

NEFCO Carbon Fund Project Profile: Doc Cay 15 MW Hydropower Project, Vietnam

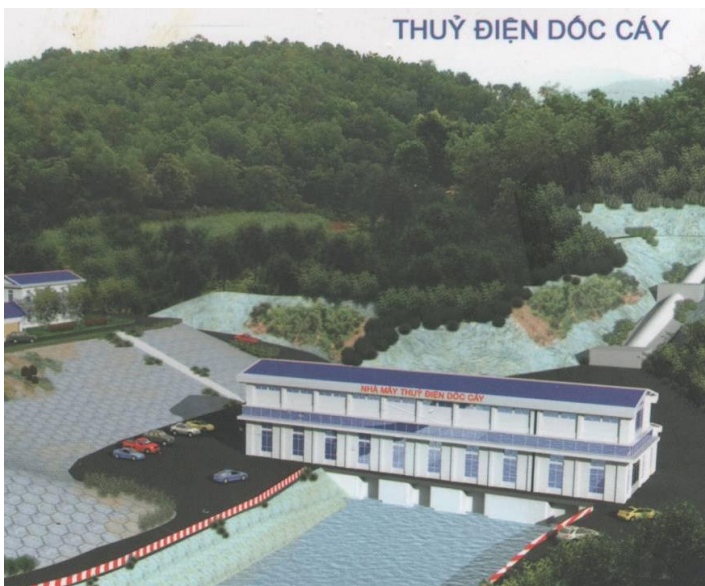
Project title: Doc Cay 15 MW Hydropower Project

Country: Vietnam

Project type: Renewable Energy

Emission reductions: estimated 232,603 tCO₂ equivalent by 2017

Project description: The project activity is to build a new 3x5 MW (total of 15 MW) hydro electricity power plant. The project is expected to generate 63 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 Doc Cay 15 MW hydropower project is located in Luong Son Commune, Thuong Xuan District, Thanh Hoa Province, near the north-central coast of Vietnam.

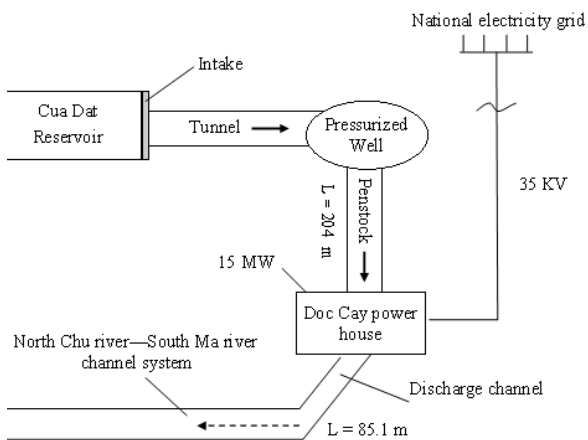
Prior to the implementation of the project activity, there was an irrigation reservoir but no power generation existed at the project location. Electricity supplied in Vietnam is generated mainly from fossil fuel sources and is solely distributed to consumers via the unique national electricity grid.

The project's purpose is to generate electricity from a clean and renewable source (hydropower of the Cua Dat irrigation reservoir). The energy will be supplied to the national grid via a Power Purchase Agreement (PPA) to be signed with the Electricity

Corporation of Vietnam (EVN). The project's installed capacity and estimated annual gross power generation are 15 MW and 62,680 MWh, respectively. The net electricity generated (with an estimated annual volume of 62,053 MWh) will be supplied to the national grid via a newly constructed 35kV transmission line which connects between Doc Cay hydropower plant and the 35/110 kV Tho Xuan-Thanh Hoa transformer station.

Technology

The project activity involves the construction of a short tunnel from the existing reservoir, pressurized well, penstock, power house with 3 units (each unit has a turbine and a power generator) and discharge channels. The main equipment utilized in the plant is imported. The principal equipment supplier is Guizhou CVC from China and the automation comes from Siemens.



Construction site, project offices and a schematic layout of the project.

Emission Reductions

By displacing fossil fuel-based electricity generation, the project reduces greenhouse gas emissions by around 33,000 tonnes of carbon dioxide equivalent (tCO₂e) per year, or by 233,000 tonnes over its seven-year crediting period (2011-2017). 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 Thanh Hoa Province by facilitating its industrialisation process and supporting economic development. The infrastructure of the Luong Son Commune, where minority ethnic groups are also living, will be improved by new road, improved electricity service and new communication and clean water treatment systems.

Further Information

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

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