

CDM – Executive Board

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

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Manglad Small Hydroelectric Project

Version 4

Date: 19th December 2009
A.2. Description of the small-scale project activity:

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The Manglad Hydroelectric Project (MHEP) is a 4.5 MW run-of-river hydroelectric project proposed for development in the Shimla district in the state of Himachal Pradesh, India. The Project will utilize the waters of the Manglad Khad, a tributary of the Satluj River, to generate approximately 24.61 GWh (net) of electricity per annum. The project is being developed by Shree Bhavani Power Projects Private Limited (SBPPPL). MHEP was allotted to SBPPPL by the Himachal Pradesh Government Energy Development Agency (Himurja) under the policy for private sector participation in the implementation of power projects.

The electricity generated by the project will be exported to the northern regional grid via the Northern Regional Load Dispatch Centre (NRLDC). The northern grid comprises Delhi, Haryana, Punjab, Chandigarh, Rajasthan, Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Uttar Pradesh states.

Contribution to Sustainable Development

The project will contribute strongly to the environmental, social and economic well being of the region. A Local Area Development Authority (LADA) has been formed by the Himachal Pradesh Government to oversee the environmental management of the project and the implementation of the Environmental Management and Local Area Development Plan (EMLAD). The activities of the LADA will be financed by setting aside 1.0 % of the total project cost.

The MHEP will contribute strongly to the sustainable development of the region and surrounding areas in the following ways:

- The electricity to be generated will reduce the carbon intensity of the northern regional grid by reducing the emission of greenhouse gases on a per MWh basis across the entire system.
- The project will not compromise access to the river resources for downstream users as provisions have been made for at least 15 % of the minimum inflow observed in the lean season (approximately 0.0735 cumecs) to be released as sacrificial discharge downstream of the diversion structure throughout the year¹.
- The project will result in minimal disruption to the local environment during and after construction as it is a run-of-river hydro scheme that does not require the formation of a reservoir.
- The project will result in a reduction in air borne pollutants, such as oxides of nitrogen, oxides of sulphur, carbon monoxide and particulates, through a reduction in the combustion of fossil fuels.

¹ Detailed Project Report and Implementation Agreement with the Himachal Pradesh Government signed on 24th April 2007

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- The project will generate local employment, on a temporary basis during the construction phase, with more permanent on-going employment during the operational phase.
- There are no adverse effects on aquatic wildlife or fish health expected. There is no potential loss in aquatic production such as fish and other useful animals and plants on site, up and down stream of the project site. The project activity is not expected to impact on native fish migration patterns, as no significant changes in the velocity of water currents are anticipated and hence no changes in the ambient conditions for aquatic fauna are expected to occur.
- Local villages partially depend on firewood for their daily energy needs, which can lead to adverse ecological impacts, such as forest degradation, soil erosion and reduction in soil fertility. Increased availability and reliability of power supply from this project to the villages will reduce the need for firewood.
- Local roads being constructed as part of this project will improve access for local villages transporting apples (local cash crop) from presently inaccessible apple orchards to main roads.

The project is consistent with the future plans of the Ministry of New and Renewable Energy (MNRE) of the Government of India to establish 10,000 MW of Renewable Energy projects by 2012². The Project is also being developed in line with India's National Electricity Policy³. Section 5.2.5 of the policy outlines the Government's emphasis on the full development of feasible hydro potential in the country. In addition the Ministry of Power has outlined several policy measures to accelerate the capacity addition from hydroelectric projects⁴.

A.3. Project participants:

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Table A.1 Parties involved in the project

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 participants(Yes/No)
Government of India (host)	Shree Bhavani Power Projects Private Limited.	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.

A.4. Technical description of the small-scale project activity:**A.4.1. Location of the small-scale project activity:**

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A.4.1.1. Host Party(ies):

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India

² <http://www.teriin.org/opet/articles/art10.htm>

³ http://powermin.nic.in/indian_electricity_scenario/national_electricity_policy.htm

⁴ http://powermin.nic.in/JSP_SERVLETS/internal.jsp