



**Component project activity design document form
(Version 08.1)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title of the CPA	Puringla Sazagua Small Scale Hydropower Project - CPA0003
Scale of the CPA	<input type="checkbox"/> Large-scale <input type="checkbox"/> Small-scale
Version number of the CPA-DD	<u>34</u>
Completion date of the CPA-DD	<u>22/12/2017</u> 04/04/2016
Title and UNFCCC reference number of the registered CDM PoA	Guacamaya Small Scale Hydropower Programme of Activities (Ref. Num. 8950)
Title and reference number of the corresponding generic CPA	Title: "CPA Design Document"
Coordinating/managing entity	Anaconda Carbon S.A.
Host Party	Republic of Honduras
Applied methodologies and standardized baselines	AMS-I.D version 17.0: grid connected renewable electricity generation
Sectoral scopes linked to the applied methodologies	1 : Energy industries (renewable - / non-renewable sources)
Estimated amount of annual average GHG emission reductions	29,185 tCO ₂

SECTION A. **Description of component project activity (CPA)**A.1. **General description of CPA**

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The Puringla Sazagua Small Scale Hydropower Project is a CPA pertaining to the CDM registered PoA titled Guacamaya Small Scale Hydropower Programme of Activities (Ref. Num. 8950), ~~and consists on an 9.6 MW hydroelectric power plant located in Honduras.~~ and consists of a hydroelectric power plant located in Honduras with three Francis turbines with individual capacity of 3.383 MW and generators of 3.315 MW (9.945 MW Total installed capacity of generators).

The project is property of Compañía Eléctrica Centroamericana S.A. de C.V. (hereinafter CECA) and it is located in the Municipality of Santiago de Puringla at the La Paz Department, specifically in the confluence of the Puringla and Sazagua Rivers.

Below is a table with key dates for project development:

Milestone	Date
Order of the electromechanical equipment	June 18, 2013
Civil Works Contract	October 11, 2012
Financial Closure with bank	September 28, 2012

A.2. **Location of CPA**

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The project activity is located in the Municipality of Santiago de Puringla at the La Paz Department Honduras. More specifically in the confluence of the Puringla and Sazagua Rivers.

	Longitude	Latitude
Diversion Dam	-87.949725	14.370969
Powerhouse	-87.954713	14.383733

Below a map of the location of the project and the host country:



A.3. Technologies/measures

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The CPA is a run of river hydropower plant; it involves the construction of the intake structure, the water conveyance system and the power house. The plant conforms to the NREL definition of run-of-the-river because it does not have a reservoir to store water and thus relies on the natural water flow of the river, greatly reducing the environmental impact of the site. After the water is diverted from the Puringla and Sazagua rivers, it goes through three vertical axis Francis turbines and is subsequently discharged to the Puringla river, which later connects to the Sazagua river.

The installed capacity consists of three Francis turbines with individual capacity of 3.383 MW and generators of 3.315 MW (9.945 MW Total installed capacity of generators) that are estimated to produce 46,900 MWh annually. The installed capacity would be of 9.6 MW and produce 46,900 MWh annually. This electricity would be supplied to ENEE (Honduran National Electricity Company) and displace electricity that is otherwise produced by coal and fossil fuels. This electricity is supplied to the Honduran national grid via a 10 km long transmission line that is located near the city of Siguatepeque.

The construction includes: a bypass dam, conduction and pressure pipelines, a power house with a control room, and transmission line. The operational lifetime is expected to be of 30 years.

The project activity is expected to reduce 29,185 tCO₂ per year, and 204,295 tCO₂ over the first crediting period (7 years).

A.4. Coordinating/managing entity

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Anaconda Carbon S.A.

A.5. Parties and CPA implementers

Parties involved	CPA implementers	Indicate if the Party involved wishes to be considered as CPA implementer (Yes/No)
Republic of Honduras (host)	Compañía Eléctrica Centroamericana S.A. de C.V.	No
Germany	Carbonbay GmbH & Co. KG	No
Republic of Panama	Anaconda Carbon S.A.	No

A.6. Public funding of CPA

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The project did not receive any public findings from any international donors (no official development assistance).

A.7. History of CPA

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The CPA is neither registered as an individual CDM project activity nor is part of another registered PoA. The CME has ensured that the CPA has not been registered as a single CDM project. The CPA entity has signed an agreement with the CME which will ensure that the CPA has not been included to another PoA. It should also be noted that the project activity is not not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs.

A.8. Debundling

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CDM-CPA-DD-FORM

The Puringla Sazagua Small Scale Hydropower Project is not a de-bundled component of another project activity, in line with the provisions of the "Guidelines on Assessment of Debundling for SSC Project Activities" (version 03).

The four conditions that need to be met are:

- (a) With the same project participants;
- (b) In the same project category and technology/measure; and
- (c) Registered within the previous 2 years; and
- (d) Whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.

The project participant of the CPA is not participating in any other hydro power plant under validation or registered in Honduras, and the Puringla Sazagua Hydropower Project is the first hydropower project CECA has developed. This can be crosschecked with the PDD published for validation and registered under the UNFCCC webpage.

Distance (km) of the Puringla Sazagua Hydropower Project to a CDM activity of the same activity implementer in the same sectoral scope.

Name of the project	Distance to other CDM activities
Puringla Sazagua Hydropower Project	N/A, Puringla Sazagua Hydropower project is the first CPA entering the programme from this project participant.

SECTION B. Application of selected methodologies and standardized baselines

B.1. Reference to methodologies and standardized baselines

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AMS-I.D version 17.0: grid connected renewable electricity generation

B.2. Project boundary, sources and greenhouse gases (GHGs)

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	Source	GHG	Included ?	Justification/Explanation
Baseline	The Power Grid electricity production from the host country	CO ₂	Included	According AMS.I.D.v17, only CO ₂ emissions from electricity generation should be accounted for.
		CH ₄	Excluded	According to AMS.I.D.
		N ₂ O	Excluded	According to AMS.I.D.
Project activity	CPA electricity production	CO ₂	Excluded	According to AMS.I.D.
		CH ₄	Excluded	According to AMS.I.D.
		N ₂ O	Excluded	According to AMS.I.D.
	For hydro power plants, emissions of CH ₄ from the reservoir	CO ₂	Excluded	Not applicable
		CH ₄	Excluded	Not applicable
		N ₂ O	Excluded	Not applicable

B.3. Establishment and description of baseline scenario

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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.

B.4. Estimation of emission reductions

B.4.1. Explanation of methodological choices

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The project activity falls under category AMS-I.D *Grid connected renewable electricity generation* (version 17) because the project activity meets the applicability criteria as follows:

Applicability Criteria	CPA Scenario
<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) Supplying electricity to a national or a regional grid; or</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>	<p>The CPA is a hydro power plant that supplies electricity to the Honduras national grid.</p>
<p>This methodology is applicable to project activities that:</p> <p>(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);</p> <p>(b) Involve a capacity addition;</p> <p>(c) Involve a retrofit of (an) existing plant(s); or</p> <p>(d) Involve a replacement of (an) existing plant(s).</p>	<p>The CPA is a new renewable energy power plant at a site where there is no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant).</p>
<p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ol style="list-style-type: none"> 1. The project activity is implemented in an existing reservoir with no change in the volume of reservoir; 2. The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²; 	<p>The CPA is a run-of-the-river type small hydro power plant. No reservoir is involved in the CPA.</p>

3. 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/m ² .	
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 CPA involves renewable energy sources (hydro) only. The installed capacity is 9.6MW <u>consists of three Francis turbines with individual capacity of 3.383 MW and generators of 3.315 MW each (9.945 MW total)</u> , which is less than 15 MW.
Combined heat and power (co-generation) systems are not eligible under this category.	Not applicable
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 15MW and should be physically distinct from the existing units. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	Not applicable. The project is a Greenfield project.
In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	Not applicable. The project is a Greenfield project.
In the specific case of biomass project activities the applicability of the methodology is limited to either project activities that use biomass residues only or biomass from dedicated plantations complying with the applicability conditions of AM0042.	Not applicable. The CPA is a hydro project.

In addition, the CPA supplies electricity to the national grid or the CPA results in saving of electricity that would have been provided by the grid, the CPA meets the applicability criteria of the Tool to calculate the emission factor for an electricity system (version 04.0) as follows:

Applicability Criteria	CPA Scenario
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 CPA supplies electricity to the national grid.
The tool is not applicable if the project electricity system is located partially or totally in an Annex-I country.	The project electricity system is located in Honduras. This country is not an annex I country.

The energy generating equipment employed by the CPA is not transferred from another activity.	No energy generating equipment by the CPA is transferred from another activity.
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B.4.2. Data and parameters fixed ex ante

(Copy this table for each piece of data or parameter.)

Data/Parameter	$EF_{grid,CM,y}$
Data unit	tCO ₂ e/MWh
Description	Emission factor of the grid where the hydropower is exporting the electricity to.
Source of data	Data officially approved by the Host country DNA
Value(s) applied	0.6223
Choice of data or measurement methods and procedures	The value is calculated with the latest data available at the start of the validation of the Guacamaya PoA.
Purpose of data	To calculate baseline emissions
Additional comment	Not applicable

Data/Parameter	CAP_{BL}
Data unit	W
Description	Installed capacity of the hydro power plant before the implementation of the project activity. For new hydro power plants, this value is zero.
Source of data	Project site
Value(s) applied	0
Choice of data or measurement methods and procedures	Not applicable
Purpose of data	To calculate the power density
Additional comment	Only applicable when the CPA involves reservoirs

Data/Parameter	A_{BL}
Data unit	m ²
Description	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 (m ²). For new reservoirs, this value is zero
Source of data	Project site
Value(s) applied	0
Choice of data or measurement methods and procedures	Not applicable
Purpose of data	To calculate the power density
Additional comment	Only applicable when the CPA involves reservoirs

B.4.3. Ex ante calculation of emission reductions

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The total emission reductions of the CPA are calculated on the basis of the equations and parameters presented and explained in section E.6.1 of the PoA DD.

Baseline emissions

Grid connected renewable electricity generation

The Electricity delivered (EG_y) by Puringla Hydroelectric Project is calculated based on the results of the feasibility study as:

Installed capacity ~~turbine: 9.6 MW~~ generator: 9.945 MW.

Electricity generation per year reported in the technical description taking into account efficiency and losses: 46,900 MWh.

Thereby $EG_y = 46,900$ MWh/year

$$EF_{grid, CM, y} = 0.6223$$

Equation:

$$BE_{y, power} = EG_y \times EF_{grid, CM, y}$$

Emission reductions

1. Calculation of emission reduction from electricity generation

Input data:

$$BE_{y, power} = 29,185 \text{ tCO}_2/\text{year}$$

$$PE_{y, power} = 0$$

$$\text{Leakage}_{y, power} = 0$$

Equation:

$$ER_{y, power} = BE_{y, power} - PE_{y, power} - \text{Leakage}_{y, power}$$

$$ER_{y, power} = BE_{y, power}$$

B.4.4. Summary of ex ante estimates of emission reductions

Year	Baseline emissions (t CO ₂ e)	Project emissions (t CO ₂ e)	Leakage (t CO ₂ e)	Emission reductions (t CO ₂ e)
Year 1	29,185	0	0	29,185
Year 2	29,185	0	0	29,185
Year 3	29,185	0	0	29,185
Year 4	29,185	0	0	29,185
Year 5	29,185	0	0	29,185
Year 6	29,185	0	0	29,185
Year 7	29,185	0	0	29,185
Total	204,295	0	0	204,295
Total number of crediting years	7			

Annual average over the crediting period	29,185	0	0	29,185
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B.5. Monitoring plan

B.5.1. Data and parameters to be monitored

(Copy this table for each piece of data or parameter.)

Data/Parameter	EG_y
Data unit	MWh/y
Description	Quantity of net electricity supplied to the grid in year y.
Source of data	Measured by bi-directional electricity meter owned by the project owner. The electricity buyer can install (which is the standard in Honduras) an own meter, in this case the average of the two meters will be taken as the correct value, if the difference of the values is not more than 1%.
Value(s) applied	46,900 MWh
Measurement methods and procedures	The net electricity production will be measured continuously and recorded monthly. The net electricity will be calculated by subtracting the electricity exported with the electricity imported by the CPA. A high level of accuracy of the measurements will be achieved due to the use of high-precision equipment of at least 0.15 (extended range) for P (electric power) and Q (reactive power) and in compliance with the ANSI requirements.
Monitoring frequency	Measured continuously and recorded monthly
QA/QC procedures	Device calibration is carried out periodically in accordance with manufacturer specifications where available. <u>A calibration is to take place in case one of the meters is not functioning properly, which is deemed the case if there is more than a 1% difference in readings between the project meter and the utility meter. Calibration interval will not exceed 3 years, as per CDM standards.</u> Device calibration will be carried out periodically in accordance with manufacturer specifications where available. <u>The calibration frequency will comply with applicable national regulations and requirements and will not exceed 3 years, as per CDM standards. Meter testing will be carried every 6 months as per the provisions of the PPA, or in case one of the meters is not working properly: _</u>
Purpose of data	Calculate the baseline emissions
Additional comment	The meter readings will be cross-checked with available internal and/or external information such as electricity invoices.

B.5.2. Sampling plan

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Not applicable.

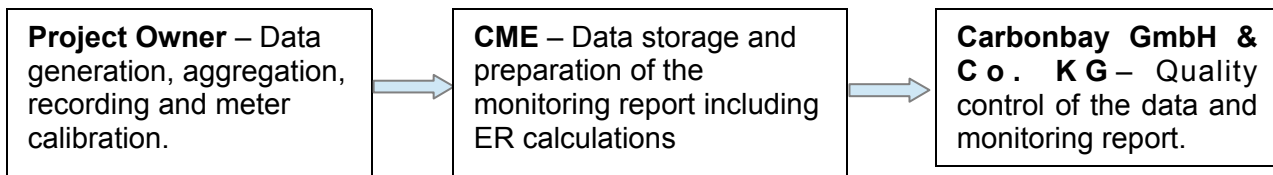
B.5.3. Other elements of monitoring plan

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Management Structure and Responsibilities: Overall responsibility for daily monitoring and reporting lies with the project owner. The manager of the proposed project is responsible for the review of the monthly reported results/data and for checking the calibration certificates. The data

will be sent to the CME for storage and preparation of the monitoring report, the quality control and approval is done by Carbonbay GmbH & Co. KG.

Organizational Chart:



Data Collection: ~~The electricity supplied to the grid by the project activity will be measured by calibrated electricity meters located in the substation, the point of connection to the grid. The electricity supplied to the grid by the project activity will be measured by calibrated electricity meters which are located in the point of connection to the grid, which in this case is outside the powerhouse, next to the substation, which is located in the same building as the powerhouse.~~ Any electricity import will be discounted to calculate the net electricity supplied to the grid. The parameter is monitored at the project site and crosschecked with the invoices of electricity sold. Data is monitored continuously, measured hourly and recorded monthly as required by the applicable methodology.

Data Recording: All data collected is recorded monthly into an electronic spreadsheet.

Data Calibration: ~~All measurements are conducted with calibrated measurement equipment (electricity meters shall have a class of 0.15). The calibration and testing regime is defined by local authorities in the PPA, but will be performed at least every 3 years. The equipment used to monitor the electricity is provided by the project owner, and evidences provided to the CME.~~ All measurements will be conducted with calibrated measurement equipment (electricity meters have a class of at least 0.15). Device calibration is carried out periodically in accordance with manufacturer specifications where available. A calibration is to take place in case one of the meters is not functioning properly, which is deemed the case if there is more than a 1% difference in readings between the project meter and the utility meter. Calibration interval will not exceed 3 years, as per CDM standards. The equipment used to monitor the electricity is described by the project owner, and evidences are provided to the CME.

Data Report: Data recorded (control value) and the invoices (main value) are consolidated on a monthly basis and are subject to quality control. If there are discrepancies in the data, the source of the variation will be identified, whatever is the main measured value or the control value. The data is compiled monthly in a report and verified by the Project Developer's Head Office.

Data Archives: The data recording, the data report and the invoices will be archived, together with this monitoring plan. All data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period.

Data Quality Control: An internal procedure to ensure the correctness of data is employed. Data and reports are checked internally to ensure correctness of data. In case of mistakes, corrective actions are applied to avoid future similar mistakes. In case of erroneous measurements, the data is not taken into account for emission reduction purposes.

Training and Monitoring Personnel: All people that participate in the monitoring process are suitably qualified and trained in the operation and maintenance of the plant. They also receive instructions for the use of the monitoring plan.

Emission factor calculation: The combined margin emission factor is fixed for the first crediting period and updated when the crediting period of the PoA is renewed, using ex-ante data for OM and BM as described in the PoA-DD document.

Verification and Monitoring Results: The monitoring report has been prepared by the managing entity. It contains the data report, the emission factor calculation and the results of the emissions reductions of the project for a certain period.

Leakage monitoring: No energy generating equipment is transferred from another activity to this project and there is no existing equipment to be transferred to another activity. The project activity involves electricity generation from hydro sources. The employed hydro energy generator can only convert hydro energy into electrical energy and cannot use any other input fuel for electricity generation. Thus monitoring leakage from the project activity is not required.

SECTION C. Start date, crediting period type and duration

C.1. Start date of CPA

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The start date of the CPA is 28/09/2012 , which is the date in which the bank loan agreement was signed .

C.2. Expected operational lifetime of CPA

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30 years and 0 Months

C.3. Crediting period of CPA

C.3.1. Type of crediting period

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Renewable crediting period of 7 years for the first crediting period, which can be renewed twice and extended for a maximum length of 21 years.

C.3.2. Start date of crediting period

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01/09/2015 or the date of inclusion into the POA, whichever is later.

C.3.3. Duration of crediting period

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Renewable crediting period of 7 years for the first crediting period, which can be renewed twice and extended for a maximum length of 21 years.

SECTION D. Environmental impacts

D.1. Analysis of environmental impacts

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As per PoA-DD the environmental analysis was undertaken at CPA level.

Air Quality:

There are no changes compared to the baseline related to the air quality. Any measure or mitigation measure was followed during construction or will be followed during operation.

Water quality and quantity:

Minimum ecological flow will be respected. Also, as stipulated in the EIA, that the water that is discharged from the project activity be in equal or better conditions than it was when entering the water conduction channel.

Soil Condition:

During construction phase, earth movement and changes to the conformation of the ground were necessary to install the pipelines and the power house.

Mitigation measures:

- Stabilising slopes by reapplying the top soil removed during construction to refill affected soil area.
- Grass sowing

Other Pollutants:

Other pollutant identified is residues due to the construction and operation of the plant. During construction the mitigation measures include a plan for the correct disposal of the residues. During operation the residues will be correctly managed and disposed according to the approved EIA.

Mitigation measures were followed during construction.

During operation, any monitoring or mitigation measure is to be followed, since given the relatively small civil works that have to be carried out, the project will not have a significant impact on the local fauna and civilian populations. The nearest household to the project activity will not be affected by noise or vibration during construction or operation.

Biodiversity:

Voluntary reforestation and afforestation programs are implemented on the project territories to prevent soil erosion and protect the river basin.

The environmental protection of the area affected by the construction and operation of the project will be monitored closely by the company, the nearest fire department, independent experts to measure the wildlife populations, and water quality, as well as by an agent of the relevant environmental authority responsible for this region. All mitigation measures have been evaluated and approved by these parties.

The species of trees that have been identified in the area is predominantly pine, but there is also some oak present in the area. The company will work to ensure proper tree management practices during all phases of the project.

In case of tree felling, the company is instructed to communicate to the Municipal Environmental Authority where to plant the 10 trees that are required to plant for every tree felled.

D.2. Environmental impact assessment

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As per PoA-DD the environmental analysis was undertaken at CPA level.

SECTION E. Local stakeholder consultation

E.1. Modalities for local stakeholder consultation

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Prior to start of the operation of the project, several meetings were held with local stakeholders, which reached agreements on how the project would be developed and what donations the promoters would be able to provide.

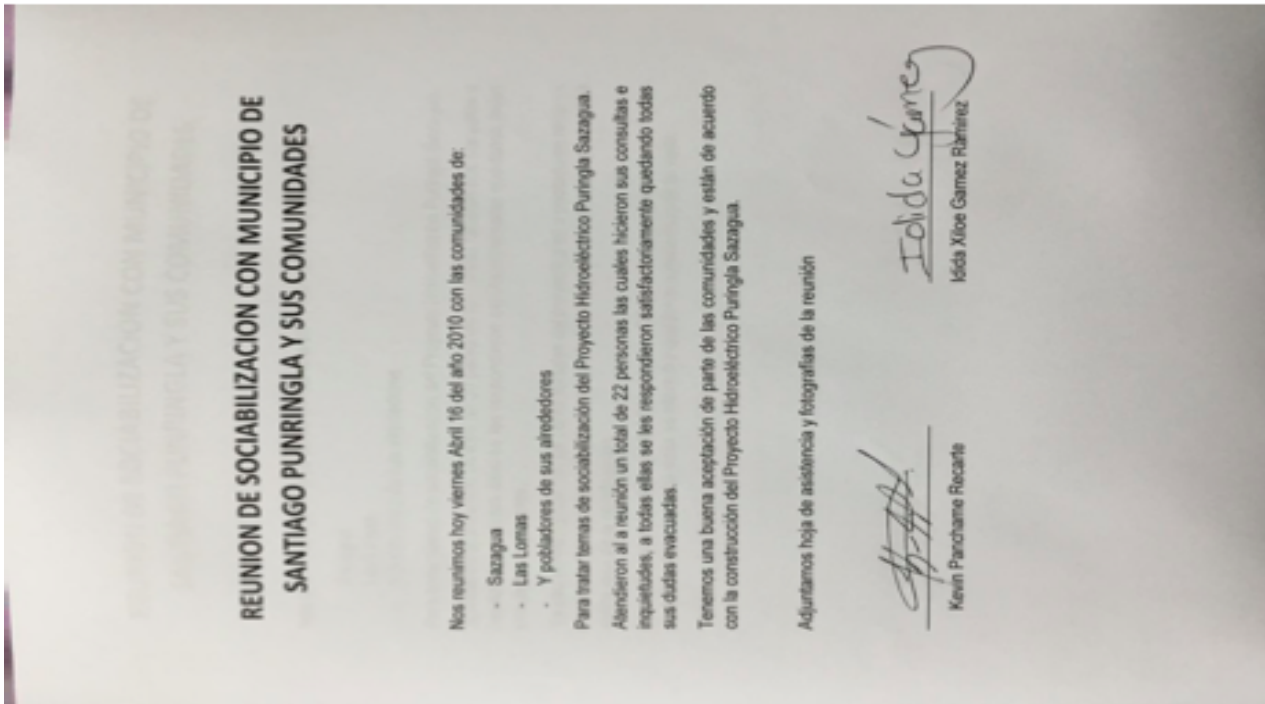
These meetings were announced via communication with the local associations "patronatos", with the local government and in person invitations with the local inhabitants.

Below is a table outlining the meetings held prior to the project start date:

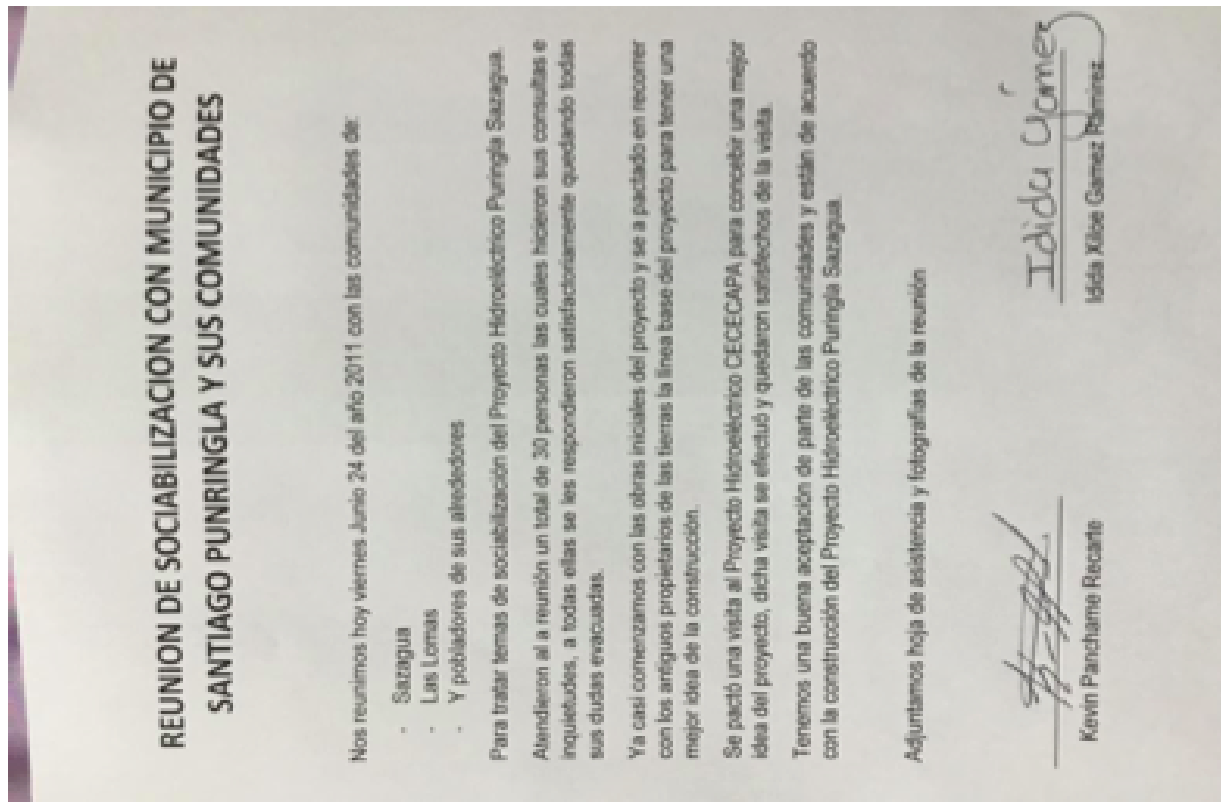
Meeting #	Date	Location	Comments
1	April 16, 2010	Santiago Puringla's Municipal Building	Project proponents described the project activity to stakeholders from the communities of Las Lomas, Sazagua and the surrounding areas.
2	June 24, 2011	Sazagua School Building	Project proponents described the project activity with the local populations. The project owners agreed to take the former land owners on a site visit of where the construction would take place. The project owners also agreed to take people that were interested on a visit to the CECECAPA HPP, in order to have a better understanding of how a HPP operates.
3	July 2012	Las Lomas School Building	Project proponents described the project activity and took contact information of the local inhabitants that were interested in being hired during the construction phase of the project.

Below are copies of the project owner's summaries of the meetings [and attendance](#) lists for these meetings:

Meeting #1:



Meeting #2:



Asistencia a convocatoria
Centro de Reunion: **ESCUELA SARAGUA**

Fecha: **Junio 2011**

No.	Nombre	Lugar	Institucion	No. Identidad	Direccion	Firma
1	José Del Carmen Moya Gale	Los Llanos	ninguna	1218-1912-00222	Santiago P.	José Del Carmen
2	Francisco Gale Cruz	Los Llanos	ninguna	1218-1912-00224	Santiago P.	Francisco Gale
3	Juan Guillermo Romero A.	Los Llanos	ninguna	1218-1912-00226	Morongo	Juan Romero
4	Trinidad Rodríguez Mejía	Los Llanos	ninguna	1218-1912-00228	Morongo	Trinidad Rodríguez
5	Nelson Samuel Domínguez	Los Llanos	ninguna	1218-1912-00230	Morongo	Nelson Domínguez
6	José Santos Partillo G.	Saragua	ninguna	1218-1912-00232	Santiago P.	José Santos Partillo
7	Juan Carlos Santos Aguirre	Saragua	ninguna	1218-1912-00234	Santiago P.	Juan Carlos
8	José Roberto Hernández	Los Llanos	ninguna	1218-1912-00236	Santiago P.	José Roberto Hernández
9	Maria Rosario Partillo R.	Saragua	ninguna	1218-1912-00238	Santiago P.	Maria Rosario
10	Rafael Amaya Castillo	Saragua	ninguna	1218-1912-00240	Santiago P.	Rafael Amaya
11	Martina Rodríguez Aguilar	Saragua	ninguna	1218-1912-00242	Santiago P.	Martina Rodríguez
12	Jesús Rodríguez	Saragua	ninguna	1218-1912-00244	Santiago P.	Jesús Rodríguez
13	Juan Rodríguez	Saragua	ninguna	1218-1912-00246	Santiago P.	Juan Rodríguez
14	Morales Alexis Rivera M.	Saragua	ninguna	1218-1912-00248	Santiago P.	Morales Alexis Rivera
15	Maria Santos Rivera H.	Saragua	ninguna	1218-1912-00250	Santiago P.	Maria Santos Rivera

Asistencia a convocatoria
Centro de Reunion: **ESCUELA SARAGUA**

Fecha: **Junio 2011**

No.	Nombre	Lugar	Institucion	No. Identidad	Direccion	Firma
16	Felipe Partillo Rodríguez	Los Llanos	ninguna	1218-1912-00252	Santiago P.	Felipe Partillo
17	Morales Gale	Los Llanos	ninguna	1218-1912-00254	Santiago P.	Morales Gale
18	Wily Elizabeth Cardona	Los Llanos	ninguna	1218-1912-00256	Santiago P.	Wily Elizabeth Cardona
19	Teodoro Gale Mejía	Los Llanos	ninguna	1218-1912-00258	Santiago P.	Teodoro Gale
20	Santos Wily Rodríguez	Los Llanos	ninguna	1218-1912-00260	Santiago P.	Santos Wily Rodríguez
21	Juliana Gale	Los Llanos	ninguna	1218-1912-00262	Santiago P.	Juliana Gale
22	Trinidad Gale	Los Llanos	ninguna	1218-1912-00264	Santiago P.	Trinidad Gale
23	Asunción Mejía	Los Llanos	ninguna	1218-1912-00266	Santiago P.	Asunción Mejía
24	Nail Carlos López	Los Llanos	ninguna	1218-1912-00268	Santiago P.	Nail Carlos López
25	Santos Ángel Rodríguez	Los Llanos	ninguna	1218-1912-00270	Santiago P.	Santos Ángel Rodríguez
26	Adrián Hilario Rubio	Los Llanos	ninguna	1218-1912-00272	Santiago P.	Adrián Hilario Rubio
27	Eugenia Rodríguez	Los Llanos	ninguna	1218-1912-00274	Santiago P.	Eugenia Rodríguez
28	Bernardina Cardona	Los Llanos	ninguna	1218-1912-00276	Santiago P.	Bernardina Cardona
29	Maria Partillo	Los Llanos	ninguna	1218-1912-00278	Santiago P.	Maria Partillo
30	Rubén Rivera Rodríguez	Los Llanos	ninguna	1218-1912-00280	Santiago P.	Rubén Rivera Rodríguez

Meeting #3:

REUNION DE SOCIABILIZACION CON MUNICIPIO DE SANTIAGO PURINGLA Y SUS COMUNIDADES

Nos reunimos hoy viernes Julio del año 2012 con las comunidades de:

- Sazagua
- Las Lomas
- Y pobladores de sus alrededores

Para tratar temas de socialización del Proyecto Hidroeléctrico Puringla Sazagua.

Atendieron al a reunión un total de 21 personas las cuales hicieron sus consultas e inquietudes, a todas ellas se les respondieron satisfactoriamente quedando todas sus dudas evacuadas.

Se cuenta con una buena cantidad de mano de obra con la cual se va a realizar el proyecto. Se hizo un levantamiento de la mano de obra con que se cuenta y el listado de las personas de las comunidades con su información general y contacto para ser llamados en el inicio de construcción.

Para este año comenzaremos la construcción y para ello tenemos una buena aceptación de parte de las comunidades y están de acuerdo con la construcción del Proyecto Hidroeléctrico Puringla Sazagua.

Adjuntamos hoja de asistencia y fotografías de la reunión

[Signature]
Idida Gámez
Idida Xiloe Gámez Ramírez

[Signature]
Karin Pachame Recarte



E.2. Summary of comments received

>>

Below are the questions/comments that were raised by the participants during the question and answer period:

1. I have concerns regarding the lack of water in the river, and therefore in the communities. We sold land for the project, but would also like access to the river.
2. We were told that we will receive support for water pipes in Las Lomas community, but still don't have it yet.
3. Will there be electrification projects in our communities?
4. I would like to know if you are able to receive our requests for social projects.
5. How much time do we have to wait until the agreed help comes?
6. I do not think it is worth reforesting near the rivers. It would be more useful to reforest at the river watershed.
7. What are the possibilities for the poorest families will receive help and support from the company?

E.3. Consideration of comments received

>>

Below are the responses to the comments received during the question and answer period:

1. The project is using only 5 m3/s of water. Also, please remember that summer brought drought and that last year on this same dates there were intense rains. It is also worth mentioning that we have permission from Honduran authorities for the use of the water (Contrato de aprovechamiento de aguas).
2. Regarding the reforestation, the company has already plant many trees, in accordance to the EIA. The company is running economic difficulties because the project debt has to be paid. Then we ask you for patience. Is not because the company is not willing to support the communities, but so far CECA have only expenditures and no income.
3. The project will sell all of the electricity produced to the national utility, ENEE.
4. Yes, come to see me on Wednesday to have a talk.
5. At this moment we have to generate electricity to have an income. Unfortunately we do not have an estimation of time so far. We recommend you to communicate with your "patronatos" and Municipalities, make a plan on the needs that you have and present them formally to the company.
6. There is an EIA with a complete list of mitigation measures that shall be followed by the company; these same include complete studies on water quality, reforestation, and flora and fauna impact.
7. We have the aim to create jobs to support the economic situation of the communities. We will have a look into specific cases.

SECTION F. Eligibility for inclusion

No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
1	Methodology	The plant is a newly installed hydroelectric power plant in Honduras, a country included in the PoA boundary.	<ul style="list-style-type: none"> - Project Feasibility Studies Project - Commissioning statement from national utility 	In line with the technical description of the project, the project will be installed in Honduras.
2	Methodology	The plant is newly built and does not involve the retrofitting or modification of an existing facility for renewable energy generation.	<ul style="list-style-type: none"> - Project Feasibility Studies 	In line with the technical description of the project.
3	Methodology	The plant has no energy generating equipment which is transferred from another activity and no existing equipment is transferred to another activity;	<ul style="list-style-type: none"> - Project Feasibility Studies 	Since it is a Greenfield project, no existing equipment will be transferred.
4	Methodology	The plant has an installed capacity less than 15MW.	<ul style="list-style-type: none"> - Project Feasibility Studies - PPA 	As per the technical description of the project.
5	Methodology	The plant has a power density of no less than 4 W/m ² (for projects with reservoir).	<ul style="list-style-type: none"> - Project Feasibility Studies 	The project does not include a reservoir with the capacity of storage of "energy" as it is a run-of-the-river project. There is no reservoir, and flooding area, related to the development of the project.

No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
6	Methodology	The plant connects to the National Electricity Grid of the host country, the SIN (Sistema Interconectado Nacional).	<ul style="list-style-type: none"> - Project Feasibility Studies - PPA 	The transmission line will connect to the sub-station, point of delivery to the grid. The substation is located in the same building as the power – house. The power will be then transferred via a triphasic transmission line of 34.5 Kv that measures approximately 10 km in length.
7	Methodology	The plant is not the result of the CPA implementer seriously considering grid connected electricity generation with a different technology as an alternative to the project.	<ul style="list-style-type: none"> - Project Feasibility Studies 	This is supported by a written statement by the CPA implementer.
8	CDM Requirement	No ODA funds from Annex I countries will be used for the development of the project.	<ul style="list-style-type: none"> - Written statement from project owner 	This is supported by a written statement by the project owner.
9	Methodology	The project shall comply with the latest version of the “Guidelines on Assessment of Debundling for SSC Project Activities”.	<ul style="list-style-type: none"> - This can be crosschecked with the PDD published for validation and registered under the UNFCCC webpage. 	The project participant of the CPA, is not participating together in any other hydro power plant under validation or registered in Honduras. The CPA implementer is developing its first hydropower project. This can be crosschecked with the PDD published for validation and registered under the UNFCCC webpage.

No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
10	CDM Requirement	The project shall not seek registration in other emission reduction schemes, or as a stand-alone project under the CDM, neither being included in other programme of activities to avoid any possibility of double counting.	- Carbon development agreement between project owner and carbon developer'	This is assured through the signature of the a carbon development agreement with the carbon credit developer, which provides exclusivity of the carbon credits to one entity.
11	Additionality	Shall demonstrate additionality in line with the requirements of the latest versions of the "Guidelines on the Demonstration of Additionality of Small-Scale Project Activities" or, if applicable, with the "Guidelines for Demonstrating Additionality of Microscale Project Activities".	- Copy of Loan Agreement between bank and project owner - Project financial analysis	<p>The project is facing the access to finance barrier.</p> <p>Banco Atlantida, the bank that has made the loan for the project activity, has explicitly requested that all carbon revenues be used as a debt payment collateral. This condition precedent is clearly stated in the contract between the bank and the project owners.</p> <p>The GUIDELINES FOR OBJECTIVE DEMONSTRATION AND ASSESSMENT OF BARRIERS states <i>the following:</i></p> <p><i>"In case the PPs make the claim for investment barriers, they should demonstrate in the PDD that the financing of the project was assured only due to the benefit of the CDM. Therefore, it should be demonstrated that the loan approval (or other significant financing decision(s)) by the lender takes explicitly the CDM registration into account.</i></p> <p>Rationale: Loan agreements are an objective means to demonstrate the barrier. "</p> <p>https://cdm.unfccc.int/Reference/Gu</p>

No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence																		
				<p>idclarif/meth/meth_guid38.pdf</p> <p>Carbon revenues are explicitly mentioned in the loan agreement between Banco Atlantida and the project owner, so it can therefore be concluded that projected carbon revenues aided in overcoming the access to finance barrier and that the project is additional.</p> <p>It is also important to mention that an ERPA was concluded between the project owner and a CER buyer prior to financial closure, and that the bank was aware of this revenue stream in the financial model of the project activity.</p> <p>Below is information on the nature of the company that owns the project activity, and entities involved in the financing and implementation of the project:</p> <table border="1"> <tr> <td>Name of Project:</td><td>PH Puringla-Sazagua</td></tr> <tr> <td>Name of Project Owner:</td><td>COMPAÑÍA ELECTRICA CENTROAMERICANA S.A. de CV (CECA)</td></tr> <tr> <td>Project Legal Status</td><td>Private</td></tr> <tr> <td>Main business activities</td><td>Special purpose Vehicle</td></tr> <tr> <td>Contact person / title</td><td>Boris Arevalo / General Manager</td></tr> <tr> <td>Address:</td><td>Col. Loma Linda Norte, Ave. Volga, Casa 2312.</td></tr> <tr> <td>Telephone/Fax</td><td>(504) 22023106</td></tr> <tr> <td>E-mail and web address, if any</td><td>boris_arevalo@yahoo.com</td></tr> <tr> <td>Name of the bank financing the project:</td><td>Banco Atlantida</td></tr> </table>	Name of Project:	PH Puringla-Sazagua	Name of Project Owner:	COMPAÑÍA ELECTRICA CENTROAMERICANA S.A. de CV (CECA)	Project Legal Status	Private	Main business activities	Special purpose Vehicle	Contact person / title	Boris Arevalo / General Manager	Address:	Col. Loma Linda Norte, Ave. Volga, Casa 2312.	Telephone/Fax	(504) 22023106	E-mail and web address, if any	boris_arevalo@yahoo.com	Name of the bank financing the project:	Banco Atlantida
Name of Project:	PH Puringla-Sazagua																					
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No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence																
				<div>Website: http://www.bancatlan.hn/</div> <div>TOTAL CAPITAL COST ESTIMATE<table><tr><td>Engineering, Administration and others</td><td>US\$ 8,379,007</td></tr><tr><td>Civil Works</td><td>US\$ 18,340,357</td></tr><tr><td>Electromechanical Equipment</td><td>US\$ 5,211,097</td></tr><tr><td>Transmission Work</td><td>US\$ 209,475</td></tr><tr><td>Total</td><td>US\$ 32,226,951</td></tr><tr><td>Debt:Equity ratio</td><td>80%/20%</td></tr><tr><td>Equity (committed)</td><td>US\$ 9,668,085</td></tr><tr><td>Total debt required</td><td>US\$22,558,866</td></tr></table></div> <div>It should also be noted that the bank follows closely the carbon development agreements that the project has signed, including a significant pre-payment of CERs that was agreed and paid the project owner prior to reaching financial closure. This prepayment of carbon credit revenues was useful in partially financing studies and other project development costs.</div>	Engineering, Administration and others	US\$ 8,379,007	Civil Works	US\$ 18,340,357	Electromechanical Equipment	US\$ 5,211,097	Transmission Work	US\$ 209,475	Total	US\$ 32,226,951	Debt:Equity ratio	80%/20%	Equity (committed)	US\$ 9,668,085	Total debt required	US\$22,558,866
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Total debt required	US\$22,558,866																			
12	Prior Consideration	The start date of the CPA shall not be before start date of the PoA.	- Copy of bank loan agreement between bank and project owner	The start date of the CPA is 28/09/2012 , which is the date in which the bank loan agreement was signed . This date is after the start of the programme on 13/04/2011.																

No	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
13	Local Stakeholder Consultation	The CPA must have undertaken the local stakeholder consultation process before inclusion into the programme and must comply with environmental approval requirements of the host country.	<ul style="list-style-type: none"> - Copies of attendance sheets, advertisements announcing local stakeholder consultation, pictures from consultations and records for questions and answers from consultations. 	The local stakeholder consultations for the Puringla Sazagua took place before project implementation and CPA inclusion, as described in the corresponding section of the CPA DD.
14	Methodology	The CPA shall meet the small-scale or micro scale threshold criteria and remain within those thresholds throughout the crediting period of the CPA.	<ul style="list-style-type: none"> - Project Feasibility Studies - PPA 	The project activity will remain with an installed capacity below the threshold over throughout the crediting period. No expansion is foreseen for the project as per the project documentation.

Appendix 1. Contact information of CPA implementers

Organization name	Compañía Eléctrica Centroamericana S.A. de C.V.
Country	Honduras
Address	Loma Linda Norte Ave. Volga No. 2312, Tegucigalpa
Telephone	504-22354340
Fax	504-22023106
E-mail	boris_arevalo@yahoo.com
Website	
Contact person	Boris Arevalo

Organization name	Anaconda Carbon S.A.
Country	Honduras
Address	3 calle 2 Ave S.O., Edificio Martinez Valenzuela #605, San Pedro Sula
Telephone	504-2550 0387
Fax	504-2550 0387
E-mail	info@anacondacarbon.com
Website	www.anacondacarbon.com
Contact person	Christian Giles

Organization name	Carbonbay GmbH & Co. KG
Country	Germany
Address	Admiralitaetstrasse 55 Koreastraße 7, 20457 Hamburg
Telephone	(+49 40 37004 846 +49 40 37004 7847
Fax	(+49) 40 37004 829 +49 40 37004 7274
E-mail	Henning.huenteler@@carbonbay.com wolfgang.brueckner@carbonbay.com
Website	www.carbonbay.com
Contact person	Henning Huenteler Wolfgang Brückner

Appendix 2. Affirmation regarding public funding

Not applicable.

Appendix 3. Further background information on ex ante calculation of emission reductions

Not applicable.

Appendix 4. Further background information on monitoring plan

Not applicable.

Appendix 5. Summary report of comments received from local stakeholders

Not applicable.

Appendix 6. Summary of post-registration changes**Corrections as per Project Standard Version 09.0 (Appendix 1) :**

- Information regarding installed capacity of generators has been included.

Revision of Monitoring Plan as per Project Standard Version 09 (Appendix 1)

- Details regarding location of meters have been corrected*
- Information regarding the frequency of the calibration stipulated in the PPA has been removed.*

*Paragraph 5, section a, c and e is applicable as changes in these matters were beyond the control of the project participant and the CME.

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
08.1	20 October 2017	Editorial revision to remove appendix “Applicability of methodologies and standardized baselines” from the main part of the form which had been mistakenly kept in the previous version.
08.0	28 June 2017	Revision to: <ul style="list-style-type: none"> • Remove appendix “Applicability of methodologies and standardized baselines” as the appendix is not relevant at the CPA level; • Make editorial improvement.
07.0	7 June 2017	Revision to: <ul style="list-style-type: none"> • Improve consistency with the “CDM project standard for programmes of activities” and with the PDD and PoA-DD forms; • Make editorial improvement.
06.0	24 May 2017	Revision to: <ul style="list-style-type: none"> • Ensure consistency with the “Standard: CDM project standard for programme of activities” (CDM-EB93-A07-STAN) (version 01.0); • Incorporate the “Component project activity design document form for small-scale component project activities” (CDM-SSC-CPA-DD-FORM); • Make editorial improvement.
05.0	15 April 2016	Revision to ensure consistency with the “Standard: Applicability of sectoral scopes” (CDM-EB88-A04-STAN) (version 01.0).
04.0	9 March 2015	Revision to: <ul style="list-style-type: none"> • Include provisions related to statement on erroneous inclusion of a CPA; • Include provisions related to delayed submission of a monitoring plan; • Provisions related to local stakeholder consultation; • Provisions related to the Host Party; • Make editorial improvement.
03.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> • Include the Attachment: Instructions for filling out the component project activity design document form for CDM component project activities (these instructions supersede the "Guidelines for completing the component project activity design document form" (Version 01.0)); • Include provisions related to standardized baselines; • Add contact information on a CPA implementer and/or responsible person/ entity for completing the CDM-CPA-DD-FORM in A.13. and Appendix 1; • Add general instructions on post-registration changes in paragraph 4 and 5 of general instructions and Appendix 6; • Change the reference number from F-CDM-CPA-DD to CDM-CPA-DD-FORM;

<i>Version</i>	<i>Date</i>	<i>Description</i>
		<ul style="list-style-type: none">• Make editorial improvement.
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the component project activity design document form" (EB 66, Annex 16).
01.0	27 July 2007	EB 33, Annex 42 Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: component project activity, project design document		