

SECTION A. General description of project activity

A.1. Title of the project activity:

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Project title: Renkeng Hydropower Project, Longchuan County, Guangdong Province

PDD version: 07

Completion date: 20/07/2009

A.2. Description of the project activity:

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Renkeng Hydropower Project, Longchuan county, Guangdong Province (hereinafter "the Project") is designed to construct a 25 MW run-of-river hydropower plant located on mainstream of Dongjiang River in Huangshi Township of Longchuan County, Heyuan City, Guangdong Province, P. R. China. The Project mainly consists of a detention weir to create a run-of-river reservoir with power density at 37.88 W/m^2 , a 25 MW powerhouse and one set of 110 kV transmission lines. It is expected to generate an annual output of 69,910 MWh and in turn provide on-grid power supply of 67,826 MWh to be connected to South China Power Grid (SCPG).

The main purpose of the project is to generate electricity by using water resources without causing negative impact on the environment. The construction of the project could meet the ever-increasing electricity demand and relieve the electricity generation pressure of the SCPG. It's estimated that the Project will achieve 57,204 tCO₂e GHGs emission reductions per annum by avoiding operation of existing thermal power plant and further capacity expansion of fossil fuel-based generation by the SCPG in the absence of the project activity. The project is considered as a renewable energy project under the CDM Modalities.

The Project provides a combination of positive social, economic and environmental development benefits as below:

- To supply reliable electricity to local area to ease the pressure of power shortages;
- To offer job opportunities: 1066 positions at most will be created during the construction period and 35 permanent employees will be needed during operation and maintenance period;
- To spur the development of local agriculture and other potential industrial sectors;
- To alleviate poverty and further to improve living standards in local poverty-hit region; and
- To eliminate other air pollutants to contribute to local environment protection.

These social, economic and environmental benefits runs under the framework of the Eleventh Five-year Plan of Guangdong Province and emphasis on the important sustainable benefits of this proposed CDM project activity to the country and region.