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Request for Review

Dear Sirs,

Please find below the response to the review formulated for the CDM project with the title "*Guangnan Shangshilong Hydro Project*" with the registration number 1995. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Cuiyun Zhang
Carbon Management Service

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Response to the CDM Executive Board

Issue 1

"The DOE is requested to clarify how it has validated the investment analysis, in particular the appropriateness of the 10% benchmark (1995) while assessing the additionality of an investment decision that was made in 2007"

Response from the Project Participant

The 10% benchmark is given in the "Economic evaluation code for small hydropower projects (SL16-95)". This code was developed by the Ministry of Water Resources of the People's Republic of China (MWR) and became effective on 01/07/1995. Section 1.2 of SL16-95 states that this code applies to small hydropower projects with an installed capacity below 50MW[1]. The installed capacity of the proposed project activity is 20MW. The code is thus applicable to the proposed project.

On 09/09/2006, the MWR announced that this regulation was still effective[2]. No new regulation has taken over the effectiveness of this code since then. A first call was placed to the MWR on 28/05/2007[3] (same year as the investment decision for the proposed project) and a second one on 26/11/2008[4] to double-check this information. The MWR confirmed during both calls that this code and its benchmark are still in effect. This shows that the 10% benchmark was applicable at the time of the decision making in 2007 (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 represents common practice for Chinese investment decision processes[5]. It has also been consistently applied by the shareholders of the proposed project in assessing other small hydropower projects[6]. This shows that it is reasonable to assume that a lower benchmark would not be applicable to the proposed project.

Therefore, we believe that the use of a 10% benchmark for assessing the additionality of the investment decision made in 2007 is appropriate.

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[1] 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.
[2] 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)
[3] As part of the answer to the Request for Review of project 996 - Zhoubai Hydroelectric Project (http://cdm.unfccc.int/Projects/DB/DNV-CUK1173700712.12/history)
[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, and hence the 10% benchmark, is still used by institutes when assessing the financial feasibility of small hydropower projects. See the attachment.
[6] See Feasibility Studies of Hunan Shuangpai County Hejiadong Hydro Project (8MW) and Hunan Shuangpai County Yangmingshan Hydro Project (22MW).

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Response by TÜV SÜD

The applied benchmark "Economic evaluation code for small hydropower projects (SL16-95)" is still applicable today, and so it was at the time of the investment decision. It applies to hydropower installations with a capacity below 50MW in rural areas, therefore is applicable to the proposed project activity with a capacity of 20MW as well.

SL16-95 was issued by the Ministry of Water Resources of the People's Republic of China (MWR). Both in 2007 and 2008 the validity of the code has been re-confirmed, as could be evidenced by:

1) The answer to the Request for Review of project 996 - Zhoubai Hydroelectric Project, dated 04/06/2007.
2) The statements of 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, which clarified that SL 16-95 is still used by the institutes when assessing the financial feasibility of small hydropower projects, dated 26/11/2008 and 01/12/2008.

Further TÜV SÜD has observed that SL16-95, and hence the 10% benchmark, is still widely used in recent feasibility studies of hydropower projects in China.

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Issue 2

"The DOE should clarify how it has validated the common practice analysis, in particular, the capacity range of 15~50 MW, as the project activity consists of two 10 MW turbines."

Response from the Project Participant

CDM regulations for small scale SSC project activities, defining hydropower projects below 15MW as small scale, are based on the total installed capacity of all units of the hydropower station and not the capacity of the individual units[7]. Chinese regulations and policies also define hydropower projects based on the total installed capacity and not on the capacity of individual units. The 15-50 MW capacity range was chosen based on Chinese technical and economical classification as well as available data.

1) **Clarification of the 50MW upper limit:**
   a. The classification based on the installed capacity of hydropower projects in China done by the Chinese government is as follows[8].
      - Large scale hydropower stations include hydropower stations with an installed capacity larger than 300 MW (≥300MW);
      - Medium scale hydropower stations include hydropower stations with an installed capacity between 50 MW and 300 MW (≥50 MW & □300 MW);
      - **Small scale hydropower stations include hydropower stations with an installed capacity between 50 MW and 0.5 MW (≥0.5 MW&□50 MW).**

   b. The "Standard for Classification and Flood Control of Water Resources and Hydroelectric Project (SL252-2000)", issued by the Ministry of Water Resources of the People's Republic of China; and The "Classification & design safety standard of hydropower projects (DL5180-2003)" issued by the State Economic and Trade Commission of People's Republic of China are consistent with the above classification and **Projects below 50MW are deemed to be small scale hydropower projects**. The "Economic evaluation code for small hydropower projects (SL16-95)" issued by the Ministry of Water Resources of the People's Republic of China also applies to hydropower projects as having an installed capacity lower than 50MW.

2) **Clarification of the 15MW lower limit:**
   Relevant documentation containing information about hydropower stations of all scales in Yunnan province ("Yearbooks of China Water Resources" published by China Water Power Press, "Almanacs of China's Water Power" published by China Electrical Power Press, "China Electric Power Yearbooks" published by China Electrical Power Press and "Yunnan Statistical Yearbooks" published by China Statistics Bureau) do not mention any hydropower projects below 15 MW operational in Yunnan Province. These projects were thus excluded from the analysis in accordance with the guidance on common practice analysis in the Additionality Tool, which states that "If necessary data/information of some similar projects are not accessible for PPs to conduct this analysis, such projects can be excluded from this analysis".

[7] See paragraph 6 (c) of decision 17/CP.7
[8] See Almanac of China's Water Power.

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Response by TÜV SÜD

It does not appear to be appropriate to compare the capacity range of individual parts of the project to other projects consisting of similar parts. Rather the total capacity of the installation should be compared.

Clarification of the 50MW upper limit:

There are various references that are classifying hydropower projects below 50MW as small scale projects in China:

- The Almanac of China's Waterpower in 2006, published in Dec. 2007, China Electrical Power Press.
- Standard for Classification and Flood Control of Water Resources and Hydroelectric Project (SL252-2000)", issued by Ministry of Water Resources of the People's Republic of China, published on 13rd July, 2000
- The Classification & design safety standard of hydropower projects (DL5180-2003) issued by State Economic and Trade Commission of People's Republic of China, implemented from June 2006.
- The Economic evaluation code for small hydropower projects (SL16-95) issued by the Ministry of Water Resources of the People's Republic of China, implemented from 1st, July 1995

The fact that consistently the same rage is referred to does sufficiently justify the applicability of the same range in the CDM context.

Clarification of the 15MW lower limit:

TÜV SÜD can confirm that relevant statistics on country and provincial level do not comprise the necessary information about hydropower stations below 15MW: It is therefore justified to exclude the size range below 15MW from the analysis, in compliance with the additionality tool, where is stated: "If necessary data/information of some similar projects are not accessible for PPs to conduct this analysis, such projects can be excluded from this analysis."