SECTION A. General description of small-scale project activity

A.1 Title of the small-scale project activity:

Title: Nuevo Imperial Hydropower Plant
Version: 3
Date Completed: 09/07/2012

A.2. Description of the small-scale project activity:

The proposed project is a run-of-river hydropower plant located at the Nuevo Imperial Channel, which is fed by the Cañete River in the Nuevo Imperial District, Cañete Province, Lima Region, Peru. The hydropower plant has an installed capacity of 3.97 megawatts (MW) and is expected to produce approximately 28,288 MWh of electricity per year, which will be supplied to the Peruvian National Inter-Connected Electricity Grid (SEIN). The Project is estimated to generate 18,652 tonnes of certified emission reductions (CERs) annually during the first 7-year crediting period.

The Project will utilize the existing irrigation channel, Nuevo Imperial, which has an average water flow of 7.7 cubic meters per second (m^3/s). A water intake and a pressure shaft designed for a 7.5 m^3/s maximum flow will conduct water from the Nuevo Imperial channel to the power house. The penstock will have a length of 1,730 meters (m) and a net head of 61.5 m. The powerhouse will host one horizontal Francis turbine of 4.157 MW. The power capacity in the generator is 3.97 MW. The turbinated water will be discharged back to the Nuevo Imperial Channel.

The Project will supply electricity to the SEIN through a 1.39 kilometer (km) long 22.9 kilovolt (kV) transmission line, connecting to the existing CÑ6 - Lunahuana transmission line owned by Edecañete S.A. The electric meter will be installed in accordance with the requirements of the dispatch center, namely the Committee of Economic Operation of the Electric System (COES),[1] which stipulate that the meter should have metering accuracy of Class 0.2.

According to the results of the Environmental Impact Study, the Project is located in a farming area. Its environmental impacts are expected to be fairly low, and contained within the immediate surrounding area. The project activity will not disrupt irrigation. Moreover, the Project will not impact any archaeological or historical sites.

The Project will contribute to sustainable development by:

- enabling the SEIN to reserve thermal power plants only for stand-by power generation, thus displacing expensive generation fired by heavy fuel, diesel, coal and natural gas, while reducing GHG emissions;
- employing local labour in construction and plant management;
- supporting local development by providing direct investment;
- utilizing domestic and renewable resources, thus contributing to fuel diversification and resource independence for the Peruvian electricity sector;
- serving as a small demonstration project for clean renewable energy generation in the country;

[1] Technical Procedure of the Committee of Economic Operation of SINAC- PR – 20 Verification of Compliance with Requirements for being a member of COES SINAC, p. 20.

- contributing to Peru's fiscal accounts through payment of taxes
- helping Peru to improve its hydrocarbon trade balance through reduction of oil imports in electricity generation; and,
- securing the reliability of electrical supply to Cañete Province.[2]

A.3. Project participants:

Name of Party involved (*) ((host) indicates a host Party):	Private and/or public entity(ies) project participants (*)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
Republic of Peru (host)	Hidrocañete S.A.	No
Spain	Endesa Carbono S.L.	No
(*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.		
Note: *When the PDD is filled in support of a proposed new methodology (forms CDM-NBM and CDM-NMM),* at least the host Party (ies) and any known project participants (e.g. those proposing a new methodology) shall be identified.		

A.4. Technical description of the small-scale project activity:

A.4.1. Location of the small-scale project activity:

A.4.1.1. Host Party(ies):

Republic of Peru

A.4.1.2. Region/State/Province etc.:

Nuevo Imperial District, Cañete Province, Lima Region

A.4.1.3. City/Town/Community etc:

The Project is located between the local towns of La Florida and Nuevo Imperial.

A.4.1.4. Details of physical location, including information allowing the unique identification of this small-scale project activity :

The Project is located in the Nuevo Imperial District, Cañete Province, Lima Region, between the towns of La Florida and Nuevo Imperial. Access to the Project is at the 148 km mark from the capital city of Lima, on the Panamericana Sur road to the San Vicente de Cañete Region. From this point, a paved road along to the basin of Cañete River is taken to the east, heading toward Lunahuana District. This road

[2] The Project has invested in a black start system. This allows the Project to supply energy to the local community even when the electricity coming from the SEIN is interrupted. Key structures such as the hospital, the police station, fire station, etc. would have electricity even during national energy emergencies. A black start system means that the power plant can start operations even when electricity from SEIN is interrupted. A hydro power plant need energy to first turn on the auxiliary equipment to then start generating electricity. With the black start system, the project has a small electricity engine capable to feed energy to the auxiliary equipment for starting generating electricity to the grid