

# CDM Executive Board

DNV

11 May 2007

Ref. CRM/UNFCCC/0993

# Response to the request for review for 0993 Hainan Province Diaoluohe Hydropower Project

Dear Sir, Madam,

We would like to clarify each of the three issues raised in the request for review for our small scale hydro project reference 0993.

# The first issue raised in the request for review is:

A benchmark rate of 10% is assumed, however this is derived from a 12 year old study. The investment analysis to demonstrate additionality is not satisfactorily, because the source used for benchmark IRR is too old, as of 1995 ("Economic Evaluation Code for Small Hydropower Projects", issued by Ministry of Water Resources in 1995, Document No.SL16-95).

# Response to the first issue:

The chosen benchmark of this project is from the "Economic evaluation code for small hydropower projects (SL 16-95)", issued by Ministry of Water Resources of China. This benchmark of total investment financial internal rate of return (IRR) is widely accepted and widely applied as the indicator for investors, commercial banks and other stakeholders for the small hydropower sector in China and there is no alternative benchmark. A publicly available resource from the Chinese Hydraulic Engineering Society (CHES) confirms that this benchmark is still in effect<sup>1</sup>. So the project developer used this benchmark in its Preliminary Engineering Design Report and got the approval of this project from local government in 2005. When this project was being registered

<sup>&</sup>lt;sup>1</sup> http://www.ches.org.cn/jishubiaozhun/001.asp

as a CDM project, this benchmark was in effect, and still remains so. Therefore, we used this benchmark, as have other small hydro projects already registered and/or currently requesting registration.

### The second issue raised in the request for review is:

An IRR without CDM revenues of 7.9% is presented without sensitivity analysis. This IRR rises to 10.2% with CDM revenues. No sensitivity analyses were carried out.

#### Response to the second issue:

A sensitivity analysis was carried out as part of the project assessment. However, it is our understanding that the simplified modalities for small-scale projects do not require the use of the full "Tool for the demonstration and assessment of additionality", and therefore do not require a full sensitivity analysis to be presented. According to the Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities, the additionality of a small-scale CDM project is demonstrated by one of three barriers. The project proponents have chosen to use the investment barrier as the main barrier for this project without presenting the sensitivity analysis in the PDD.

However, we are happy to provide the sensitivity analysis, by using total investment, operation and maintenance costs, and income of the proposed project without CDM to test if the project were economically attractive. The results of the project sensitivity analysis is summarised in the graph below. The graph shows very clearly that within +/-10% changes of the three elements for sensitive analysis, the IRR remains lower than 10% without CDM income. This sensitive analysis, thus, supports the conclusion that this project is additional.

We would like the EB to clarify if a sensitivity analysis is required for small scale projects when choosing investment analysis to show additionality. Such clarification and clear guidance would be helpful for future projects.



#### The final issue raised in the request for review is:

The PP claims that it was not possible to source financing for the project without a CDM investor. The financial barrier analysis claims that the project having the installed capacity smaller than 50MW could not secure loans from the local commercial banks. However no evidence has been presented to support this claim. The validation report claims that the DOE has validated one document. However, that document represents only one bank (China Construction Bank in Lingshui County), not necessarily all commercial banks.

#### Response to the final issue:

The project developer requested loans for the financing of the proposed project from several local commercial banks, but all refused the request because of the Chinese macro-control for limiting small scale power generation projects, the risk of small hydropower project, and the low IRR. The details have been provided to the DOE.

The China Construction Bank in Lingshui County said it would not provide a commercial loan to small hydropower projects due to the Chinese macro-control for limiting small scale power generation projects. Written evidence of this was presented to the DNV during the validation process.

Other commercial banks in Lingshui County, including the Industrial and Commercial Bank of China and the Agricultural Bank of China, also refused to provide loans to

small hydropower projects for the same reasons. During telephone interviews with this and other banks carried out by DNV during the validation process, DNV could confirm that they did not want to give loans to SHP because the associated risks, the low IRR being obtain by SHP and the Chinese macro-control for limiting small scale energy projects; however, the banks did not provide written documentation which could be used as evidence (as there was no obligation for them to do so).

### Conclusion

In conclusion, we believe that sufficient evidence has been provided that the Hainan Province Diaoluohe Hydropower Project (0993) is additional. It is our sincere hope that the EB will accept these clarifications and explanations, and will approve this project for registration without further delay.