Response to the Request for Review of CDM project

Date: 22/12/2008

Project Name: Longwangtan 15MW Hydro Power Project in Guizhou Province China

Registration Reference Number: 2204

Project Owner: Longyuan Hydro Power Development in Congjiang County Co.Ltd.

Dear Sirs or Madams,

Please find below the response to the request for review formulated for the CDM project with the registration number 2204. In case you have any further inquiries please contact the focal point in the MoC as we kindly assists you.

Yours sincerely,

YAO Xiaohong
Board Chairman

22/12/2008

Issue 1.
Further clarification is required on how the DOE has validated: a) the input values for the investment analysis as per EB 38 paragraph 54(c) guidance; and b) the suitability of the 10% benchmark (1995) when assessing the additionality with investment decision made in 2006.

Response by PPs:

Firstly we would like to further clarify the input values for the investment analysis. According to the EB38 paragraph 54(c) guidance;
54. The Board clarified that in cases where project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities, DOEs are required to ensure that:
(c) On the basis of its specific local and sectoral expertise, confirmation is provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision.

All the input parameters used in the financial analysis except for the electricity tariff are taken from the Preliminary Design Report (PDR) developed by Guizhou Qiandongnan Prefecture Hydro Power Reconnaissance & Design Institute in June 2004 and approved by Guizhou Province Qiandongnan State Development and Reform Committee on 18 October 2004. A PDR in China is an updated version of FSR and required to be completed by the accredited third independent party and approved by local government. Therefore, the values can be regarded accurate and credible.

The electricity tariff of the project is taken from “Notification for the electricity price of small hydropower projects” issued by Guizhou Province Price Bureau in 11 April 2005. Given that the date of the “Notification for the electricity price of small hydropower projects” is later than the date of completing the PDR and more approach the project starting date compared with the PDR, so this official tariff is more accurate to reflect the real economic situation prior to the start of the project activity.

The relevant assumptions, which are shown in table 1 of section B.5 of the PDD submitted for registration are as follows:

Table 1 Main parameters for the calculation of financial indicators

Parameter	Unit	Project data	Data source
Estimated annual output	**GWh**	51.31	PDR
Total investment	**Million RMB**	82.01	PDR

Installed capacity	**MW**	15	PDR
Operation and maintenance cost	**Million RMB**	0.87	PDR
Project lifetime	**Years**	20	PDR
Expected bus-bar tariff (including VAT)	**RMB/kWh**	0.218	Document from local government
Rate of VAT		6%	PDR
Income tax		33%	PDR
Sales additional tax		0.36%	PDR
Period of depreciation	**Years**	20	PDR
Rate of scrap value		0%	PDR

The IRR with and without the income from the sale of CERs is listed in table 2 below. Without the income from CERs, the IRR of the proposed project is 8.20%, which is much lower than the benchmark IRR set in SL 16-95, so the proposed project is financially unacceptable. With the income from CERs, the IRR is increased to 13.01%, which is feasible and attractive to the investors.

Table2 Comparison of financial indicators with and without income from CERs

Item	Unit	Without the income from CERs	Benchmark rate	With the income from CERS
IRR of total investment	%	8.20	10	13.01

Furthermore the cross-checking is implemented once again that:

- the investment per kW is about 5467 RMB/kW, so the main indicators is deemed in a reasonable range of Chinese small hydro power projects[1];
- The tariff is quoted from official source at the time of investment decision explained above;
- The annual operating hours, 4001 hour and the installed capacity, 15MW are determined based on the hydrological data from year 1963 to 2001, which are obtained from the local Bureau of Meteorology; the water flux of the Shuangjiang River has been relatively stable in the last 39 years. Thus the value of 51,309MWh has been calculated considering all kinds of different aspects and parameters.
- The O&M cost is more accurate and conservative than that one calculated based on <<Interim Provision of the Financial Evaluation of the Hydro Electric Power Project>>, issued by ministry of electricity power and water resource on 14/06/1994.

Thus the input values from the PDR are valid and applicable at the time of investment decision and the demonstration of the investment analysis in the PDD is in compliance with the guidance of EB38 paragraph 54(c).

[1]http://www.powerfoo.com/news/sdkx/2008/1214/08121422222772IA06415J7F17CIA373.html

Secondly we also would like to further clarify the suitability of the 10% benchmark (1995) when assessing the additionality with investment decision made in 2005.
The 10% benchmark of the proposed Project is based on the "Economic evaluation code for small hydropower projects (Document No. SL16-95)". This code was issued by the Ministry of Water Resources of China (MWR) and became effective on 01/07/1995. Section 1.2 of SL16-95 states that it is applicable to all hydropower projects with an installed capacity below 25MW and to hydropower projects with an installed capacity below 50MW located in rural regions[2]. The installed capacity of the proposed Project is 15MW. SL16-95 is thus applicable to the proposed Project.

On 09/09/2006, The MWR announced that this regulation was still effective[3]. Furthermore, no new regulation has taken over the effectiveness of this code since then. To double-check this information, a call was placed to the MWR on 22/12/2008[4]. The MWR confirmed during this call that this code and its benchmark are still in effect. Therefore, 10% benchmark was applicable at the time of the decision making in 2005 (and still remains in effect today)..

Since 1995, hydropower design institutes in China have widely applied this code and the 10% benchmark when developing Feasibility Study Reports (FSRs) and Preliminary Design Reports (PDRs) for small-scale hydropower projects. The 10% benchmark given in this code is the most specific benchmark for small hydropower projects and is representing the common Chinese practice for investment decision processes[5]. The 10% benchmark has also been consistently applied by the shareholders of the proposed Project in assessing other similar investment (i.e. small hydropower project). This can also be seen from similar small hydropower project in china, such as Hunan Yangmingshan Three Level Hydropower Project (2145), Yunnan Lincang Zhenai Hydropower Project (1994).

Therefore, we believe that the use of a 10% benchmark for assessing the additionality of the investment decision made in 2005 is appropriate.

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[2]See http://www.cws.net.cn/guifan/bz%5CSL16-95. The Code applies to small hydropower projects below 25MW and to hydropower projects below 50MW in rural areas.

[3] See <Notification of Current Effective Water Conservancy Technical Standards > by The Ministry of Water Resource of PRC, (http://www.mwr.gov.cn/tzgg/qt/20060926000000479251.aspx)

[4] +8610-63202593

[5] The Research and Design Institute of No.14 China Hydro Engineering Bureau and the National Research Institute for Rural Electrification, accredited by the Chinese Government, both claim that SL 16-95 is still used by design institutes when assessing the financial feasibility of small hydropower projects.