

NEFCO Carbon Fund Project Profile: Ban Coc 18 MW Hydropower Project, Vietnam

Project title: Ban Coc 18 MW Hydropower Project

Country: Vietnam

Project type: Renewable Energy

Emission reductions: estimated 280,070 tCO₂ equivalent by 2017

Project description: The project activity is to build a new 3x6 MW (total of 18 MW) hydro electricity power plant. The project is expected to generate 75 GWh/annum of electricity. The project reduces greenhouse gas emissions by displacing fossil fuel-based electricity from the grid with zero-emission energy from renewable energy. The electricity generated will be sold to the Vietnamese National Power Grid. The project has been developed as a Clean Development Mechanism (CDM) project under the Kyoto Protocol. It will generate Certified Emission Reductions (CERs) that will be purchased by the NEFCO Carbon Fund (NeCF) on behalf of its investors.



Project Activity

The Ban Coc 18 MW hydropower project is located in Chau Kim commune, Que Phong district, Nghe An province, northern Vietnam.

Prior to the implementation of the project activity, no power generation existed at the project location. Electricity supplied in Vietnam is generated mainly from fossil fuel sources and is solely distributed to consumers via the unique national electricity grid.

The project's purpose is to generate hydroelectricity from a clean and renewable source (hydropower of the Nam Giai stream). The energy will be supplied to the national grid via a Power Purchase Agreement (PPA) signed with the Electricity Corporation of Vietnam (EVN). The project's installed capacity and estimated annual gross power generation is 18 MW and 75,470 MWh, respectively. The net electricity generated (with an estimated annual volume of 74,715 MWh) will be supplied to the national grid via a newly constructed 35kV transmission line which connects between Ban Coc hydropower plant and the 35/110kV Trung Banh transformer station.

Technology

The project activity involves the construction of a dam, intakes, tunnels, pressurized wells, penstocks, power house with 3 units (each unit has a turbine and a power generator) and discharge channels. The main equipment utilized in Ban Coc Hydropower plant is imported. The equipment supplier, China Equipment and Machine Import-Export Company is also providing technical support such as training courses for the operation of the hydropower plant.

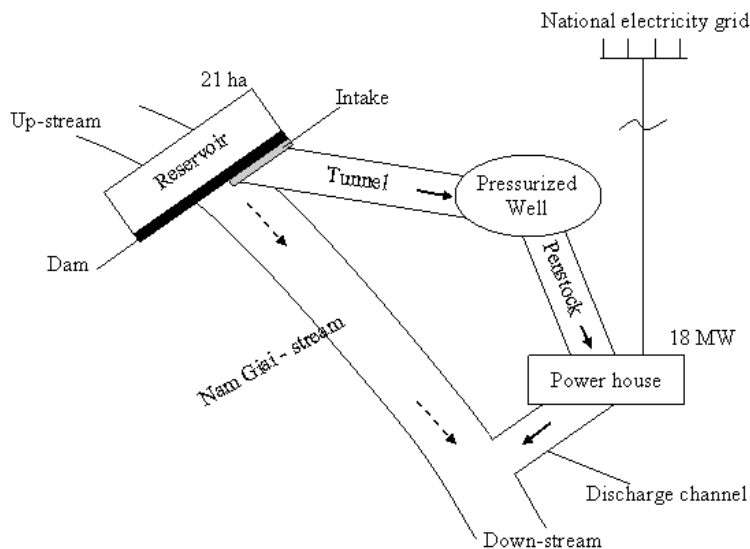


Figure 1 Picture from the up-stream dam and a schematic layout of the project.

Emission Reductions

By displacing fossil fuel-based electricity generation, the project reduces greenhouse gas emissions by around 40,000 tonnes of carbon dioxide equivalent (tCO₂e) per year, or by 280,000 tonnes over its seven-year crediting period (2010-2017). The NeCF has agreed to buy the CERs which the NeCF investors may use for compliance under the Kyoto Protocol or the EU Emissions Trading Scheme.

Project Benefits

In recent years, Vietnam, especially the northern part of the Central region of Vietnam, has suffered electricity shortages as a consequence of a rapidly increasing demand and insufficient supply, with negative impacts on economic growth as well as daily lives of people. This clean energy project will contribute towards meeting the demand gap.

In addition, the project will contribute positively on the economic well-being of the Nghe An province by facilitating its industrialisation process and supporting economic development of the local village. The majority of local residents living in the project area are from ethnic minorities which usually live in less favourable living conditions than the majority population in Vietnam.

Further Information

For additional information, please visit <http://www.nefco.org/cff> or email us at carbonfinance@nefc.fi.

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