



Component project activity design document form
(Version 09.0)

BASIC INFORMATION	
Title of the CPA	Coelvihidro 1 Hydro Power Plant, Quipico – Tunki PoA CPA # 1
Scale of the CPA	<input type="checkbox"/> Large-scale <input checked="" type="checkbox"/> Small-scale
Version number of the CPA-DD	7.0
Completion date of the CPA-DD	29/10/2020
Title and UNFCCC reference number of the registered CDM PoA	Tunki Small Scale Hydropower Programme of Activities PoA 6198
Title and reference number of the corresponding generic CPA	Coelvihidro 1 Hydro Power Plant, Quipico – Tunki PoA CPA # 1
Coordinating/managing entity	Carbonbay GmbH & Co. KG.
Host Party	Peru
Applied methodologies and standardized baselines	Methodology AMS-I.D. ver. 18.0 – Grid connected renewable electricity generation Standardized baseline: Not applicable
Sectoral scopes	1
Estimated amount of annual average GHG emission reductions	9,279 tCO ₂ e

SECTION A. Description of component project activity (CPA)

A.1. Purpose and general description of CPA

The CDM Programme Activity (CPA) "Coelviidro 1 Hydro Power Plant, Quipico – Tunki PoA CPA # 1" is a new small scale run of the power plant with an installed capacity of 1.68 MW¹ connected to the national Peruvian electricity grid (SEIN) and is supplied to users (which signed agreement with COELVISAC) through SEIN grid network. The project will use a horizontal Francis turbine for a net height of 28 m and 7 m³/s water flow. The power plant will produce 13,171 MWh per year using water flow from an irrigation channel (Quipico Channel²). The turbinated water will be discharged to the Quipico channel and used for irrigation purposes.

The CPA is implemented in the province of Huaura, Peru and is expected to reduce 9,279 tCO₂ every 12 months, leading to a 64,952 tCO₂e over the second crediting period (7 years).

A.2. Location of CPA

The location of the project is in the km 31.5 of the Huaura- Sayan road, San Miguel community, district of Sayan, province of Huaura, department of Lima, Peru.

The project's unique identification coordinates are the ones related to the power house, the water intake and the water devolution point. The CPA coordinates are listed in the following table:

Table 1: Project coordinates for the power house, water intake and water devolution³

Item	Location (coordinates - UTM WGS84, m)	Location (decimals)	Location (Degrees, minutes,
Power house	8'770'008 N, 247'085 E	-11.11781423, -77.31547914	11° 7' 4.13"S 77° 18' 55.72"W
Water intake	8'769'890 N, 247'010 E	-11.11887526, -77.31617381	11° 7' 7.95"S 77° 18' 58.23"W
Water devolution	8'770'007 N, 244'876 E	-11.11766695, -77.33569134	11° 7' 3.60"S 77° 20' 8.49"W

The CPA location is also detailed in Figures 1 and 2

¹ Nameplate capacity

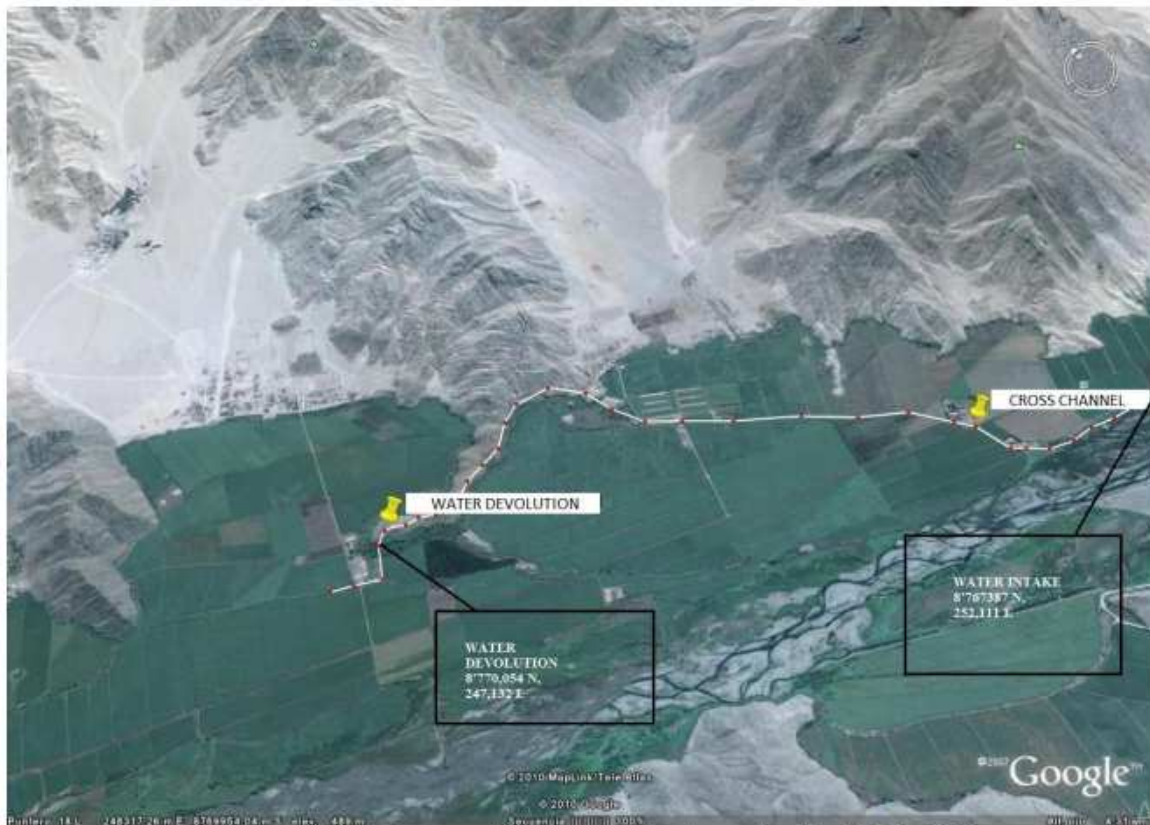
² Hidroequipos (2011). Quipico project study of the hydro power plant

³ Water Study Approval by ANA and Power House Map

Figure 1: Project location. Level: Regional and District



Figure 2: Quipico's Water Channel Location



Source: Technical description document for the local water authority (ALA), 2010.

A.3. Technologies/measures

The project consists in a new small scale run of the power plant with an installed capacity of 1.68 MW⁴ connected to the national Peruvian electricity grid (SEIN) and is supplied to users (which signed agreement with COELVISAC) through SEIN grid network. The project will use a horizontal Francis turbine for a net height of 28 m and 7 m³/s water flow. The power plant will produce 13,093 MWh per year (which represents a load factor of 88,97%) using water flow from an irrigation channel (Quipico Channel), with an expected operational lifetime of 40 years.

The main monitoring equipment is the electricity meter, which will be installed after the transformer at the 22.9 kv line which is connected to the national grid (see figure at appendix 4).

The equipment installed and the know-how for the construction of the plant will be imported from china.

A.4. Coordinating/managing entity

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A.5. Parties and CPA implementers

Parties involved	CPA implementers	Indicate if the Party involved wishes to be considered as CPA implementer (Yes/No)
Peru (host Party)	Private Entity (implementer): Consorcio Eléctrico Villacurri SAC (COELVISAC)	No
Germany	Private Entity (coordinating entity): Carbonbay GmbH & Co. KG	No
Sweden	Public Entity: Sweden Energy Agency	No

A.6. Public funding of CPA

The CPA does not receive or will receive any public funding. Therefore there is not diversion of official development assistances.

⁴ Nameplate capacity

A.7. History of CPA

The present small-scale CPA is not registered as an individual CDM project and is not part of another PoA.

The presented CPA is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs.

A.8. Debundling

The de-bundling analysis is presented in the following table:

Table 2: De-bundling analysis for the CPA

De-bundling condition	Analysis
There is already an activity ((i) registered small-scale CPA of a PoA, (ii) an application to register another small-scale CPA of a PoA or (iii) another registered CDM project activity) that 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 sectoral scope.	There is no activity that complies with these conditions.
There is already an activity with a boundary that is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.	There is no activity that complies with this condition.

Since any of the de-bundling conditions are fulfilled by the proposed CPA, it is not considered a de-bundled component and can be included in the Tunki Small Scale Hydropower Program of Activities.

SECTION B. Application of methodologies and standardized baselines**B.1. References to methodologies and standardized baselines**

The Tunki PoA and therefore the Coelvidro 1 CPA is developed under the provisions of the methodology AMS-I.D.: Grid connected renewable electricity generation- Version 18.0 (EB 81, Annex 24)⁵

The applied tools and guidelines at PoA and CPA level are: “Tool to calculate the emission factor for an electricity system” version 07.0 (EB 100, Annex 4)⁶.

“Tool for the demonstration and assessment of additionality” version 07.0.0 (EB 70, Annex 8)⁷

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Demonstration of additionality of micro scale project activities” version 09.0 (EB 101, Annex 15)⁸..

⁵ <https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTFQQOFQQH4SBK>

⁶ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf>

⁷ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>

⁸ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-19-v9.pdf>

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

The description of the sources and gases included in the project boundary of the CPA are listed in the table below

Table 3

Source		GHG	Included ?	Justification/Explanation
Baseline	The Power Grid electricity production from the host country	CO ₂	Included	According AMS.I.D. , only CO ₂ emissions from electricity generation should be accounted.
		CH ₄	Excluded	Minor emission source according to AMS.I.D.
		N ₂ O	Excluded	Minor emission source according to AMS.I.D.
Project activity	CPA electricity production	CO ₂	Excluded	Minor emission source according to AMS.I.D.
		CH ₄	Excluded	Minor emission source according to AMS.I.D.
		N ₂ O	Excluded	Minor emission source according to AMS.I.D.

The Coelvihidro 1 Hydro Power Plant, Quipico – Tunki PoA CPA # 1 is located within the boundaries of the republic of Peru.

B.3. Establishment and description of baseline scenario

As per AMS I.D. “Grid connected renewable electricity generation” version 18.0, and because the project activity is the installation of grid-connected renewable power plant/unit (includes new, capacity addition/replacement/retrofit projects), the baseline scenario is

“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.”

Following the methodology tool “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” (Version 03.0.1), stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period:

Step 1: Assess the validity of the current baseline for the next crediting period**Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies**

Current baseline (operation of grid-connected power plants and by the addition of new generation sources) complies with all relevant mandatory national and/or sectoral policies which have come into effect after the submission of the project activity for validation or the submission of the previous request for renewal of the crediting period and are applicable at the time of requesting renewal of the crediting period, thus go to Step 1.2.

The baseline scenario identified at the validation of the CDM PoA and CPA was the electricity delivered to the grid by the CPA, would have otherwise been generated by the operation of grid

connected power plants and by the addition of new generation sources into the grid. Thus this CPA was a voluntary investment which intends to replace equivalent amount of electricity at grid from renewable source. The CPA implementer was not bound to incur this investment; hence absence of project activity (i.e. the investment) does not lead to any continued baseline practice for CPA implementer within their scope whereas the continued operation of the project activity would continue to replace equivalent amount of electricity at grid. Hence, the same baseline as identified in the previous crediting period is still valid for the project. Therefore, the assessment of the changes in market characteristics is not required for the renewal of the project's crediting period under CDM.

Notwithstanding the impressive growth of Peruvian electricity sector, there are enormous scope of further improvements in projects those lead to GHGs emission reductions. As per International Renewable Energy Agency (IRENA), the Peruvian electricity mix is diversified, clean and of low cost. It consists of 54% renewable energy and 46% conventional energy. The current policies promote social inclusion, which has led to 92% of access to electricity and the current policy goal is to reach 99% of connectivity in 2019, by implementing a program to install 500.000 solar panel systems in rural areas. Peru aims to continue developing towards a low carbon energy mix, therefore for 2025 it has determined a new objective of 60% renewable energy and 40% gas in the electricity mix, securing access to electricity for the whole population. Hence, there exists scope for reducing the CO₂ emissions in the country by increased use of renewable energy sources including hydroelectric energy.

Furthermore, the CME has considered latest available data (2018) of the Committee on Economic Operation of the Electric System (COES) regarding annually public information of plants/ units generation and fossil fuel consumption in the Peruvian National Inter-connected Grid (SEIN) at the time of requesting renewal of the crediting period for establishing the baseline emission factor, which itself considered all the new circumstances.

Step 1.2: Assess the impact of circumstances

Electricity delivered to the grid by the project activity would have still otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, i.e. no new circumstances make a continued validity of the current baseline not plausible.

Step 1.3: Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

As explained in step 1.2, the baseline scenario was the electricity import/generation from the power plants connected to the electricity grid. The project activity in green field project and there is no any baseline equipment or investment involved in project activity. Therefore this condition is not applicable to the project activity.

Step 1.4: Assessment of the validity of the data and parameters

This step stipulates that "Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity.

In the context of the present project activity the emission factor has been updated along with the approach used to calculate the emission factor

Step 2: Update the current baseline and the data and parameters

As evident from the explanation provided above that the baseline scenario remains unchanged.

In line with the project standard version 02.0, the impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant EB guidance with regard to renewal of the crediting period at the time of requesting renewal of crediting period; and the correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

B.4. Estimation of emission reductions

B.4.1. Explanation of methodological choices

According to the selected approved methodology (AMS I.D. v18.0), the results of applying the steps and formulas to determine the emission reductions are:

PROJECT EMISSIONS (PE_y)

According to the methodology, project emissions are related to the operation of geothermal power plants, water reservoirs or on-site consumption of fossil fuels. Since the project activity is not a geothermal power plant, has a water reservoir or consumes fossil fuels, project emissions are zero as stated in section 1.6.1 of PoA-DD.

$$PE_y = 0$$

BASELINE EMISSIONS (BE_y)

According to section 1.6.1 of the PoA-DD, the baseline emissions for new power plants (are the result of the multiplication of the net electricity supplied to the grid as a result of the implementation of the project and the CO₂ emission factor of the grid in year.

As per methodology AMS-I.D. version 18.0, baseline emissions, which include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity are:

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

The project activity being a greenfield power plant, here $EG_{PJ,y} = EG_{PJ, facility, y}$

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

LEAKAGE (LE_y)

According to the applicable methodology, leakage calculation is considered if the energy generating equipment is transferred from another activity. Since the project will acquire new equipment, leakage is zero.

$$LE_y = 0$$

B.4.2. Data and parameters fixed ex ante

Data/Parameter	$EF_{grid, BM, y}$
Data unit	tCO ₂ /MWh
Description	The build margin emission factor
Source of data	Official data provided by the administrator of the grid or the relevant national authority (COES) publicly available in its web site or directly sent to the coordinating/managing entity
Value(s) applied	2019: 0.6532
Choice of data or measurement methods and procedures	----

Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later

B.4.3. Ex ante calculation of emission reductions

a) Calculation of the $EF_{CO_2,grid,y}$ or $EF_{grid,CM,y}$

Calculate the operating margin emission factor according to the selected method

The dispatch data analysis operating margin emission factor ($EF_{grid,OM-DD,y}$) is: 0.8583 tCO₂/MWh.

Calculate the build margin emission factor

The build margin emissions factor ($EF_{grid,BM,y}$) is: 0.6532 tCO₂/MWh.

Calculate the combined margin (CM) emissions factor EF_y .

The combined margin emissions factor is: 0.7045 tCO₂/MWh.

b) Net electricity Generation ($EG_{BL,y}$)

The net electricity generation of the project activity is listed in table 4.

Table 4. Net Electricity Generation

Year	$EG_{BL,y}^9$ (MWh)
2020*	3292.88
2021	13171.54
2022	13171.54
2023	13171.54
2024	13171.54
2025	13171.54
2026	13171.54
2027*	9878.65

*The second crediting period starts on 19 September, 2020 and ends on 18 September, 2027.

c) Baseline Emissions (BE_y)

Table 5. Baseline Emissions

Year	BE_y (tCO ₂ /yr)
2020*	2,319
2021	9,279
2022	9,279
2023	9,279
2024	9,279
2025	9,279
2026	9,279
2027*	6.959

*The second crediting period starts on 19 September, 2020 and ends on 18 September, 2027.

EMISSION REDUCTIONS (ER_y)

Table 6. Emission Reductions

⁹ Hidroequipos (2011). Technical report submitted to the Ministry of Energy and Mines for approval of the energy concession of the power plant, p. 64

Year	$ER_y(tCO_2/yr)$
2020*	2,319
2021	9,279
2022	9,279
2023	9,279
2024	9,279
2025	9,279
2026	9,279
2027*	6,959

*The second crediting period starts from 19/09/2020 and ends on 18/09/2027.

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)
2020*	2,319	0	0	2,319
2021	9,279	0	0	9,279
2022	9,279	0	0	9,279
2023	9,279	0	0	9,279
2024	9,279	0	0	9,279
2025	9,279	0	0	9,279
2026	9,279	0	0	9,279
2027*	6,959	0	0	6,959
Total	64,952	0	0	64,952
Total number of crediting years	7			
Annual average over the crediting period	9,279	0	0	9,279

*The second crediting period starts from 19/09/2020 and ends on 18/09/2027

B.5. Monitoring plan

B.5.1. Data and parameters to be monitored

Data/Parameter	$EG_{BL,y} / EG_{PJ, facility, y}$
Data unit	MWh
Description	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y / Quantity of net electricity supplied to the grid by the project facility in year y
Source of data	Measured by two electricity meters to be specified in each CPA and or COES information
Value(s) applied	13,172

Measurement methods and procedures	<p>The net electricity supplied to the grid will be measured continuously and recorded at least each hour.</p> <p>A high level of accuracy of the measurements will be achieved due to the use of high-precision equipment. The project electricity meter is an electronic device with an accuracy of 0.26. The meter will be located at the power plant location. Due to the inverse injection of electricity to the local grid, a measurement at the substation of connection would not be technically appropriate.</p> <p>The project will measure the net electricity after the internal consumption, which will be measured by a second installed meter</p>
Monitoring frequency	The net electricity supplied to the grid is measured continuously and recorded at least each hour according to COES requirements
QA/QC procedures	<p>Measuring equipment will be certified to national or IEC standards and calibrated according to the national standards and reference points or IEC standards and recalibrated at appropriate intervals according to manufacturer specifications, but at least every three years.</p> <p>The meter readings will be cross-check with available internal and/or external information as electricity invoices or COES information.</p> <p>In case of troubles with the energy readings or meter operation, cross check values shall be applied in the emission reduction calculations</p>
Purpose of data	Calculation of baseline emissions
Additional comment	<p>Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.</p> <p>Complete information of every year during the crediting period will be available by COES during the first six months of the following year.</p>

Data/Parameter	$EF_{grid, CM, y}$
Data unit	tCO_2/MWh
Description	Emission factor for the Peruvian interconnected grid (SEIN)
Source of data	Official data provided by the administrator of the grid or the relevant national authority
Value(s) applied	2019: 0.7045
Measurement methods and procedures	The baseline emission factor ($EF_{grid, CM, y}$) is calculated as a combined margin (CM), consisting of the combination of operating margin ($EF_{grid, OM, y}$) and build margin ($EF_{grid, BM, y}$) factors
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	<p>The PoA CPAs will use the $EF_{grid, CM, y}$ calculated by the coordinating/managing entity with the most recent value. The value will be updated using official information from the administrator of the national grid when the information is available.</p> <p>Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later</p>

Data/Parameter	$EF_{grid, OM-DD, y}$
Data unit	tCO_2/MWh

Description	The Dispatch Data Analysis OM emission factor
Source of data	Official data provided by the administrator of the grid or the relevant national authority (COES) publicly available in its web site or directly sent to the coordinating/managing entity. Raw data for generation is based on the 15 minute records of every power plant
Value(s) applied	2019: 0.6532
Measurement methods and procedures	The dispatch data analysis operating margin emission factor ($EF_{OM-DD,y} = EF_{grid,OM,y}$ in tCO ₂ /MWh) is a method which involves the power unit that are actually dispatched at the margin during each hour h, where the power unit are separated in power unit in the top of the dispatch n and other power unit.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	$EG_{PJ,h}$
Data unit	MWh
Description	Electricity displaced by the project activity in hour h of year y
Source of data	Project records and/or COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	Directly measured and/or based on the information provided by COES. The proportion of data to be monitored is 100% and the data will be archived electronically.
Monitoring frequency	Hourly
QA/QC procedures	Information of invoices of electricity sold to the grid will be crosschecked with metered information and/or COES information. To ensure consistency, and if it's applicable other records may be used if it is necessary
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	$EG_{PJ,y}$
Data unit	MWh
Description	Total electricity displaced by the project activity in year y
Source of data	Project records and/or COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation.
Measurement methods and procedures	The proportion of data to be monitored is 100% and the data will be archived electronically
Monitoring frequency	Hourly
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	$EF_{EL,DD,h}$
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Data unit	tCO ₂ /MWh
Description	CO ₂ emission factor of power unit in the top of the dispatch order in hour h in year y
Source of data	Input data provided by COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	To calculate EF _{EL,DD,h} the second option is chosen because for the power units, data on fuel consumption and electricity generation is available. The proportion of data to be monitored is 100% and the data will be archived electronically
Monitoring frequency	Hourly
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	EG_{n,h}
Data unit	MWh
Description	Electricity generated and delivered to the grid by power units n in hour h
Source of data	Data provided by COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	The proportion of data to be monitored is 100% and the data will be archived electronically
Monitoring frequency	Hourly
QA/QC procedures	Is official data
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	EF_{EL,n,y}
Data unit	tCO ₂ /MWh
Description	CO ₂ emission factor of power unit n in year y
Source of data	Input data provided by COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	The EF _{EL,n,y} is determined for method the simple operating margin option A.2. The proportion of data to be monitored is 100% and the data will be archived electronically.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	η_{m,y}
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Data unit	--
Description	Average net energy conversion efficiency of power unit m in year y (ratio)
Source of data	Data provided by COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	Each year this data will be checked with the last available annual report of COES. The proportion of data to be monitored is 100% and the data will be archived electronically.
Monitoring frequency	Yearly
QA/QC procedures	If the data used is significantly lower than the default value of the applicable technology, CPA owners should assess the reliability of the values, and provide appropriate justification if deemed reliable. Otherwise, the default values above shall be used
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	$F_{CO_2, m, i, y}$
Data unit	kgCO ₂ /TJ
Description	Average CO ₂ emission factor of fuel type i used in power unit m in year y
Source of data	IPCC default values at the lower 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
Value(s) applied	Diesel Oil = 72,600 Residual Fuel Oil = 75,500 Natural Gas = 54,300 Coal = 87,300
Measurement methods and procedures	
Monitoring frequency	N/A
QA/QC procedures	Every update of IPCC reports will be taken into account.
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	w_{OM}
Data unit	%
Description	Weighting of operating margin emissions factor
Source of data	As indicated in the "Tool to calculate emission factor for an electricity system" v 7.0 .
Value(s) applied	The first crediting period, $w_{OM} = 0.5$ The second and third crediting period, $w_{OM} = 0.25$
Measurement methods and procedures	
Monitoring frequency	Annually
QA/QC procedures	N/A

Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	W_{BM}
Data unit	%
Description	Weighting of build margin emissions factor
Source of data	As indicated in the "Tool to calculate emission factor for an electricity system" v.7.0
Value(s) applied	The first crediting period, w _{BM} = 0.5 The second and third crediting period, w _{BM} = 0.75
Measurement methods and procedures	
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

Data/Parameter	Merit Order
Data unit	Text
Description	The merit order in which power plants are dispatched by documented evidence
Source of data	Data provided by COES
Value(s) applied	Data used is presented in the spreadsheet for Grid Emission Factor calculation
Measurement methods and procedures	For each year, the variable cost of thermal plants in the SEIN that are in effect in December will be used. The proportion of data to be monitored is 100% and the data will be archived electronically.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	Calculation of baseline emissions
Additional comment	Data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

B.5.2. Sampling plan

NA

B.5.3. Other elements of monitoring plan

The purpose of the monitoring plan is to measure and record the net electricity delivered to the electrical grid:

1. Management Structure and Responsibilities

The CPA owner is the overall responsible for daily monitoring and reporting and has the obligation to follow the PoA requirements in its local management system. The manager of the proposed

project is the responsible person for reporting the monitoring data in a monthly basis and assure the correct maintenance and operation of the measuring and monitoring equipment, including the existence of appropriate calibration certificates if necessary.

Data Collection: The electricity supplied by the project activity to the grid is measured by calibrated electricity meters. The parameter is monitored at the project site and/or at the substation and crosschecked with the internal data of electricity commercialized. Data is monitored continuously, recorded hourly and consolidated in a monthly basis as required by the applicable methodology.

In case of troubles with the energy readings or meter operation, cross check values shall be applied in the emission reduction calculations.

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

Data Calibration: All measurements will be conducted with equipment certified to national or IEC standards and calibrated according to the national standards and reference points or IEC standards and recalibrated at appropriate intervals according to manufacturer specifications, but at least once in three years.

Data Report: Data recorded and the invoices will be consolidated on a monthly basis and will be checked for 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 report will be consolidated monthly.

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 or the last issuance of CERs, whichever occurs later.

2. Data Quality Assurance and Control

An internal procedure to secure the correctness of data will be employed. Data and reports will be checked internally to secure correctness of data. In case of mistakes, corrective actions will be applied to avoid future similar mistakes.

3. Training and Monitoring Personnel

All people that participate in the monitoring process will be suitably qualified and trained in the operation and maintenance of the plant (CPA owner responsibility). They will also receive a training session on the application of the monitoring plan.

4. Emission factor calculation

The combined margin emission factor used in the emission reduction calculation will be the annually updated factor provided by the coordinating/managing entity.

5. Verification and Monitoring Results

The monitoring report will be prepared by the coordinating/managing entity. It shall contain 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 developed in a non-Annex 1 Parties 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, in no ways and means are required to monitor leakage from the project activity.

SECTION C. Start date, crediting period type and duration

C.1. Start date of CPA

23/08/2011

C.2. Expected operational lifetime of CPA

40 years

C.3. Crediting period of CPA

C.3.1. Type of crediting period

Renewable crediting period

C.3.2. Start date of crediting period

19/09/2020

First crediting period: 19/09/2013 to 18/09/2020

C.3.3. Duration of crediting period

7 years 00 months (19/09/2020 to 18/09/2027)

Previous crediting period: 19/09/2013 to 18/09/2020

SECTION D. Environmental impacts

D.1. Analysis of environmental impacts

The project does not require an EIA for the power plant of transmission line facilities. A description of potential environmental impacts is described in this section.

Due to the magnitude and technology of the project activity, the impacts are considered not significant according to the national environmental regulation. As stated in the PoA-DD, the project does not need to develop and Environmental Impact Assessment, it only has to present a formal statement of environmental conservation compliance.

The project will be a run of river power plant with no reservoir, and will use water from an irrigation channel and will return the turbinated flow in a downstream point of the same channel. The project will be located in an intervened area with agricultural lands, sport facilities and a small town center. There are only 104 productive trees and 48 small plants in the project location, which may be extracted for the project implementation.

When the power plant is constructed there will be mobilization of people, trucks, and increment in noise levels. All of those impacts will be temporary.

According to the updated Energy Concession Law 25844, for the development of hydroelectric power plants of over 500 kW it is needed a concession (Article 3o), but generation with renewable sources up to 20MW does not requires the presentation of an Environmental Impact Assessment – EIA (Article 38 o)

D.2. Environmental impact assessment

According to the updated Energy Concession Law 25844, for the development of hydroelectric power plants of over 500 kW it is needed a concession (Article 3o), but generation with renewable sources up to 20MW does not requires the presentation of an Environmental Impact Assessment – EIA (Article 38o)

SECTION E. Local stakeholder consultation**E.1. Modalities for local stakeholder consultation**

The National Found for Environment (FONAM) was in charge of the stakeholder consultation of the CPA. A final inform was submitted to the coordinating/managing entity on July 2011. The stakeholder process had the objective to determine the influence area and main actors informed about the project characteristics, environment, climate change and CDM concepts as well as the benefits of the power plant implementation.

During the process formal interviews and poll were developed for main actors and population in order to obtain information related to socio – environmental conditions and knowledge of environmental issues, CDM and the project itself. After this recognition phase a round of diffusion workshops and a final workshop took place.

People were invited trough letters in the case of local authorities, and flyers or panels in the case of the general population. The areas considered in the process were 9: San Miguel, Santa Elvira, Chambara Alta, Chambara Baja, San Gerónimo, Los Ángeles, El Carmen, Quipico and San Martin; all located in a 5 Km radium from the project. A total of 21 local authorities were identified and 20 directly contacted and informed about the project activity.

Workshops where held in San Miguel (19 kids and 2 teachers), San Martin (July 14th, 2011, 7 assistants) and Chambara Baja (July 14th, 2011, 7 assistants). A final work shop was held on July 15th, 2011 with 21 assistants in San Miguel with an invitation process in the 9 identified areas.

There were 88 polls, 58 before the diffusion process and 30 after that.

E.2. Summary of comments received

During the interviews with the local authorities and population the following comments were received:

- The leader of San Miguel knew about the project and considered that there would not be any negative impacts and the energy benefits and attractiveness of the facilities would be positive for the community.
- The school head master in San Miguel did not know about the project but considered it will benefit the community.
- An agriculture worker in San Miguel has noticed changes in the local climate conditions, was aware about the project but was not clear about the benefits of it.
- The responsible of the Health Center in Santa Elvira was not aware about the project.
- The president of the social program “Vaso de Leche” in San Miguel (Glass of Milk) was aware about the project but was not clear about the benefits of it.
- The school head master in Chambara Alta was aware of the project and considers that hydro power plants are a source to reduce contamination, supply cheap energy for the local population (displacing the use of candles and fuels in each house) and that this project will create local jobs.
- The school head master in Chambara Baja was not aware about the project.
- The Peace Judge in Chambara Baja was aware about the project but was not clear about the benefits of it.

- An agriculture worker in Los Angeles knew the project with other name and was not satisfied since he did not participate in workshops before.
- The treasured in Los Angeles as aware about the project considered it would help the local development.
- The president of the social program “Vaso de Leche” in San Geronimo was aware about the project, considers it positive but it not certain about the benefits for the local actors.
- A professor in El Carmen was not aware about the project.
- The president of El Carmen considers that the project will benefit the local communities.
- A public school director was not aware about the project, but since it will provide a service to the district will be positive and will create job offers.
- A member of the social program “Vaso de Leche” in Quipico was aware about the project and considers it positive since will increase the local tax incomes. The president of this program was not aware of the project.

After the interview and poll process, it can be seen than 98% of the people considers that is positive to protect the environment. After the workshops, polls where developed in order to assess the understanding of the topics, and the majority now considers informed about climate change issues and the proposed CPA. An 80% acceptance of the project was found after the diffusion process.

During the workshops, the assistants expressed about:

- Requests for improvements in the local center and school.
- Have job offers for Chambara residents.
- Benefits for the Municipality of Sayan.
- Specific conditions for jobs.

As a conclusion of the FONAM study the local stakeholders accept the project implementation and the CPA owner has an open policy for communication with the local communities.

E.3. Consideration of comments received

The CPA owner will evaluate the feasibility to collaborate with the improvements in the local facilities. Local jobs will be created when the project starts construction (and a special communication will be done with the constructor company in order to not exclude potential local workers) and all the municipal regulations will be applied.

There is a social investment plan for the project that considers that the CPA owner will help in the financial closure of the rehabilitation of the Quipico channel through a direct contribution to the District Board of Irrigation Users of Huaura of more than US\$ 600,000, and that any residual amount of money of this total investment will be redirected for improvements in local facilities as the community centers and elementary schools of San Miguel and Chambara.

SECTION F. Eligibility for inclusion

The proposed CPA fulfills all the eligibility criteria set in the PoA as described in Table 7

Table 7: Fulfillment of CPA eligibility criteria

No.	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
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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
1	Inclusion criteria	Each CPA will involve one or several hydro power projects located in Peru. In aggregate, the hydro power plants will comply with the SSC threshold (see eligibility criteria number 2)	Based Quipico Project Study made by <i>Hidroequipos Consultoria y Obras SRL</i> and project study of water use.	The project is a run of the river power plant located in the region of Lima, Peru.

No.	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
2	Fulfilling the methodology	<p>Fulfill the SSC methodology AMS I.D “Grid connected renewable electricity generation” version 18.0 as listed in section I.1 of the present PoA – DD and calculate the emission reductions as stated in section I.6.. As a resume, a hydro power project could be implemented under this program if:</p> <ol style="list-style-type: none"> 1. Will supply electricity and displaces electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit (thermal power plants connected to the national grid). 2. Will be a new run-of-river hydropower plant up to 15 MW; 2. Will be a new power plant up to 15 MW developed with an existing reservoir with no change in the volume of the reservoir; or where the volume of the reservoir is increased considering a final power density greater than 4 W/m²; 3. Will be a new power plant up to 15 MW developed with a new reservoir (e.g. upstream regulatory dam or natural lagoons typical for Peruvian hydrological planning) where the power density of the power plant is greater than 4 W/m². 4. Will be a capacity addition over an existing hydropower plant, to increase in the installed power generation capacity keeping the total power capacity below 15 MW, by means of: (i) the installation of a new power plant besides the existing power plant/units, or (ii) the installation of new power plant/units, additional to the existing power plant/units. The existing power plant/units continue to operate after the implementation of the project activity. 5. Will be a retrofit (or Rehabilitation or Refurbishment) over an existing hydropower power plant than involves an investment to repair or modify an existing power plant/unit to resume the operation of closed power plants. Retrofits shall only include measures that involve capital investments and not regular maintenance or housekeeping measures to increase the power generation capacity keeping the total installed power capacity of the facility below 15 MW. 6. Will be a replacement of one or several existing unit(s) at an existing power plant that involves investment to increase in the installed power generation capacity keeping the total installed power capacity of the facility below 15 MW. 	Based Quipico Project Study made by <i>Hidroequipos Consultoria y Obras SRL</i>	<p>The CPA fulfills the applicability conditions of the AMS I.D. The project is a new run of river power plant of 1.68 MW with no reservoir, do not use fossil fuel nor biomass residues for its operation and has the information to calculate emissions as stated in the PoA-DD. Since is a greenfield project, the scrapping procedure do not need to be applied.</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
3	Transfer of energy equipment	No energy generating equipment is transferred from another activity, located in a non-annex I party and no existing equipment is transferred from the project to another activity.	Based Quipico Project Study made by <i>Hidroequipos Consultoria y Obras SRL</i> that considers a new power plant.	The project will only acquire new equipment for its operation.
4	No double counting	To avoid double counting of emission reductions each CPA-DD shall be uniquely identified and defined in an unambiguous manner. Then each CPA owner will submit to the CME specific geographic information (region, department, district and the coordinates of the water intake, water discharge and power house). In addition the CME will set in the CPA-DD and internal documentation a unique CPA identification name and number and the complete name and contacts of the CPA owner, installed capacity.	Based on the Water Study Approval by the ANA and Power House Maps of the CPA owner.	The CPA (CPA-DD) has a CME internal code (T002). The official coordinates of the project are set in section A.2 of this CPA-DD and CME internal documentation. The official start and end date of the crediting period will be the ones available in the UNFCCC website. As an internal process, the CME will contrast this information against a new potential CPA. All the specific geographic information (region, department, district and the coordinates of the water intake, water discharge and power house) are also registered in internal CME documentation and in the CPA-DD.
5	Start date	Do not have a start date (as defined by the UNFCCC Glossary of Terms) before July 7th, 2011. Since the start date can be defined by different project milestone, the CPA owner shall provide formal documentary evidence to the CME for its evaluation when the start date has already occurred (e.g. contracts for supplying turbines, contract for civil works, payments set in PPAs, contracts with the entity financing the project, among others according to the project characteristics).	Land contract signed.	The CPA has a start date after July 7th, 2011 as stated in section C.1. The CPA owner has a contract for land acquisition and approval to support the irrigation channel rehabilitation dated 23/08/2011

No.	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	Description of this CPA in relation to the criterion and supporting evidence
6	Demonstration of additionality	The CPA shall be able to demonstrate additionality with one of the options listed in section C of the present PoA – DD, taking into consideration that approach 1 is only for projects up to 5 MW of installed capacity (list of technologies additional by default or CPA placed in an underdeveloped area). Any project over 5 MW shall demonstrate a financial additionality	Based in the socio-economic data of Peru, from SISFOH (of the Ministry of Economy and Finance at the moment of submitting the CPA-DD).	The CPA can demonstrate additionality using approach 1 of the PoA DD, since is developed in an underdeveloped area of Peru, using irrigation channel in a rural area.
7	Stakeholder consultation	The CPA owner shall develop a local stakeholder consultation process before its inclusion in the PoA as stated in Section D of the present PoA – DD.	FONAM's report, invitations assistance list and agreement record.	The local stakeholder consultation has been developed before the inclusion of the CPA, as stated in section D of the present CPA-DD.
8	Environmental impacts	The CPA owner shall describe any potential environmental impacts of the hydro project in the CPA-DD. At the moment of submitting the PoA for registration, the Peruvian regulation does not require Environmental Impact Assessments (EIAs) for hydro projects under 20 MW as stated in section C of the present PoA – DD. The potential impacts of the transmission line shall be described according to the applicable environmental assessment report, if applicable (EIA or Environmental Impact Declaration). If the transmission line is part of the hydro project to be included, and if it is applicable, the CPA owner shall have the EIA or DIA approved in order to be included in the PoA.	The existing energy regulation (Energy Concession Law 25844 ¹⁰) does not require the development of an environmental assessment for the power plant or the transmission line.	The CPA does not need to develop an environmental impact assessment (EIA) according to the applicable regulatory framework and the description of the potential impacts has been properly made in sections D.1 and D.2 of the CPA-DD.
9	Funding	The CPA owner will sign a formal document affirming that funding from Annex I parties, if any, do not result in a diversion of official development assistance.	Sworn declaration based on format developed by the CME.	The formal documents have been signed by the CPA owner since the project will not use funding from Annex I parties.

¹⁰ Web link: <http://www.minem.gob.pe/minem/archivos/file/Electricidad/normatividad/dl25844.pdf> (Law 25844 updated with the current modifications). Download at July 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
10	Connection to the grid	During the operation phase, the power plant will be connected to the Peruvian National Electricity Grid (SEIN), and will follow all national regulations established for the development and approval of hydro power plants under 20 MW ¹¹ . Particularly, the project to be evaluated as a new CPA shall have the study of water use ("Estudio de Aprovechamiento Hidrico") approved by the National Water Authority ¹² (ANA). This study will ensure a social and environmental analysis required by the Peruvian government. For more details of the Peruvian Electric Market please see Annex 3.	Based Quipico Project Study made by <i>Hidroequipos Consultoria y Obras SRL</i>	The project will be connected to the SEIN in order to sell its electricity and power production and has the hydrological study approved by ANA.
11	Small-scale threshold	Every CPA owner will sign a formal document affirming that the CPA, in aggregate shall meet the small-scale thresholds (up to 15 MW of installed capacity) throughout the crediting period of the CPA. Micro- scale projects using approach 1 in the additionality assessment (of section E.5) shall sign a formal document affirming that the CPA, in aggregate remain below the micro- scale threshold (5 MW of installed capacity) throughout the crediting period of the CPA.	Sworn declaration based on format developed by the CME. Size based on Quipico Project Study made by <i>Hidroequipos Consultoria y Obras SRL</i>	The CPA cannot technically increase its capacity up to more than 5 MW. The formal documents have been signed
12	Debundling	The CPA owner shall not be a de-bundled SSC or micro scale project. The CME will develop a previous de- bundling analysis based on the "Guidelines on Assessment of de bundling for SSC Project Activities", (version 03) and the CPA owner will sign it as sign of conformity with the content and results.	Based on format developed by the CME	Based on format developed by the CME
13	Participation in other carbon market mechanism	The CPA under the PoA is neither registered as an individual CDM project activity nor included as a CPA in another registered CDM PoA. The CPA owner shall sign a formal document stating that the project is not or will not participate in other carbon market mechanism.	Sworn declaration based on format developed by the CME. Information of CDM projects in UNFCCC webpage.	The CPA owner is not submitting the project as a traditional CDM project, as part or another PoA or to another carbon mechanism existing. In addition all the formal documentation has been signed

¹¹ Energy Concession Law. Web link: <http://www.minem.gob.pe/minem/archivos/file/Electricidad/normatividad/dl25844.pdf> (Law 25844 updated with the current modifications). Download at July 2011.

¹² Institutions, licences and studies may change its names in the future. In that case the equivalent (or upgraded) approval shall be adopted for the CPA.

The additionality of the proposed CPA shall be demonstrated by approach 1 or 2 as listed in the registered PoA:

Approach 1:

The CPAs is up to 5 MW and is located in the areas indicated within the special underdeveloped zone of the host country by the relevant authority or is a technology is recommended by the host country DNA (MINAM) and approved by the Board to be additional in the host country.

Table 8: Fulfillment of criteria a) under Approach 1

Test a)	Yes	No
Is a technology recommended by the host country DNA (MINAM)		X

At the moment of submitting this CPA there are no technologies approved by the CDM Executive Board and then option b) of the approach 1 is evaluated.

Table 9: Fulfillment of criteria b) under Approach 1

Test b)	Yes	No
CPA capacity is below or equal to 5 MW.	X	
CPA is located in a geographical area that is classified as Poor or in Extreme Poverty by SISFOH ¹³	X	

Source: SISFOH (www.sisfoh.mef.gob.pe, Information on Peruvian Population Centers)

The location (San Miguel) and the 7 of the 8 surrounding communities (87.5%): Santa Elvira, Chambara Alta, Chambara Baja, San Gerónimo, Los Ángeles, El Carmen and San Martín; all located in a 5 Km radius from the project are classified as Poor in the information of the Household Targeting System and Policy for Organization and Operation (Sistema de Focalización de Hogares y Directiva de Organización y Funcionamiento – SISFOH)¹⁴ system.

Table 10: Condition of underdeveloped zone.

Indicator	Value	
District Name	Sayan	
District Code	150811	
Location	Condition	SISFOH Code
San Miguel	Poor	0001
Santa Elvira	Poor	0008
Chambara Alta	Poor	0007
Chambara Baja	Poor	0005

¹³ Information of the Household Targeting System and Policy for Organization and Operation (Sistema de Focalización de Hogares y Directiva de Organización y Funcionamiento – SISFOH)

¹⁴ Ministerial Resolution No 399-2004-PCM. Web Link. http://sisfoh.mef.gob.pe/descargas/RM_399_400_2004.pdf.

Download at August 2011. This resolution is the continuation of the Supreme Decree No 130-2004-EF that establishes criteria to improve the social expenditures.

San Gerónimo,	Poor	0139
Los Ángeles	Poor	0006
El Carmen	Poor	0003
Quipico	Not Poor	0014
San Martin	Poor	0015

Source: SISFOH (www.sisfoh.mef.gob.pe, Information on Peruvian Population Centers)

Since both eligibility criteria of option b) are fulfilled by the CPA, additionality can be demonstrated using approach 1 option b, and then it is not necessary to apply approach 2.

There is detailed information about socio economic parameters in Peruvian official sources (SISFOH is part of the Ministry of Economy and Finance and the data base is from 2009), therefore it can be concluded that CPA is developed in an underdeveloped area in Peru and then, additional.

Appendix 1. Contact information of CPA implementers

Organization name	CONSORCIO ELECTRICO VILLACURI SAC. – COELVISAC
Country	Peru
Address	Av. Víctor Andrés Belaunde N° 147, Towel 5, Of. 102. Lima 27
Telephone	(01) 440-2763
Fax	(01) 442-2150
E-mail	pmiranda@coelvisac.com.pe
Website	www.coelvisac.com.pe
Contact person	Miranda Ordoñez

Organization name	Carbonbay GmbH & Co. KG
Country	Germany
Address	Koreastrasse 7 20457 Hamburg
Telephone	+49 40 37004 7847
Fax	+49 40 37004 7274
E-mail	wolfgang.brueckner@carbonbay.com
Website	www.carbonbay.com
Contact person	Wolfgang Brueckner

Appendix 2. Affirmation regarding public funding

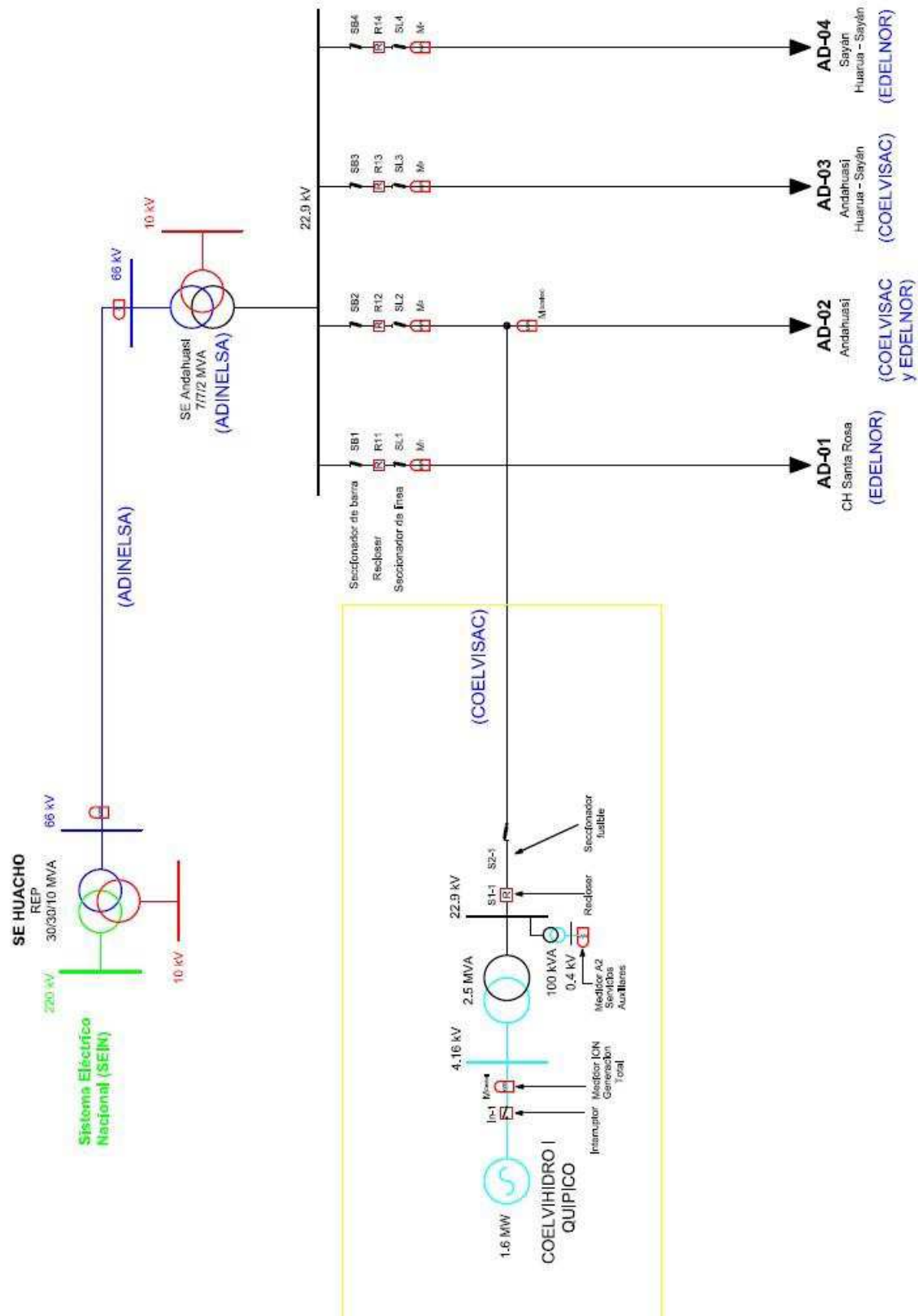
The CPA, as stated in the PoA, do not receive public funding.

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

Please refer to Section B.4 for details of ex-ante calculation of emission reductions

Appendix 4. Further background information on monitoring plan

Line diagram with the connection of the project to the grid is presented below:



Note: The line diagram is taken from original documentation, there are sentences in Spanish that can be translated as follows:

Sistema Eléctrico Nacional: National Electricity System. Interruptor: Switch.

Medidor ION Generación Total: Meter ION- total generation. Medidor A2 Servicios Auxiliares: Meter A2 for auxiliary services. Seccionador fusible: Fuse disconnector.

Seccionador de barra: Bus taps disconnectors

Appendix 5. Summary report of comments received from local stakeholders

Please refer to Section E.2 and E.3 for summary report of comments received from local stakeholders.

Appendix 6. Summary of post-registration changes

The version 08.1 of Component project activity design document form for small-scale CDM component project activities is used as a template for preparing this document. The type of Post-registration changes made in this document is 'permanent changes- Corrections' as per CDM project standard for project activities version 01.0 paragraph 233.

Under the section - Grid Emission factor of the PoA DD, to calculate the build margin emission factor, the project participants has chosen 'Option 1' which is calculating it ex ante based on the most recent information available on units already built for sample group at the time of CDM-PDD submission to the DOE for validation. However in the previous version of the CPA DD, the parameter ' $EF_{grid,BM,y}$ ' is mentioned erroneously under the section - Monitoring Parameters. This parameter has been now been indicated under the right section – D.6.2 in the CPA DD as to be measured ex-ante.

The frequency of the parameters $EG_{BL,y}$ / $EG_{PJ, facility, y}$ and $EG_{PJ,y}$ is changed to Hourly and Hourly respectively.

The parameters $EG_{m,y}$ and $EF_{EL,m,y}$ were also removed from the parameters to be monitored as they are used for calculation of Build margin emission factor which is a fixed ex-ante value. The information of the users to which generated electricity is supplied through the SEIN grid is also updated.

The revised CPA-DD is in accordance with the latest version of the CDM project standard for project activities.

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
09.0	31 May 2019	Revision to: <ul style="list-style-type: none"> • Ensure consistency with version 02.0 of the “CDM project standard for programmes of activities” (CDM-EB93-A07-STAN); • Make editorial improvements.
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;

<i>Version</i>	<i>Date</i>	<i>Description</i>
		<ul style="list-style-type: none">• 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;• 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		