PROJECT DESIGN DOCUMENT FORM (CDM PDD) - Version 03.1.



CDM – Executive Board

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SECTION A. General description of project activity

A.1 Title of the project activity:

Guangdong Liucheng 25.5MW Hydro Power Project

The version 6.0

PDD was completed on 22/07/2009

A.2. Description of the <u>project activity</u>:

The Guangdong Liucheng 25.5MW Hydro Power Project (hereafter referred as "the proposed project") involves the construction and operation of a hydro power station (with a new reservoir) which is developed and owned by Shenzhen City Fuyuan Industry Group Co., Ltd. The project is located on the upstream of Dongjiang River which is in Xiaba Village, Liucheng Town, Dongyuan County, Heyuan City, Guangdong Province, China.

Preliminary construction work such as provisions for access to power and water, and land preparation for construction of the plant was started on 28th, April 2006. The first set will be pre-operated on Aug. 2008. The whole construction of the plant is expected to complete in July 2009.

The total installed capacity of the proposed project is 25.5MW(3*8.5MW), the surface area of the reservoir at full level is 31,740m² thus the power density of the project is 803.4W/m². On the average, the project activity is expected to operate 3,343 hours per year and the net grid-connected electricity generation of 77,760MWh. The power generated will be transmitted to the Heyuan City Grid via the 110kV Lankou transformer substation, then to the Guangdong Provincial Grid, and finally to the China Southern power Grid(CSPG).

Electricity generated by the proposed project will displace part of the electricity generated by China Southern Power Grid which is dominated by fossil fuel-fired power plants, and thus achieve greenhouse gas (GHG) emission reductions. The estimated annual GHG emission reductions are 67,745 tCO₂e.

As a renewable energy (hydro power) project, the proposed project will contribute to the local sustainable development through following aspects:

- To displace part of the electricity from coal-fired power plants, and thus will avoid environmental pollution caused by coal burning.
- To make good use of the local water resource to solve the difficulties of power lack and voltages unstability, improve the life quality of local people and reduce poverty.
- To promote the change of local energy structure of bavin, coal and coal-fired power.
- To create new job opportunities for the local people: 800 temporary job opportunities will be available during the construction period and 50 permanent jobs during the operation time.

A.3. Project participants:

Name of Party involved ((host) indicates a host Party)	Private and/or public entity(ies) project participants (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
P.R. China(host)	Shenzhen City Fuyuan Industry (Group) Co., Ltd.	No
Netherland	Renaissance Carbon Investment Ltd.	No