project activity.

⁷ According to criteria number (3) in AMS I.D.

⁸ Criteria is constructed based on: 14(i) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)”;



	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
	<p>(a) supply electricity to a national or a regional grid; or</p> <p>(b) supply electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p> <p>[Note that this criteria covers the relevant Applicability Criteria from AMS 1.D¹⁰.</p>	<p>The CPA is:</p> <p>[delete the options below that are not applicable to the project activity]:</p> <p>Grid-connected greenfield hydro power plant at a site where no renewable power plant was operated prior to the implementation of the project activity, supplying electricity to a national or a regional grid;</p> <p>OR</p> <p>Grid-connected greenfield hydro power plant at a</p>	

⁹ Criteria is constructed based on 14(c) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “The specifications of technology/ measure including the level and type of service, performance specifications including compliance with testing/ certifications”

¹⁰ AMS I.D applicability criteria number 1(a) and (b): This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:¹⁰

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

AND

Applicability criteria for the “Tool to calculate the emission factor for an electricity system”.

This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).



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	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
	<p>Note that the following project activities are not included in the PoA: Project activities that involve a retrofit of (an) existing plant(s); or involve a replacement of (an) existing plant(s)¹¹.</p> <p>No Combined heat and power (co-generation) systems are participating in the PoA¹².</p>	<p>site where no renewable power plant was operated prior to the implementation of the project activity, supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling;</p> <p>OR</p> <p>The CPA involves a capacity addition to a run of river plant or plant using an existing reservoir and supplies electricity to a national or a regional grid;</p> <p>OR</p> <p>The CPA involves a capacity addition to a run of river plant or plant using an existing reservoir and supplies electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>	
4	If a CPA involves the addition of hydro generation units at an existing hydro power generation facility, the added capacity of the	CPA: Provide the CME with the resource study by done by an independent and credible expert, for the actual equipment that is to be installed and	CME: Ensure the installed capacity will be below 15 MW.

¹¹ Aligned with Applicability condition numbers (3) and (8) of AMS I.D.

¹² Aligned with Applicability condition number (6) of AMS I.D.



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	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
	<p>units added by the CPA will be less than 15 MW and will be physically distinct¹³ from the existing units.</p> <p>[Note for explanatory purposes: Physically distinct units are those that are capable of generating electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility.]</p>	<p>for the installed capacity that is to be built.</p>	
5	<p>The CPA must demonstrate that the hydro technology that will be implemented complies with the relevant international or local quality standards¹⁴.</p>	<p>CPA operator: When submitting the PDD to the CME, provide the relevant equipment certificate that confirms that the equipment complies with an acceptable international or host country standard.</p>	<p>CME: Checks whether the CPA operator has submitted the relevant documentation when submitting the PDD.</p>
6	<p>The CPA operator will provide documentary evidence of real action towards the CPA in order to motivate the start date¹⁵.</p>	<p>If the start date has occurred, the CPA operator will provide documentary proof of real action towards the CPA in line with the EB guidelines.</p> <p>For example, that the deposit was made for the</p>	<p>CME will record the start date of the CPA and confirm that a document check has been done. The information will be available to the DOE at validation.</p>

¹³ Physically distinct units are those that are capable of generating electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility. For example, the addition of a steam turbine to an existing combustion turbine to create a combined cycle unit would not be considered “physically distinct”.

¹⁴ Criteria is constructed based on 14(c) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “The specifications of technology/ measure including the level and type of service, performance specifications including compliance with testing/ certifications”

¹⁵ Criteria is constructed based on 14(d) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “Conditions to check the start date of the CPA through documentary evidence”.



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	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
		equipment.	
7	<p>The CPA operator must demonstrate that the project is additional as per Section E.5. in the PoA-DD.¹⁶</p> <p>Note: For the Investment analysis the benchmark approach is applied with equity IRR as the parameter that should be determined;</p> <p>The CPA operator must complete Section B.3 of the CPA-DD and provide all the required evidence to demonstrate that the proposed CPA is additional.</p>	<p>The process and documents required are detailed in section E.5 below and in section B.3 of the CPA DD.</p>	<p>The CME will check the information and evidence provided by the CPA operator and confirms additionality before submitting the CPA to the DOE for inclusion in the PoA.</p>

¹⁶ Criteria is constructed based on 14(f) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality;



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	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
8	<p>The CPA must submit a Project Idea Note to the Host Country DNA as a public consultation mechanism¹⁷.</p> <p>The CPA must carry out an EIA assessment in the format required by the Host Country law, as it exists at the time of CPA inclusion.</p> <p>In the case where the project is exempt from conducting an EIA under the Host Country law, public participation must still occur through the liaison with the DNA and liaison with at least the CPA project neighbours and local municipality.</p>	<p>CPA operator:</p> <ol style="list-style-type: none"> 1. Complete PIN and submit to the Host Country DNA. Provide a copy of the PIN and confirmation that the Host Country DNA has received the PIN to the CME. 2. Submit the information regarding the EIA status to the CME when the application to participate in the PoA is submitted to the CME. 3. If the CPA is exempt from conducting an EIA, the CPA operator must provide documented evidence to the CME that confirms that stakeholder participation was conducted that covered the CDM component of the project activity. 	<p>CME:</p> <ol style="list-style-type: none"> 1. Check the confirmation received by the CPA operator from the Host Country DNA to confirm that the PIN was submitted. 2. Check the EIA information submitted by the PoA operator and confirm that the relevant public consultation has been conducted. <p>The CME will check that sufficient opportunity was allowed for stakeholders to communicate concerns and comments regarding the implementation of the project activity under CDM to the CPA operator and that relevant concerns and comments relating to CDM were addressed.</p>
9	Where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys;	No sampling will be done within any specific CPA and a sampling procedure will be provided to the DOE to select a sample of CPAs for verification purposes.	
10	Where applicable, the conditions that ensure that CPA in aggregate meets the small-scale or	CPA: Provide evidence that the CPA is in an LDC and under 5 MW installed	CME: Check documents

¹⁷ Criteria is constructed based on 14(g) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “The PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;



**SMALL-SCALE CDM PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM SSC-PoA-DD) - Version 1.0**

	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
	<p>micro-scale threshold criteria (please refer to the latest approved version of the “Guidelines for demonstrating additionality of microscale project activities” and the latest approved version of the “General Guidelines to SSC CDM methodologies” and remain within those thresholds throughout the crediting period of the CPA;</p>		
11	<p>Where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories (please refer to the latest approved version of the “Guidelines on assessment of debundling for SSC project activities”);</p>	<p>The debundling check is conducted before the CPA can be incorporated into the PoA. The CME evaluates the information submitted by the CPA in the PDD and confirms that the small-scale or micro-scale CPA is not an unbundled component of a larger project.</p> <p>The CME will check to establish if there is a registered small scale CPA or an application to register another small-scale CDM project activity that:</p> <p>(a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and</p> <p>(b) The boundary is within 1 km of the boundary of the proposed small-scale CPA at the closest point.</p> <p>If the CPA is managed by project participants that</p>	<p>CME:</p> <ol style="list-style-type: none"> 1. check to establish if there is a registered small scale CPA or an application to register another small-scale CDM project activity that: <ol style="list-style-type: none"> (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure <p>If “no”, end if inquiry, if “yes” proceed</p> (b) has a boundary within 1 km of the boundary of the proposed small-scale CPA at the closest point. <p>If “no”, end if inquiry, if “yes” proceed</p>



**SMALL-SCALE CDM PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM SSC-PoA-DD) - Version 1.0**

	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
		<p>are only taking part in one CPA, it can be inferred that the CPA does not have the same project participants with any other CPAs (first criteria), thus verifying that the CPA is not a debundled component of another CPA.</p> <p>If the CPA is managed by project participants that are participating in more than one CPA, the CPA will confirm and demonstrate in the CPA-PDD that one or more of the above criteria for debundling are not met and therefore the proposed CPA is not a debundled component of a larger project.</p> <p>Finally, if the CPA meets all the criteria for debundling, it will indicate within their CPA-PDD that the small-scale CPA falls within the scope of “Renewable energy project activities with a maximum output capacity equivalent to up to 15 Megawatts (or an appropriate equivalent)” as stated in paragraph 6 (c) of the decision 17/CP.7. This is in line with Appendix C of the Simplified Modalities and Procedures for Small-Scale CDM project activities, which states that, “if a proposed small-scale project activity is deemed to be a debundled component, but the total size of such an activity combined with the previous registered small-scale CDM project activity does not exceed the limits for small-scale CDM project activities as set in paragraph 6 (c) of</p>	<p>(c) Check that the aggregate size of the projects in question do not exceed 15 MW</p> <p>If “yes”, debundling check is passed, if “no” debundling check is failed and CPA is not eligible for PoA inclusion</p>



**SMALL-SCALE CDM PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM SSC-PoA-DD) - Version 01.0**

	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
		the decision 17/CP.7, the project activity can qualify to use simplified modalities and procedures for small-scale CDM project activities.” /	
12	No ODA will be diverted as a result of the CPA ¹⁸ .	CPA Operator: Confirm whether public funding is used in the CPA. If public funding is used, the CPA operator has to provide evidence and declare that the public funding is not a diversion of ODA.	CME: If public funding is used in the CPA, the CME will check and confirm that the public funding is not a diversion of ODA. The CME will file the document evidence for example the declaration provided by the CPA operator.
13	The CPA must be a voluntary initiative by the CPA operator and not the implementation of any mandatory policy or regulation.	CPA operator: Confirm that the CPA is a voluntary initiative and not the implementation of a mandatory policy or regulation and submit a declaration in this regard when submitting an application form to the CME to participate in the PoA.	CME: File the declaration submitted by the CPA operator as evidence in the database. The CME will avail itself of all regulatory developments in this regard and check that indeed the confirmation by the CPA is correct.
14	The CPA will be run-of-the river or will utilize existing reservoir with no change in the volume of the reservoir - no new reservoirs will be built ¹⁹ .	CPA: Sign CME-CPA agreement including a clause in terms of which the CPA declares that no new reservoir will be built	CME: During site visit confirm presence of absence of existing reservoir and capture GPS co-ordinates of any existing reservoir that may exist

¹⁸ Criteria is constructed based on 14(h) in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 01.0, EB65 Annex 3 “Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance.”

¹⁹ Criteria constructed based on Applicability condition number (4) in AMS I.D.: Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:



**SMALL-SCALE CDM PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM SSC-PoA-DD) - Version 1.0**



	Criteria for PoA inclusion	Support documentation/evidence that should be provided to the CME by the CPA operator to demonstrate and confirm that the CPA complies with the criteria and is eligible to be incorporated in the PoA	CME Responsibilities
15	No CPAs will co-fire fossil fuel, i.e. the new unit(s) will not have both renewable and non-renewable components. ²⁰	CPA: Sign CME-CPA agreement including a clause in terms of which the CPA declares that no fossil fuels will be co-fired	CME: Inspect feasibility study to ensure no fossil fuels will be co-fired

- The project activity is implemented in an existing reservoir with no change in the volume of reservoir;
- The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²;
- The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m².

²⁰ Criteria aligns with Applicability condition number (5) in AMS I.D: If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.



If version 17.0 of AMS 1.D applied by the PoA is revised or replaced, subsequent to being placed on hold, PoA Africa Hydro (Pty) Ltd as the CME shall update the eligibility criteria to the requirements of the revised or new methodology with immediate effect and include them in a new version of the PoA DD and new generic CDM-CPA-DD validated by a DOE, and shall submit it to the Board for approval.

A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality):

The following shall be demonstrated here:

- (i) The proposed PoA is a voluntary coordinated action;
- (ii) If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA;
- (iii) If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;
- (iv) If mandatory a policy/regulation is enforced, the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.

The information presented here shall constitute the demonstration of additionality of the PoA as a whole. (Additionality will be demonstrated for each CPA on CPA level)

As the proposed PoA is a voluntary and coordinated action, the assessment and demonstration of additionality for the PoA as a whole will address points (i) and (ii) above.

Requirement (i): Voluntary Coordinated Action

At present disparate developers in Southern Africa are attempting to develop hydro projects in isolation of one another in the hope of securing finance and also securing a Power Purchase Agreement (“PPA”) that will make the projects bankable. In each case carbon finance would enhance the feasibility of the projects. The carbon finance (CDM) approval process however is expensive and time consuming and developers are in the very difficult position of motivating the spend on CDM not knowing that they will secure finance or a PPA even if the CDM succeeds.

This PoA is a voluntary, coordinated action aimed at speeding up, simplifying and lowering the cost for developers of getting carbon finance (CDM) approval so that they can be assisted to meet reasonable financial return criteria and make projects bankable.

From a country perspective the aim of the PoA is to ensure that international carbon finance supplements domestic funding for hydro projects in order to facilitate the availability of finance and bridge the gap between least cost fossil fuel energy and renewable energy from hydro sources.

There are no mandatory laws or regulations in the host countries stipulating to implement a Renewable Energy Plant or development of a PoA. Likewise, no obligation exists for private entities to utilize or develop renewable energy projects. The proposed PoA can be, therefore, regarded as a voluntary coordinated action.



Requirement (ii): It would not be implemented in the absence of the PoA

According to paragraph 7 in the published “Standard For Demonstration Of Additionality Of GHG Emission Reductions Achieved By A Programme Of Activities, Version 01.0, EB 65, the additionality shall be demonstrated by establishing that in the absence of CDM, none of the implemented CDM Project Activity (CPA) would occur.

As per paragraph 73 of the 47th EB meeting report “additionality is to be demonstrated either at the PoA level or at the CPA level”.

Additionality will be demonstrated at CPA level. This is appropriate since the various prohibitive barriers to small hydro plants in Southern Africa may apply differently to different CPAs under the PoA. If each CPA can demonstrate additionality at CPA level in this manner using the relevant guidance then it can be said that none of the CPA’s under the PoA would occur in the absence of CDM.

In accordance with the provisions of Attachment A to Appendix B of the “Simplified modalities and procedures for small-scale CDM project activities”, the CPA operator can select to prove an investment barrier, a technological barrier, a barrier due to prevailing practice or other barrier/s motivated by the Project Participant. The application of these possibilities to the present PoA will be discussed in section E.5.1 below and in the CPA DD.

Requirement (iii) and (iv): Mandatory policy/regulation

The PoA is not implementing a mandatory policy/regulation and these requirements are thus not applicable.

A.4.4. Operational, management and monitoring plan for the programme of activities (PoA):

A.4.4.1. Operational and management plan:

Description of the operational and management arrangements established by the coordinating/managing entity for the implementation of the PoA, including:

- (i) a record keeping system for each CPA under the PoA,
- (ii) a system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as CDM project activity or as a CPA of another PoA,
- (iii) the provisions to ensure that those operating the CPA are aware and have agreed that their activity is being subscribed to the PoA; and
- (iv) an unbundling check.

The proposed PoA involves a range of operational activities in order to implement and manage each CPA by the coordinating entity CME and CPA implementer within the PoA.



The roles and responsibilities will be as follows:

Table 3: High level Responsibilities for the CME and CPA operator

CME	CPA operator
Ensure all eligibility criteria are met	Implement renewable energy plant project activity (construction, daily operation, and maintenance of power plant)
Maintain existing relationship with the project implementers (e.g. conduct training for data measurements)	Monitoring and recording the plant operation data.
Periodically collect monitoring data.	Maintenance of equipment
Prepare monitoring reports for emission reduction verification.	
Support in validation, registration and verification of the CPA's	
Support in validation, registration and verification of the CPA's	

More detailed responsibilities will appear in the CPA DD documentation.

- (i) A record keeping system for each CPA under the PoA

In order to unambiguously identify the renewable energy plant participating in the PoA, a serial numbering system will be implemented that uniquely identify each power plant through numbers and letter for the CPA and the power facility. The numbering system will indicate each distinct hydro plant with the starting letter “H” followed by a numerical number starting with “001” and following sequentially. This serial numbering system will be used to record baseline and monitoring data on a continuous basis. In this way, the CME entity will be able to track the emission reduction of each power plant over the full duration of the crediting period.

In summary, the CME will record and document CPA detail information as follows:

Table 4: Information that will be recorded for Hydro CPAs

Coutry where the CPA will be implemented
CPA number
CPA operator name, address
Type of equipment
Turbine make
Turbine model
Turbine rated capacity
GPS coordinates of CPA
City/Town/village
Province
Maximum capacity that can be implemented on the site according to environmental approvals
Actual CPA installed capacity (MW)
Commissioning date
Starting date of the crediting period



The verification status (number of verification and associated monitoring period)

The CME will be responsible for the management of records and data associated with each CPA. The database will be updated manually/electronically using the data supplied by the participating power plants. It will form the basis for the verification of CPAs and be available for inspection by the DOE at any point in time.

- (ii) A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA.

The database described above will be used to perform a double accounting check. The procedure to avoid double counting is detailed in criterion 2 of Table 2 above

- (i) The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA;

To ensure that the CPA operator is aware of and have agreed that their activity is being subscribed to the PoA, the project implementer of an CPA shall enter into a contractual arrangement with the coordinating entity including respective provisions that:

- The CPA has not been and will not be registered as a single CDM project activity or as a CPA under another PoA.
- The project implementer is aware that the CPA will be subscribed to the present PoA.
- The project implementer waives its rights to claim and own emission reductions under the Clean Development Mechanism of the UNFCCC or any voluntary scheme to the managing entity of the PoA and accepts that these rights will arise in the name of the CME.

- (ii) Unbundling check

The debundling check is incorporated in criterion 11 of Table 2 above (EB54, annex 13).

A.4.4.2. Monitoring plan:

The CPA DD contains a monitoring protocol for each CPA under Section B6 and Annex 4 (Monitoring information).

The monitoring plan for parameters included in section E.7.1 will be implemented for each CPA with assistance from the CME as follows:

- The CPA operator will implement its CPA and monitor and record all parameters included in section E.7.1.



- The CME will provide guidance to the CPA owner on what metering is required for the PoA purposes and which data parameters should be collected in regards to emission reductions calculations.
- The CPA owners will provide metering information included in section E.7.1 to the CME, either directly into a database provided by the CME or if the information is provided in spreadsheets or by fax, the information will be entered into the database by the CME.

The CME will document and store all parameters included in section E.7.1 provided by CPA owners in an electronic database, while primary data will be stored by the CPA operator.

Sampling procedure for verification purposes The CME will submit all CPAs for verification to the DOE and the DOE will decide whether to sample and if so, how.

A.4.5. Public funding of the programme of activities (PoA):

No public funding has been used or will be used in the financing of the PoA.

SECTION B. Duration of the programme of activities (PoA)

B.1. Starting date of the programme of activities (PoA):

30 October 2011 or at the date that the PoA is registered, whichever is later.

B.2. Length of the programme of activities (PoA):

28 years 0 months

SECTION C. Environmental Analysis

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken:

Projects (CPA's) are typically unique in their impact on the environment. Moreover, the mere existence of the PoA has no impact on the environment of itself. Domestic law will usually require the assessment of environmental impact by CPA's in any event. For these reasons it is submitted environmental assessment should be done at CPA level.

C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts:

N/a

C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA):



As stated above, each CPA follow domestic national laws in assessing environmental impact

SECTION D. Stakeholders' comments

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:

Projects (CPA's) are typically unique in their impact on stakeholders. Moreover, the mere existence of the PoA has no impact on the stakeholders themselves. Domestic law will usually require the stakeholder engagement. For these reasons it is submitted environmental assessment should be done at CPA level.

D.2. Brief description how comments by local stakeholders have been invited and compiled:

N/A

D.3. Summary of the comments received:

N/A

D.4. Report on how due account was taken of any comments received:

N/A

SECTION E. Application of a baseline and monitoring methodology

This section shall demonstrate the application of the baseline and monitoring methodology to a typical SSC-CPA. The information defines the PoA specific elements that shall be included in preparing the PoA specific form used to define and include a SSC-CPA in this PoA (PoA specific CDM-SSC-CPA-DD).

E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to a SSC-CPA included in the PoA:

AMS I.D./Version 17, Grid connected renewable electricity generation
Sectoral Scope: 01

E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA:

The following table provides a list of the Applicability Criteria as described in AMS I.D and provides justifications how and why the PoA and the underlying CPAs comply with the methodology.

Table 5: Applicability Criteria from AMS-I.D and the "Tool to calculate the emission factor for an electricity system" for CPAs under the PoA

Criteria according to AMS I.D.	Description of how the applicability criteria applies to the PoA and the underlying CPAs
1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: (a) Supplying electricity to a national or a regional grid; or (b) Supplying electricity to an identified consumer	This criteria applies to the CPAs and the PoA. The CPAs that will participate in the PoA will comprise renewable energy generation units (hydro) that will supply electricity to a national



Criteria according to AMS I.D.	Description of how the applicability criteria applies to the PoA and the underlying CPAs
<p>facility via national/regional grid through a contractual arrangement such as wheeling.</p>	<p>or a regional grid or will supply electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>
<p>2. Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2. Table 2 in AMS-I.D describes that the following types of projects can apply AMS-I.D. Project supplies electricity to a national/regional grid; Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling).</p>	<p>This criteria applies to the CPAs and the PoA. The CPAs that will participate in the PoA will comprise renewable energy generation units (hydro) that will supply electricity to a national or a regional grid or will supply electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>
<p>3. This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition;²¹ (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).</p>	<p>This criteria applies to the CPAs and the PoA. All CPAs will: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant) but where there may have been an existing reservoir; (b) Involve a capacity addition to a run of river plant or plant using an existing reservoir.</p>
<p>4. Hydro power plants with reservoirs²² that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> • The project activity is implemented in an existing reservoir with no change in the volume of reservoir; • The project activity is implemented in an existing reservoir,²³ where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²; • The project activity results in new reservoirs and the power density of the power plant, as per 	<p>This criteria complies to the CPAs and the PoA. The project will be is a run-of-the river or will utilize existing an reservoir with no change in the volume of the reservoir - no new reservoirs will be built.</p>

²¹ A capacity addition is an increase in the installed power generation capacity of an existing power plant through: (i) The installation of a new power plant besides the existing power plant/units; or (ii) The installation of new power units, additional to the existing power plant/units. The existing power plant/units continue to operate after the implementation of the project activity.

²² A reservoir is a water body created in valleys to store water generally made by the construction of a dam.

²³ A reservoir is to be considered as an “existing reservoir” if it has been in operation for at least three years before the implementation of the project activity.



Criteria according to AMS I.D.	Description of how the applicability criteria applies to the PoA and the underlying CPAs
definitions given in the project emissions section, is greater than 4 W/m ² .	
5. If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	The new unit(s) will not have both renewable and non-renewable components. No CPAs will co-fire fossil fuel. This criteria is therefore not relevant to the CPAs and will not be elaborated further in the CPA DD.
6. Combined heat and power (co-generation) systems are not eligible under this category.	This criteria complies to the CPAs and the PoA. No Combined heat and power (co-generation) systems are participating in the PoA.
7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct ²⁴ from the existing units.	This criteria complies to the CPAs and the PoA. If a CPA involves the addition of hydro generation units at an existing hydro power generation facility, the added capacity of the units added by the CPA will be less than 15 MW and will be physically distinct from the existing units.
8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	This criteria complies to the CPAs and the PoA. Retrofit or replacement will not be allowed under this PoA.
Applicability criteria for the “Tool to calculate the emission factor for an electricity system”. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The PoA requires that the CPAs supply electricity to a grid. The Tool is applied to determine the CM for calculating the baseline emissions. Note: Compliance with applicability criteria 3 in Table 5 in the CPA_DD would ensure compliance of the PoA and all the CPAs with this applicability criteria.
Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, the conditions specified in Annex 2 - Procedures related to off-grid power generation should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10% of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10% of the total electricity generation by grid power plants in the electricity system; and that factors	The emission factor for the project electricity system will be calculated for grid power plants only and will exclude off-grid power plants. Note: The PoA complies with the applicability criteria.

²⁴ Physically distinct units are those that are capable of generating electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility. For example, the addition of a steam turbine to an existing combustion turbine to create a combined cycle unit would not be considered “physically distinct”.



Criteria according to AMS I.D.	Description of how the applicability criteria applies to the PoA and the underlying CPAs
which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	

E.3. Description of the sources and gases included in the SSC-CPA boundary

As per AMS-I.D the spatial extent of the CPA boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to. For the proposed PoA, the relevant electricity system is the national or regional grid, depending on the location of the CPA.

As per the Tool to calculate the emission factor for an electricity system, the gases within the CPA boundary are restricted to CO².

Table 6: Sources of emissions for the baseline and project activity

Source		Gas	Included ?	Justification / Explanation
Baseline	CO ₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity	CO ₂	Yes	Main emission source
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
Project activity	CO ₂ emissions from combustion of fossil fuels for electricity generation	CO ₂	No	Not applicable because no fossil fuel electricity generation is included in the scope of the PoA.
		CH ₄	No	Not applicable
		N ₂ O	No	Not applicable
	For hydro power plants, emissions of CH ₄ from the reservoir	CO ₂	No	Minor emission source
		CH ₄	Yes	Main emission source
		N ₂ O	No	Minor emission source

E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:

As described in paragraph 10 in AMS-I.D, the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.



E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the SSC-CPA being included as registered PoA (assessment and demonstration of additionality of SSC-CPA): >>

E.5.1. Assessment and demonstration of additionality for a typical SSC-CPA:

The additionality of a CPA is the demonstration that in the absence of CDM the CPA would not have been implemented. Additionality can be demonstrated by following either Approach A: Apply Simplified Additionality, or Approach B: Demonstration of Additionality per Attachment A to Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM Project Activities.

Approach A: Simplified Additionality for CPAs with installed capacities up to 5MW

In accordance with EB60, Annex 25, Guidelines for Demonstrating Additionality of Microscale Project Activities (Version 02):

Project activities up to 5 megawatts that employ renewable energy technology are additional if one of four stated conditions is satisfied. For the present PoA, not all are applicable, but the following will be:

“(a) The geographic location of the project activity is in one of the Least Developed Countries or the Small Island Countries (LDCs/SIDs).”

The fourth condition (d) reads as follows:

“(d) The project activity employs specific renewable energy technologies/measures recommended by the host country DNA and approved by the Board to be additional in the host country (conditions apply: the total installed capacity of the technology/measure contribute less than or equal to 5% to national annual electricity generation).”

If the host country’s DNA submits such an application to the EB and the EB approves the application, the CPA is additional.

Approach B: Demonstration of Additionality per Attachment A to Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM Project Activities (CPAs with installed capacities above 5MW and less than 15MW or with installed capacities below 5 MW but falling outside the parameters for simplified additionality above).

The following barriers will be admissible in terms of PoA eligibility for non-SME qualifying projects:

Access-to-finance barrier:

The CPA could not access appropriate capital without consideration of the CDM revenues - the justification and evidence to support this will be elaborated on in section E.5.2 below and in the CPA DD, Section B.3 under Barrier Analysis

Investment Barrier:



A financially more viable alternative to the CPA would have led to higher emissions- the justification and evidence to support this will be elaborated on in section E.5.2 below and in the CPA DD, Section B.3 under Barrier Analysis.

Barriers due to prevailing practice

- The project is first of its kind; or
- Prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions

The justification and evidence to support this will be elaborated on in section E.5.2 below and in the CPA DD, Section B.3 under Barrier Analysis.

Impact of CDM registration

It will be shown in the CPA project documentation how CDM registration will remove or alleviate the identified barriers.

E.5.2. Key criteria and data for assessing additionality of a SSC-CPA:

Approach A

For micro-scale CPAs, CPA operators must provide evidence that small-scale hydro CPA qualifies to participate in the simplified additionality test by virtue of one of the following:

- Project is run of river/existing reservoir without volume increase structure hydro of 5 MW or less;
- The geographic location of the project activity is in one of the Least Developed Countries or the Small Island Countries (LDCs/SIDs);
- The project activity employs specific renewable energy technologies/measures recommended by the host country DNA and approved by the Board to be additional in the host country
- the total installed capacity of the technology/measure contributes less than or equal to 5% to national annual electricity generation

Approach B

For CPAs not eligible to use the simplified additionality analysis, the following information will be provided to the CME for each CPA in order to demonstrate additionality as described in Section E.5.1:

Barrier parameters

- Access-to-finance barrier: the CPA could not access appropriate capital without consideration of the CDM revenues
 - Letter from two commercial banks stating that commercial finance is not available to the CPA; The CPA developer has despite diligent effort failed to obtain equity or debt capital for the specific project; and/or



- The failure is due to real or perceived risks with investments in Southern Africa; and/or
 - The scale of the project prevents debt/equity finance.
 - For alternatives undertaken and operated by private entities, that similar activities have only been implemented with grants or other non-commercial finance terms. Similar activities are defined as activities that rely on a broadly similar technology or practices, are of a similar scale, take place in a comparable environment with respect to regulatory framework and are undertaken in the relevant country/region;

- Investment Barrier: a financially more viable alternative to the CPA would have led to higher emissions
 - Do a financial analysis in accordance with the guidance in EB 62 annex 5

- Barriers due to prevailing practice: First of Kind
 - Letter from DNA, grid operator or independent academic institution stating that no project of similar size has been commissioned in the host country or applicable geographical area as yet;

- Barriers due to prevailing practice: Other
 - Letter from DNA, grid operator or independent academic institution stating that no existing regulatory or policy requirements would have led to implementation of a technology with higher emissions

- Technological barriers:
 - Provide a letter from DNA, grid operator or independent academic institution stating that no existing regulatory or policy requirements would have led to implementation of a technology with higher emissions; and/or
 - Provide evidence that skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; and/or
 - Government policy prevents the employment of international workers; and/or
 - The pool of available workers shows a high degree of mobility and high difficulty of workforce retention; and/or
 - Lack of infrastructure for implementation and logistics for maintenance of the technology. More particularly, failure to invest adequately in distribution grid maintenance may cause grid failure events where hydro power plants are unable to export the power they produce, or the fear of such events; and/or
 - Critical infrastructure does not support the project to the degree required; and/or



- There is a real risk that the grid may not be available to export power from the CPA when the power is available and that such occurrence may be sufficiently regular to be significant.

E.6. Estimation of Emission reductions of a CPA:

E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical SSC-CPA:

As per article 24 of the “Procedures for registration of a PoA as a single CDM project activity and issuance of certified emission reductions for a PoA”, all fixed parametric values including the ex-ante grid emission factors will be revised at each point of renewal of the crediting period of the PoA. CPAs that are included in the PoA shall always apply the fixed parameters of the latest version of the PoA DD.

E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:

Baseline

The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

The baseline emissions are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable hydro plant multiplied by the grid emission factor.

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y} \quad (1)$$

Where:

BE_y	Baseline Emissions in year y (t CO ₂)
$EG_{BL,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{CO_2,grid,y}$	CO ₂ emission factor of the grid in year y (t CO ₂ /MWh)

The Grid Emissions Factor will either be taken from any standardised baseline that the EB has approved and that applies to the CPA at the time of CPA inclusion, or will be calculated in accordance with AMS 1.D as the “weighted average emissions (in t CO₂/MWh) of the current generation mix”.

The data of the year in which project generation occurs must be used. Calculations shall be based on data from an official source (where available) and made publicly available.

Capacity addition of hydro plants:

In the specific case of capacity addition in hydro plants where power generation can vary significantly from year to year, due to natural variations in the availability of the renewable source (e.g. varying



rainfall) the use of few historical years to establish the baseline electricity generation can therefore involve a significant uncertainty.

This uncertainty is addressed by adjusting the historical electricity generation by its standard deviation. The baseline emissions ($BE_{capacity\ addition, CO_2, y}$) are thus calculated as follows:

$$BE_{capacity\ addition, CO_2, y} = [EG_{BL, capacity\ addition, y}] * EF_{CO_2} \quad (2)$$

Where:

$$(\quad) \quad (3)$$

$$EG_{BL, capacity\ addition, y} = 0 \text{ on / after } DATE_{Baseline\ capacity\ addition} \quad (4)$$

Where:

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

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

$EG_{historical}$ Annual average historical net electricity generation by the existing renewable energy plant that was operated at the project site prior to the implementation of the project activity (MWh)

Average of historical net electrical energy levels delivered by the existing facility, spanning all data from the most recent available year (or month, week or other time period) to the time at which the facility was constructed, retrofit, or modified in a manner that significantly affected output (i.e. by 5% or more), shall be used.

To determine $EG_{historical}$, project participants may choose between the following two historical periods

- (a) The three last calendar years (five calendar years for hydro project) prior to the implementation of the project activity; or
- (b) The time period from the calendar year following $DATE_{hist}$, up to the last calendar year prior to the implementation of the project, as long as this time span includes at least three calendar years (five calendar years for hydro project), where $DATE_{hist}$ is latest point in time between:
 - (i) The commercial commissioning of the plant/unit;
 - (ii) If applicable: the last capacity addition to the plant/unit; or
 - (iii) If applicable: the last retrofit of the plant/unit

$\sigma_{historical}$ Standard deviation of the annual average historical net electricity supplied to the grid by the existing renewable energy plant that was operated at the project site prior to the implementation of the project activity (MWh)

$DATE_{Baseline\ capacity\ addition}$ Point in time when the existing equipment would need to be replaced in the absence of the project activity (date)



Project emissions

Emissions from water reservoirs of hydro power plants ($PE_{HP,y}$)

For hydro power project activities that result in new single or multiple reservoirs and hydro power project activities that result in the increase of single or multiple existing reservoirs, project proponents shall account for CH₄ and CO₂ emissions from the reservoirs, estimated as follows:

(a) If the power density of the single or multiple reservoirs (PD) is greater than 4 W/m² and less than or equal to 10 W/m²:

$$PE_{HP,y} = \frac{EF_{Res} \cdot TEG_y}{1000} \quad (5)$$

Where:

- $PE_{HP,y}$ = Project emissions from reservoirs of hydro power plants in year y (tCO₂e)
- EF_{Res} = Default emission factor for emissions from reservoirs of hydro power plants (kgCO₂e/MWh)
- TEG_y = Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y (MWh)

(b) If the power density of the project activity (PD) is greater than 10 W/m²: (6)

The power density of the project activity (PD) is calculated as follows: (7)

Where:

- PD = Power density of the project activity (W/m²)
- Cap_{PJ} = Installed capacity of the hydro power plant after the implementation of the project activity (W)
- Cap_{BL} = Installed capacity of the hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero
- A_{PJ} = Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²)
- A_{BL} = Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). For new reservoirs, this value is zero

If the CPA is a run-of-the river hydro project and thus there is no reservoir, it is reasonable to exclude these project emissions.

For run of river, the project emissions are zero.

$$PE_y = 0.$$

Leakage

If the energy generating equipment is transferred from another activity, leakage is to be considered.



Emission reductions

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \tag{3}$$

Where:

- ER_y Emission reductions in year y (t CO₂/y)
- BE_y Baseline Emissions in year y (t CO₂/y)
- PE_y Project emissions in year y (t CO₂/y)
- LE_y Leakage emissions in year y (t CO₂/y)

E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form:

Detailed information on the data and parameters that do not require monitoring are described below. Data and parameters used for ex-ante calculation that need to be monitored after project implementation are shown in E.7.1.

Data / Parameter:	Anticipated installed capacity
Data unit:	MW
Description:	Total rated capacity of the generators to be installed at the hydro power plant
Source of data used:	Plant design or feasibility documentation
Value applied:	
Justification of the choice of data or description of measurement methods and procedures actually applied :	The value reflects the capacity expected to be installed at the hydro power plant according to the plant design parameters.
Any comment:	The final capacity installed at the plant may differ from the value reported in the CPA DD as the selection of the technology may not be finalised at the time when the CPA PDD is prepared.

Data / Parameter:	$EG_{\text{historical}}$
Data unit:	MWh
Description:	Annual average historical net electricity generation by the existing renewable energy plant that was operated at the project site prior to the implementation of the CPA
Source of data used:	Average of historical net electrical energy levels delivered by the existing facility, spanning all data from the most recent available year (or month, week or other time period) to the time at which the facility was constructed, retrofit, or modified in a manner that significantly affected output (i.e. by 5% or more), shall be used.
Value applied:	



Justification of the choice of data or description of measurement methods and procedures actually applied :	To determine $EG_{\text{historical}}$, project participants may choose between the following two historical periods (a) The three last calendar years (five calendar years for hydro project) prior to the implementation of the project activity; or (b) The time period from the calendar year following $DATE_{\text{hist}}$, up to the last calendar year prior to the implementation of the project, as long as this time span includes at least three calendar years (five calendar years for hydro project), where $DATE_{\text{hist}}$ is latest point in time between: (i) The commercial commissioning of the plant/unit; (ii) If applicable: the last capacity addition to the plant/unit; or (iii) If applicable: the last retrofit of the plant/unit
Any comment:	

Data / Parameter:	$FC_{i,m,y}$
Data unit:	mass or volume unit
Description:	Amount of fossil fuel type i consumed by power unit m in year y
Source of data used:	Information published by the national utility information for the South African national grid or public available information as supplied by the national energy regulator or by power stations.
Value applied:	Value will be shown in the CPA PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per “Tool to calculate the emission factor for an electricity system”. (i) Simple OM: Once for the crediting period using the most recent three historical years for which data is available at the time of submission of the CPA to the PoA (<i>ex ante</i> option); (ii) BM: Once <i>ex ante</i> as there is only one crediting period.
Any comment:	

Data / Parameter:	$NCV_{i,y}$								
Data unit:	GJ/mass or volume unit								
Description:	Net calorific value (energy content) of fossil fuel type i in year y								
Source of data used:	<ul style="list-style-type: none"> • CME will collect the relevant information and can provide the information to the CPA operator. • The following sources may be applied: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Data source</th> <th>Conditions for using the data source</th> </tr> </thead> <tbody> <tr> <td>Values provided by the fuel supplier of the power plants in invoices</td> <td>If data is collected from power plant operators (e.g. utilities)</td> </tr> <tr> <td>Regional or national average default values</td> <td>If values are reliable and documented in regional or national energy statistics/energy balances</td> </tr> <tr> <td>IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories</td> <td></td> </tr> </tbody> </table>	Data source	Conditions for using the data source	Values provided by the fuel supplier of the power plants in invoices	If data is collected from power plant operators (e.g. utilities)	Regional or national average default values	If values are reliable and documented in regional or national energy statistics/energy balances	IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories	
Data source	Conditions for using the data source								
Values provided by the fuel supplier of the power plants in invoices	If data is collected from power plant operators (e.g. utilities)								
Regional or national average default values	If values are reliable and documented in regional or national energy statistics/energy balances								
IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories									



Value applied:	Value will be shown in the CPA PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per “Tool to calculate the emission factor for an electricity system”
Any comment:	For (a) and (b): Measurements should be undertaken in line with national or international fuel standards

Data / Parameter:	EG_y
Data unit:	MWh
Description:	Net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost/must-run power plants/units, in year y
Source of data used:	Public available information as supplied by the national energy regulator or the national utility or by power stations.
Value applied:	Values will be shown in the CPA PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per “Tool to calculate the emission factor for an electricity system”
Any comment:	

Data / Parameter:	$EF_{CO_2,i,y}$
Data unit:	tCO ₂ /GJ
Description:	CO ₂ emission factor of fossil fuel type i in year y
Source of data used:	The following data sources may be used if the relevant conditions apply: For (a) and (b): Measurements should be undertaken in line with national or international fuel standards



	Data source	Conditions for using the data source
	a) Values provided by the fuel supplier in invoices	This is the preferred source
	b) Measurements by the project participants	If a) is not available
	c) Regional or national default values	If a) is not available These sources can only be used for liquid fuels and should be based on well-documented, reliable sources (such as national energy balances)
	d) IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories	If a) is not available
Value applied:		
Justification of the choice of data or description of measurement methods and procedures actually applied :		
Any comment:		

E.7. Application of the monitoring methodology and description of the monitoring plan:

D.7.1. Data and parameters to be monitored by each SSC-CPA:

Data / Parameter:	EG _{BL,y}
Data unit:	MWh
Description:	Electricity delivered by the CPA to the grid in year y
Source of data to be used:	Metered
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Specify in the CPA PDD



Description of measurement methods and procedures to be applied:	The electricity supplied to the grid will be monitored continuously, measured hourly and recorded at least monthly. The meter shall be installed at the point of connection to the grid as agreed with the grid operator. Any electricity meters owned and operated by the grid operator will not fall within the project boundary of the CPAs.
QA/QC procedures to be applied:	Measurement results shall be crosschecked with invoices/receipts for sold/purchased electricity. Calibration of meters will be done according to the supplier specifications and at least once a year.
Any comment:	

Data / Parameter:	$EG_{PJ, facility, y}$
Data unit:	MWh/yr
Description:	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Source of data to be used:	CPA operator
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Specify in the CPA PDD
Description of measurement methods and procedures to be applied:	Continuous measurement and at least monthly recording
QA/QC procedures to be applied:	Cross check measurement results with records for sold electricity
Any comment:	Only required for CPAs that involve capacity addition.



Data / Parameter:	$\sigma_{\text{historical}}$
Data unit:	
Description:	Standard deviation of the annual average historical net electricity supplied to the grid by the existing hydro power plant that was operated at the project site prior to the implementation of the CPA
Source of data to be used:	Calculated from data used to establish $EG_{\text{historical}}$. Parameter to be calculated as the standard deviation of the annual generation data used to calculate $EG_{\text{historical}}$ for retrofit or replacement project activities.
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Specify in the CPA PDD
Description of measurement methods and procedures to be applied:	N/A
QA/QC procedures to be applied:	-
Any comment:	Only required for CPAs that involve capacity addition.

E.7.2. Description of the monitoring plan for a SSC-CPA:

Each installed hydro power plant is uniquely identifiable by an identification number and the CME will maintain a database of all hydro power plants installed in under the PoA.

The CPA PDD will contain the following information:

1. Monitoring Period

The monitoring period starts from the date of commissioning of the first activity under the CPA or the date of registration of the proposed CPA under the PoA (whichever occurs last).

2. Monitoring management structure

In order to obtain effective monitored data, the CPA operator will identify the responsible persons for monitoring, data collection and archiving on site. The management structure will be presented in the CPA PDD.

The main data for calculating emission reductions of the project activity is $EG_{\text{facility},y}$ (Net electricity supplied to grid by the hydro power plant in year y) monitored by electricity meters. The data of $EG_{\text{facility},y}$ will be crosschecked against the relevant monthly electricity sale receipts (and purchases) and/or records from the grid.



3. Calibration of Meters

The calibration frequency is at least once a year or as specified by the equipment supplier.

4. Metering

The CPA operator will be responsible to meter the following monitoring parameters:

- (a) Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.
- (b) Quantity of net electricity generation supplied to the grid in year y by the project plant/unit that has been added under the project activity (in the case of capacity addition).
- (c) The amount of fossil fuel used for back-up purposes, if this is relevant.

5. Data collection

- (a) Responsible entities that will collect and store data

Data will be collected by each CPA operator on site. The data will be entered into an excel spreadsheet for which the template will be provided to the CPA operator. The information from the excel spreadsheet will be transferred into the database on a monthly basis. The CPA operator will collect the relevant evidences for power delivered to the grid by the hydro power plant and additional data (including the amount of electricity purchased from the grid).

- (b) Data transfer and storage

The information that is entered by the CPA operators into the excel template on a monthly basis will be transferred into the CME database on a monthly basis. The information will be stored in the CME database for the full duration of the POA.

- (c) Quality control

The CME will conduct an audit on each CPA every 6 months to ensure that all the relevant data is collected and that the necessary support documentation is collected and stored adequately for verification purposes.

- (d) Duration of archiving of information at the CPA site

All data for the CPA will be archived for a minimum period of 2 years after the end of the crediting period for the CPA.

- (e) Training and monitoring personnel

The CME will confirm that all persons that participate in the monitoring process will be suitably qualified and trained in the operation and maintenance of the CPA project activity. These persons will also receive training on the application of the monitoring plan.



6. Location of monitors installed on site (if available at the time of validation)

If the location of the monitors are available at the time that the PDD is submitted, please provide a schematic diagram of the location of the monitors in Annex 4.

E.8 Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)

19 October 2011

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Annex 1

**CONTACT INFORMATION ON COORDINATING/MANAGING ENTITY and
PARTICIPANTS IN THE PROGRAMME of ACTIVITIES**

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Annex 2

INFORMATION REGARDING PUBLIC FUNDING

CPA's receiving public funding will not be eligible to take part in the PoA.



Annex 3

BASELINE INFORMATION

Annex 4

MONITORING INFORMATION

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