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Our / Your Reference	Contact	Direct Dial	Date
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Request for Review
"China Tuanjie Small Rundle Hydropower Project" (1772)

Dear Sir/Madam,

Please find below the response of the project participant (Qiyang Haojie Hydroelectric Co., Ltd.) and the TÜV NORD JI/CDM Certification Program to the request for review for the above mentioned project no. 1772.

If you have any questions do not hesitate to contact us.

Yours sincerely,

TÜV NORD JI/CDM Certification Program

Rainer Winter

Request for Review (1-1, 1-2, 1-3)	
Issue raised by EB Members / DNA	***The DOE is requested to clarify how it has validated that the input values (tariff and O&M) and the assumption of fixed amounts over the 20-year period of the IRR calculation are appropriate.***
Response of project participant	The data used in the IRR calculation spreadsheet are derived from the Supplementary Feasibility Study Report. The report is completed by Hunan Yongzhou Hydropower and Conservancy Design Institute. The supplementary FSR was approved by the Yongzhou Development and Development Committee on June 24, 2005. In the supplementary FSR the IRR without CERs revenues is lower than the benchmark and the incentive of CDM makes the project IRR higher than the benchmark. The project construction was permitted on October 8, 2005, thus the timeline between the supplementary FSR and the actual starting date of the project is within 1 year. Therefore, the data are feasible and valid. The requirement in the guidance provided in EB 38 paragraph 54 is fully met. The project compasses three cascades with the total capacity of 6.6 MW (1MW+4MW+1.6MW). The total investment in the supplementary FSR is 33.8483 Million RMB yuan with the investment per MW is 5638.15RMB yuan/MW. The total investment is determined by the Hunan Yongzhou Hydropower and Conservancy Design Institute based on the characteristics of the project, which is reasonable in the small scare hydropower projects. The electricity tariff used for IRR calculation in the Supplementary FSR is 0.25RMB yuan/kwh, which is in line with Notice of the Hunan Qiyang Price Bureau on December 28, 2004. The electricity tariff is also the one regulated in the Power Purchase Agreement (PPA) signed between project owner and Hunan Qiyang Power Grid Company on December 6, 2005. In addition, from 2003 to 2008, the electricity tariff in the same area is 0.25yuan/kwh, which is confirmed by Hunan Qiyang Price Bureau. Thus the value of the tariff is reasonable and credible. According to the official statistics (Price Bureau of Chinese DNA), the material cost for production has increased 3.5% in 2006 and estimated to increase about 2% in 2007[1]. Therefore, it is impossible to decrease the total investment of the project. From the IRR calculation forms, the IRRs of the three power stations will exceed the benchmark IRR when the O & M costs decrease by 42.9%, 44.7% and 50.1%, respectively. The O & M costs include salary, repair fee, water resource fee and other costs. The salary is the key component to influence the O & M costs. According to the notices publicized by the Statistical Information of Hunan, the average laborage in Yongzhou City is 19.705 Thousand RMB ￥ in 2007 with the increase rate of 12.4%[2], 14%[3] and 20.6%[4], respectively from 2005 to 2007, and which shows an increasing trend. When the salary decreases to 0, the IRRs of the Attached Station of the Second Level of Tuanjie Power Station and the Lengshuiyuan Power Station are still lower than the benchmark IRR, while the IRR of the second Level of Tuanjie Power

	Station is 10.14%. The above analysis indicates that the salary standard for the workers is reasonable, and it is unlikely for the O & M costs to decrease to the critical point, at which the IRR can reach to the benchmark IRR. The electricity generation of the project is mainly determined by the water resource condition of the region. The data in the FSR is calculated based on 41 years hydrology data from 1949 to 1999, which is credible and reasonable. From above analysis, it can be found that the assumptions of fixed amounts over the 20-year period of the IRR calculation are appropriate. All the data used to calculate the IRR are based on the Supplementary FSR, the standards of the government. [1] The price of production materials in 2006 and expected trend in 2007: http://news.xinhuanet.com/fortune/2007-01/17/content_5615147.htm [2] Statistical Information of Hunan, the Statistical Information of the laborage of each city in Hunan Province in 2005, March 27, 2006 http://www.hntj.gov.cn/fxbg/2006fxbg/2006tjxx/200603270064.htm [3] Statistical Information of Hunan, the Statistical Information of the laborage of each city in Hunan Province in 2006, March 21, 2007 http://www.hntj.gov.cn/fxbg/2007fxbg/2007tjxx/200703210067.htm [4] Statistical Information of Hunan, the Statistical Information of the laborage of each city in Hunan Province in 2007, March 27, 2008 http://www.hntj.gov.cn/fxbg/2008fxbg/2008tjxx/200803260040.htm
Response of DOE	1. The validation team has checked in detail the timeline of the approval process in order to assess the likeliness of input value changes during the time period between the finalization of the Supplementary Feasibility Study (SFS) and the start of the project. As this time period is only 5 months i.e. from May 2005 to October 2005 the validation team has concluded that material changes during this time period are not very likely thus the O & M estimation in SFS is still valid at the time of project start. 2. The validation team has further checked the SFS approval process. The SFS has been approved by Yongzhou City Development and Reform Committee on 24th June 2005. The electricity tariff and O & M cost indicated in SFS was assessed as appropriate by the government. 3. The appropriateness of electricity tariff was counterchecked by actual values which were available at the time of the CDM management decision as well as after the completion of the construction. According to Notice regarding to electricity tariff of Tuanjie Cascade projects, Qijiage[2004]159, issued by Qiyang County Price Bureau 2004/12/28, electricity tariff of the project would be 0.25 RMB/kWh. Latest grid-connection agreement confirms 0.25 RMB/kWh, the tariff used in IRR calculation. 4. The possibility of tariff change (variation range in sensitivity analysis) in the 1st crediting period is counterchecked by supporting document: Clarification about electricity tariff, issued by Qiyang county Price Bureau dated 2008/08/12, shows that the electricity tariff of hydropower stations in Qiyang County has kept at the level of 0.25 RMB/kWh during the past 5 years.

	5. The validation team considered publicly available sources of information such as Statistic data and National economic evaluation code, to confirm the appropriateness of O & M cost. 6. The possibility of O & M cost change (variation range in sensitivity analysis) in the 1st crediting period is counterchecked by statistic information: Material price as well as average labor price has been increased during the past years. Thus we conclude that: The fixed amount electricity tariff in IRR calculation along with the 10 % variation range in sensitivity analysis is reasonable and conservative. The fixed amount O & M cost in IRR calculation along with the 10 % variation range in sensitivity analysis is reasonable and conservative. For details of the assessment of the electricity tariff, O & M cost, and other financial parameters pl. refer to the "Financial Analysis Table" (Table 4 in the attached FVR). Taken into account all aspects mentioned above the fixed amounts of the IRR calculation are appropriate over the 20-year period. Furthermore we would like to point out, that the appropriateness of the values was checked by experienced local experts, as part of the TÜV NORD validation team. If this information is not sufficient to close the request for review, we appoint Mr. Li Yong Jun as our contact person: Mr. Li Yong Jun CDM project manager China Room 11C, East Ocean Centre Ⅱ, No. 618 Yan An Rd. (E), Huangpu District, Shanghai China 200001 Tel: +86 (0)21 53855353-259 Fax: +86 (0)21 53855369

Request for Review (2-1, 2-2, 2-3)	
Issue raised by EB Members / DNA	**The DOE is requested to further clarify how it has validated the evidence of bank loan rejection.**
Response of project participant	The bank loan application history of the project is as follow: 1. The project owner submitted the bank loan application to China Construction Bank Qiyang Branch in October 2004. However, the bank loan was refused due to the low financial indicators of the project and due to the FSR has not been approved yet.

	2. The project owner submitted the bank loan application to China Construction Bank Qiyang Branch in January 2005 second time. The project owner explained the FSR approval assessment meeting would be held in February 2005 to enhance bank's confidences. However, the bank loan was refused again due to high investment, development difficulties, long investment recovery period and financial unattractiveness. 3. The project owner submitted the bank loan application to China Construction Bank Qiyang Branch in June 2005 third time. It can be found from the bank loan application letter that CDM was strongly recommended by project owner. The CDM revenues can lower the bank loan repayment risks. Furthermore, the CDM Development Agreement has already been signed. Finally, the bank approved the bank loan due to CDM and the bank loan contract was signed in August 2005. It can be found from above that the bank loan applications were refused by bank due to the low financial indicators of the project. The bank finally approved the bank loan due to CDM. Thus, the financing of the project was accomplished due to CDM.
Response of DOE	The three bank loan application letters along with bank's reply are checked in detail. On the first letter (in October 2004), reply of the bank reads: "Loan is not considered due to the fact that the internal return rate of the project is below benchmark, and that the feasibility study report is waiting for approval." On the second letter (in January 2005), reply of the bank reads: "Disagree on the loan due to high cost, development difficulty, long return period and financial unattractiveness of the project. On the third letter (in June 2005), reply of the bank reads: "Loan application is basically approved, considering that CDM can increase financial indicator of the project, and that the emission reduction revenue is good for social and economic benefit. Please arrange the related services as soon as possible." In August 2005, the Bank loan agreement from Construction Bank of China was signed, after considering the benefit from CDM revenue. This document is also checked in detail. As explained above, we assess the bank loan reject evidences as credible and reliable. If this information is not sufficient to close the request for review, we appoint Mr. Li Yong Jun as our contact person: Mr. Li Yong Jun CDM project manager China Room 11C, East Ocean Centre Ⅱ, No. 618 Yan An Rd. (E), Huangpu District, Shanghai China 200001 Tel: +86 (0)21 53855353-259 Fax: +86 (0)21 53855369