SECTION A. Description of project activity

A.1. Purpose and general description of project activity

The Project "Potrero Hydropower Plant, Peru" (hereafter referred to as the "Project") is a run of river hydroelectric power plant located in the Province of San Marcos, Region of Cajamarca, in Peru (Host Country), and it is to be implemented by the company named "Empresa Electrica Agua Azul S.A.". The total installed capacity of the Project will be of 20.86 MW, with an expected net electricity generation of 147,215 MWh per year.

The Project aims to generate renewable electricity by using water from the Crisnejas River, who receives its water from two main river basins, Cajamarca River basin (111.9 km of length) and Condebamba River basin (92.7 of length). This energy will be supplied to the National Interconnected Electricity Grid (SEIN). The reduction of baseline emissions results from the displacement of electricity generated by power plants within the SEIN, which include fossil/fuel power plants emitting CO_2. The spatial extent of the Project boundary is the SEIN.

The project considers the construction of a substation located in the left margin of Crisnejas River, called Potrero substation (less than 200 meters away from Power House). The project will implement 2 horizontal Francis turbines for a nominal water flow maximum of 9 m^3 /s[1]. A transmission line of 60 kV and 4.97 kms length will be installed between the Potrero substation and the Aguas Calientes substation[2].

The Project CDM starting date is expected to be on 15/01/2013, when the access route contract will be signed. The construction of civil works is expected to start on 01/06/2013 and commercial operations in 01/06/2016[3]. The Project is expected to avoid the emission of 95,644 tons of carbon dioxide equivalent (tCO_2e) per year, which will amount to 669,508 tCO_2e for the first crediting period of 7 years, generating the equivalent amount of greenhouse gas (GHG) emission reductions (ERs). The GHG emissions of the proposed Project activity will be negligible; thus there will be no need to monitor them, and this will not be taken into account when calculating CERs.

The Project will have an expected minimum operating lifetime of 50 years. The proposed Project activity has all applicable permissions and authorizations required for its construction and operation, and it also complies with all the environmental requirements mandated by the Ministry of Energy and Mines (MINEM). The Project contributes to sustainable development by:

a) Creating a source of renewable energy in a sustainable way.
b) Employing local labor in the construction phase and later in the operation of the plant.
c) Expanding the national electricity grid's capability.

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[1] DGE (2012). Concession file submitted to the Ministry of Energy and Mines (MINEM) for the concession approval (page 95)

[2] DGE (2012). Concession file submitted to the Ministry of Energy and Mines (MINEM) for the concession approval (page 89)

[3] DGE (2012). Concession file submitted to the Ministry of Energy and Mines (MINEM) for the concession approval (pages 109, 110). The construction start date has been moved to June due to delays in the licence processes, and because the estimated construction time is around three years, the commercial operations start date will be affected accordingly.

d) Increasing the commercial activity of the community due to the fact that the construction and operation activities in the area will require services such as food, transportation, among others.
e) Helping Peru improve its hydrocarbon trade balance by reducing the consumption of oil derivates for electricity generation.
f) Helping the SEIN keep thermal power plants shut down and/or on stand-by for power generation, thus displacing expensive generation fired by heavy fuel, diesel, coal and natural gas, while reducing GHG emissions.
g) Contributing to local and national fiscal accounts through the payment of taxes
h) Committing to a social agenda as described in detail in section G of this document.
i) Improving the infrastructure in and around the Project area due the Project activities.

A.2. Location of project activity

Host party: Peru
Region of Cajamarca / Province of San Marcos

District of Eduardo Villanueva

The Project will be located in the north of Peru, in the district of Eduardo Villanueva, Province of San Marcos, Region of Cajamarca. The hydroelectric power plant's intake will be located in the town Aguas Calientes, at approximately 1,950 m.a.s.l., while the discharge will be located in the place called Potrero, at approximately 1,625 m.a.s.l[4]. The intake structure will be developed in the Crisnejas River. The Project is located at the following geographical coordinates:

Table 1: Project Coordinates[5]

Item	Expected Location	Expected Location (equivalent geographical coordinates)	Altitude
Water intake(1)	UTM WGS84 9 174 661 North 822 399 East	Longitude : -66.0793 Latitude : -7.4570	1,950 m.a.s.l.
Water discharge(1)	UTM WGS84 9 174 299 North 825 835 East	Longitude:- -66.0482 Latitude : -7.4600	1,625 m.a.s.l.
Power house(2)	UTM PSAD 56 9 174 283 North 824 238 East	Longitude: -66.0632 Latitude : -7.4598	1,810 m.a.s.l.
Substation (2)Potrero	UTM PSAD 56	Longitude: -66.0627 Latitude : -7.4603	1,825

[4] Hydrological study approval (Resolution No. 0302-2011-ANA-AAA-VI MARAÑON dated 29/12/2011 and pre-operative study (2012).

[5] The coordinates are approximations before construction and could be subject to move due to the uncertainty associated with the geological foundations variations will be non-significant). The pre-operative study of the project contains the coordinates of the power house and substations (Kiev Asociados, 2012), and the hydrological study approval has the coordinates of the water intake and devolution (Resolution No. 0302-2011-ANA-AAA-VI MARAÑON dated 29/12/2011).