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## **CDM Team**



DAP-IS-2886.00 DAP-PL-3089.00 DAP-PL-2722 DAP-IS-3516.01 DPT-ZE-3510.02 ZLS-ZE-219/99 ZLS-ZE-246/99

Your reference/letter of

Our reference/name

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IS-CMS-MUC/Bb Werner Betzenbichler

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## **Request for Review**

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 1607. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Headquarters: Munich

Trade Register: Munich HRB 96 869



Werner Betzenbichler Carbon Management Service

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#### Response to the CDM Executive Board

## Issue 1:

The DOE is requested to explain the details regarding which input values used in the investment analysis differ in the original FSR (1999) and the updated report (2007).

# Response by TÜV SÜD:

While reassessing the projects additionality argumentation it was found that barrier analysis is more appropriate for the projects specific conditions. In the revised PDD of step 2 of the additionality assessment has been deleted and thus the question is no longer of any relevance.

In the following we will take the opportunity to describe how the barrier faced by the project activity has been validated.

Because the IRR in the original FSR is lower than the general benchmark in the Chinese power industry, the project did not launch construction at the time when completing the FSR in 1999. In July of 2001, a government grant (51.819 million RMB) was promised by Hubei Water Resources Bureau and the local county government (Information Reference List – Annex 2 to the validation Report, in short 'IRL' No. 25), as well as the World Bank loan guaranteed in June of 2002, the construction had started in November of 2002 (IRL12). However, the promised grant of the Hubei Water Resource Bureau has never been deposited into the project owner's construction account (refer to cancelation letter of the loan IRL 55), which caused the tight cash flow and delayed the progress of construction.

Learning from the introduction notice issued by Ministry of Science and Technology of China in March 2005, the project owner started to explore the possibility of CDM support in March 2005 (IRL45). In July of 2005, according to the cancellation notice issued by Hubei Water Resources Bureau (IRL55), the government grant was officially withdrawn which directly induced the cash flow break in September 2005. Consequently, the construction work had been stopped in September 2005 (IRL49). According to the meeting minutes of the communication between the construction company and project owner, the construction was expected to not continue till the project owner could pay off the debts.

With the plausible CDM revenue, the project owner applied for an urgent loan from the bank Nanzhang County Rural Credit Cooperation (China Xinhe) (IRL21). As required, a financial risk-analysis report was worked out by the Nanzhang County Rural Credit Cooperation and project owner on Sept. 27, 2005 (IRL58). Referring to this report, the CDM revenue became the key element to improve the investment return. According to the approval letter issued by the bank, the ability to service debt without CDM is poor. However, considering the additional sales income of CER, the ability is improved, hence the loan could be released (IRL21). The official loan agreement was undersigned on September 30<sup>th</sup>, 2005. With the guarantee from the bank, the project owner negotiated with the construction company again in October. As soon as the



loan was transferred, the construction re-started in November of 2005. Considering the cancellation of the government grant and the increasing investment costs in recent years in China, as per the requirement of NDRC, a financial re-assessment report was developed by Hubei Institute of Water Conversation and hydroelectric Exploration & Design and approved in October of 2006 (IRL24), revealing an IRR of 5.6%. Hence we accepted the project to request for registration, as it could be demonstrated that the projects financial indicator was consistently below the benchmark rate of 8%.

After having received the request for review the client decided to skip step 2 of the additionality tool and elaborated step 3 in more detail in the revised PDD. At the same time our validation opinion now is based on the investment barrier discussed above and in the revised PDD.

## Response by PP:

First of all, description of the timeline for the project is shown as below.

The project started planning in the 1950s, but the construction was not started due to low generating capacity and economic gain until it received grant promise from provincial and county governments and loans from the World Bank under the name of "Hydropower Projects in Poor Areas of Hubei Province".

Prior to the very beginning of construction period, the Hubei Water Resources Bureau and local county government promised the project owner HNXPC a 51.819 million RMB grant because the project improved area irrigation and flood prevention. This grant was first mentioned in July 2001. However, the promised money from this grant had never been deposited into the project owner's construction account.

On June 25, 2002, considering the Xiakou financial attraction increasing because of the government grant, the World Bank approved and promised the loan to the project under the name of "Hydropower Projects in Poor Areas of Hubei Province".

In November 2002, the initial construction started.

Facing the high pressure of tight cash flow before mid 2005, the project developer began exploring the possibility of selling of carbon credits generated by project activity in April 2005 which is caused by the delay of payment from government grant, right after they learned the concept of CDM from an official document issued by the by Ministry of Science and Technology (MOST) of China on March 23, 2005. The project developer also tried to apply for more loan support from Nanzhang County Rural Credit Cooperation (NCRCC). But it was not approved by NCRCC due to the project's low financial revenue.

After policy adjustment and the local government's financial difficulties, the above mentioned grant from Hubei Water Resources Bureau was cancelled in July 2005. It made the project owner's turnover of capital more difficult than before. Moreover, the expected grant from local county government had not been paid either, until it was cancelled in September 2006.

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At this time, the project developer urgently started to actively scout CDM consultants to prepare for the CDM application. On August 22, 2005, the project owner signed a CDM contract with a professional CDM consultant "Beijing Arreon Consulting Company".

In September 2005, the project owner's cash flow broke. The construction work was stopped on September 18, 2005. The shut-down period lasted for 2 months because of the delay of payment to the contractors for project construction. The project owner applied an urgent loan from Nanzhang County Rural Credit Cooperation (NCRCC) to start the project re-construction. As a requirement of NCRCC for loan application, a financial risk-analysis for the project, with consideration of the CDM revenue, was made by NCRCC on September 27, 2005. The project owner, Hubei Provincial Power Company, Hubei Institute of Water Conversation and Hydroelectric Exploration & Design (HIWCHED) and Beijing Arreon Consulting Company were also asked to help in the progress of this financial risk-analysis. The funds expected to be generated by the sale of CERs were taken into consideration in this risk-analysis. Considering the CDM support would make the project's total revenue meet NCRCC's loan application standard, the financial risk-analysis was adopted by the NCRCC to approve the loan application from the project owner. The loan application was approved by NCRCC on September 29, 2005, and the project owner got a 10 million Yuan urgent Loan from NCRCC.

On November 20, 2005, re-construction of the project started, with the loan help from CDM incentive. Therefore, the project owner considered CDM impact seriously prior to start of reconstruction. The CDM support made significant positive effect on project's development, prior to start of the project activities.

From September 2005 to August 2006, since the designated CDM consulting company was involved with personnel problems and organization change of transforming to a professional CDM buyer, the PDD development and CDM application progress was slow.

In September 2006, the financial risk-analysis was adopted and further made as an official financial re-assessment report by the Hubei Institute of Water Conversation and Hydroelectric Exploration & Design (HIWCHED). It was soon submitted to Hubei Bureau of Water Resources, for verification and approval, in order to officially apply for China DNA's CDM letter of approval. In October 2006, it was approved by the Hubei Bureau of Water Resources (evidence provided). In November 2006, Hubei Xiakou Hydropower Project was approved by China DNA as a CDM project. In January 2007, the official letter of approval for CDM was issued by China DNA. The on-site CDM validation was done soon after that.

We revised the project PDD. With reference to revised PDD, in the additionality analysis, the barrier analysis is used instead of investment analysis.

See also attachment below: Xiakou CDM Timetable



## Issue 2:

The PP/DOE are requested to explain why the investments made prior to thee project start date (November 2005) are considered in the investment analysis.

## Response by TÜV SÜD:

While reassessing the projects additionality argumentation it was found that barrier analysis is more appropriate for the projects specific conditions. In the revised PDD, step 2 of the additionality assessment has been deleted and thus the question is no longer relevant. Please refer to our response to issue 1 above for details on the additionality assessment.

## Response by PP:

We revised the project PDD. With reference to the revised PDD, in the additionality analysis, the barrier analysis is used instead of investment analysis. In the following we will describe why it is considered appropriate to re-assess the entire financial indicator of the project with re-start of construction.

Referring to the project timeline, during the initial construction shut-down period, in order to fulfill the requirements of Nanzhang County Rural Credit Cooperation (NCRCC), a reassessment of the formed fixed assets was required by NCRCC, used for the overall financial risk-analysis for loan application. With reference to the assets assessment report (made by Xiangfan Zhong Xing Da Asset Assessment Firm, September 22, 2005), NCRCC considered the investments before the project re-construction as a part of the whole project investment for the financial risk-analysis. Therefore, the investment made prior to the project start date (November 2005) was considered in the investment analysis.

With reference to the Nanzhang Xiakou power company's documents about the accounting of Xiakou Hydropower Station project expenditures, before the project stopped, they had paid more than 130 million RMB which formed the fixed assets of the project. This expenditure had 100% direct relationship with this project.

The project owner found a capital assessment firm to make assessment of the fixed assets of Xiakou project constructed before project stopped. With reference to the assets assessment report (made by Xiangfan Zhong Xing Da Asset Assessment Firm, September 22, 2005), the fixed assets have the value of 138,651,116.75 RMB. This assessment of the fixed assets was considered in the financial risk-analysis of the project made by Nanzhang County Rural Credit Cooperation (NCRCC) on September 27, 2005.

With reference to The Company Law of the People's Republic of China, a shareholder may make capital contribution in fixed assets. If the project were transferred to other investors, other investors had to pay for the expenditure for the initial construction. Though at last the project owner learnt this project could apply for CDM, they decided to re-start the construction of this project. So the investment made prior to the project re-start date is a necessary part of the project construction, in the form of fixed assets. It can not be neglected by any investors.

This type of financial assessment is prevailing practice in China.

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Citation: The Company Law of the People's Republic of China

Aticle 27 A shareholder may make capital contributions in currency, in kind or intellectual property right, land use right or other noncurrency properties that may be assessed on the basis of currency and may be transferred according to law, excluding the properties that shall not be treated as capital contribution s according to any law or administrative regulation.

Source: http://www.cngsf.com/gongsifa/01.htm

#### Issue 3:

As the start date of the project activity is prior to the starting of validation the PDD should contain a full description of the evidence showing the serious consideration of the CDM and the validation report must provide greater details regarding how compliance with this requirement has been validated.

## Response by PP:

Referred to the project timeline, after more than 2 years of construction, in early 2005, facing the high pressure of tight cash flow, the project developer began exploring the possibility of selling of carbon credits generated by project activity in April 2005, right after they learned the concept of CDM from an official document issued by the by Ministry of Science and Technology (MOST) of China on March 23, 2005. The project developer also tried to apply for more loan support from Nanzhang County Rural Credit Cooperation (NCRCC). But it was not approved by NCRCC due to the project's low financial revenue.

After policy adjustment and the local government's financial difficulties, the above mentioned grant from Hubei Water Resources Bureau was cancelled in July 2005. It made the project owner's turnover of capital more difficult than before. Moreover, the expected grant from local county government had not been paid either, until it was cancelled in September 2006.

At this time, the project developer urgently started to actively scout CDM consultants to prepare for the CDM application. On August 22, 2005, the project owner signed a CDM contract with a professional CDM consultant "Beijing Arreon Consulting Company".

In September 2005, the project owner's cash flow broke. The construction work was stopped on September 18, 2005 (evidence provided). The shut-down period lasted for 2 months because of the delay of payment to the contractors for project construction. The project owner applied an urgent loan from Nanzhang County Rural Credit Cooperation (NCRCC) to start the project re-construction. As a requirement of the NCRCC for loan application, the financial risk-analysis for the project, with consideration of the CDM revenue, was made by NCRCC on September 27, 2005 (evidence provided). The project owner, Hubei Institute of Water Conversation and Hydroelectric Exploration & Design (HIWCHED) and Beijing Arreon Consulting Company were also asked to help in the progress of this financial risk-analysis. The funds expected to be generated by the sale of CERs were taken into consideration in this risk-analysis for the first time. Considering the CDM support would make the project's total revenue meet NCRCC's loan application standard, the financial risk-analysis (dated 27/09/05) was adopted by the NCRCC to



approve the loan application from the project owner. The loan application was approved by NCRCC on September 29, 2005, the loan was signed September 30, 2005.

On November 20, 2005, re-construction of the project started, with the loan help from CDM incentive. Therefore, the project owner considered CDM impact seriously prior to start of reconstruction. The CDM support had, significant positive effect on project's development, prior to start of the project activities.

In September 2006, in order to officially apply for China DNA's CDM letter of approval, the financial risk-analysis (dated 27/09/2005) was adopted and further made as an official financial re-assessment report (evidence provided) by the Hubei Institute of Water Conversation and Hydroelectric Exploration & Design (HIWCHED). This financial re-assessment report (dated 20/09/2006) was soon submitted to Hubei Bureau of Water Resources, for verification and approval. In October 2006, it was approved by the Hubei Bureau of Water Resources and then submitted to China DNA in Beijing. In November 2006, Hubei Xiakou Hydropower Project was approved by China DNA as a CDM project. In January 2007, the official letter of approval for CDM was issued by China DNA.

# Response by TÜV SÜD:

The time line of the project activity has been elaborately described in previous sections. Due to the government grants promised by Hubei Water Resources Bureau and local county government (IRL25), the construction of the project was launched. However, the guaranteed money has never been deposited into project owner's account (IRL26, IRL55). Consequently, the cash flow became worse and broke, accompanied with the cancellation of the government grant in September 2005 (IRL55). Worrying about the ability of paying off the debt, the construction company, Gezhouba Sixth Enginering Co., Ltd. stopped the construction work in the same month (IRL49). Overcoming the investment barrier became the crucial problem to the project owner. Considering the plausible sales revenue of selling CER which was learned in April of 2005 (IRL45), the project owner negotiated with the bank for an urgent loan. As per the assessment requirement, a financial risk-assessment report was developed by Nanzhang County Rural Credit Cooperation and project owner on Sept. 27<sup>th</sup>, 2005 (IRL60). It is declared in this report that the financial position of the project was poor and the ability to borrow does not reach the criteria of releasing the loan. However, the CDM revenue would improve the ability to service debt; therefore, an urgent loan could be delivered (IRL21). On September 29th 2005, the loan application was approved. Guaranteed with the approved loan, a negotiation with the construction company was carried out in October 2005. On November 11, 2005, the construction was continued (IRL51). Therefore, the re-start date of construction was set to be the starting date of project activity. To explain the whole project activity more transparently, additional evidences have been delivered by the project participant. Hence, the Annex 2 (IRL - document reference list) of the validation report is updated accordingly.

We are confident about the PPs serious consideration of the CDM prior to re-launching the construction for several reasons:

 The IRR of the project was never exceeding the benchmark, not in FSR of 1999 nor in FSR of 2006. The projects construction could only be launched due to a promised loan



- of the local government, which was never received by the project owner (IRL 25, IRL26, IRL55). Thus we conclude there has been an obvious need for funding once the governmental grant was cancelled in July 2005 (IRL55).
- During first half of 2005, as the promised governmental founds were not received, the PPs have investigated possible scenarios as to how the investment barrier faced by the project could be overcome. In March 2005 it was recommended by Ministry of Science and Technology of People's Republic of China to consider the CDM as financing option (IRL45). Even before the new loan based on CDM revenues was released in the end of September 2005, which allowed the project to move on (IRL21), the PPs had signed a CDM consultancy contract with the CDM developer Arreon Carbon in August 2005 (IRL56).

## Issue 4:

The PP should provide further monitoring details of the two systems (30 MW and 1.6 MW).

#### Response by PP:

As showed in the figure 1, the electricity quantity supplied to the Grid and electricity quantity input from the Grid (as mentioned in B7.1 of PDD) by the two systems (30MW and 1.6MW) were measured by the only meter in Xiakou hydropower station (Meter 3, which is a two-way meter). The total net electricity supplied to the Central China Power Grid equal to electricity quantity supplied to the Grid minus electricity quantity input from the Grid. The meter 3 is located at output side of the transformer of the Xiakou hydropower project plant. Meters 1 and 2 installed at Huazhuang Substation are used for crosscheck of meter 3.

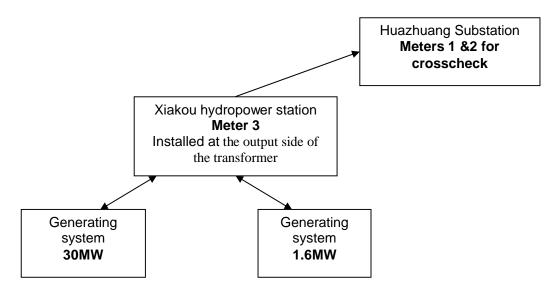


Figure 1. Bus bar structure in Xiakou hydropower station



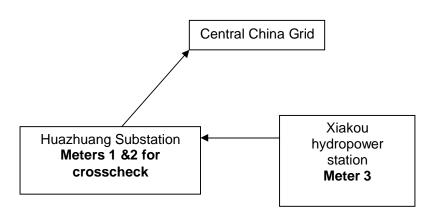


Figure 2. Location of the meters

Meter 1: Hongxiang BDMI; Meter 2: Siemens ZFB405; Meter 3: Siemens ZFB405

The total net electricity supplied to the Central China Power Grid by both system (30MW and 1.6MW) is directly measured with measuring meter 3, and verified with invoices or receipts (readings from meters 1, 2 as backup) from the grid company.

# Response by TÜV SÜD:

The monitoring system described by PP presents the real system verified on site. Moreover, according to the power purchasing agreement with Hubei Grid Company in March of 2006 (no. 18 document listed in the Annex 2 of validation report), the electricity fed to the grid and supplied from the grid will be directly measured via the meter 3 which is a bidirectional electricity meter.



# Attachment: Xiakou CDM Timetable

The following timetable illustrates the whole process showing the serious consideration of the CDM. Answers to your questions are also attached following each question.

Time	Events	
July 9, 2001	A grant from the Hubei Water Resources Bureau and local	
	county government was mentioned (Evidence 1)	
June 25, 2002	The World Bank Loan was approved and promised (Evidence	
	1B)	
November 2002	The Initial Construction started, river closure	
January 21, 2003	The World Bank Loan was issued (Evidence 2)	
April 5, 2005	The client was exploring the possibility of selling CER, based	
	on an official document issued by Ministry of Science and	
	Technology (MOST) of China (Evidence 3)	
July 28, 2005	The grant from the provincial government was cancelled (Evidence 4)	
August 22, 2005	CDM contract was signed with Beijing Arreon Consulting	
	Company (Evidence 5)	
September 18, 2005	The project owner's cash flow broke. The construction work	
	was shut down for 2 months because of the delay of payment	
	to the contractors for project construction (Evidence 6)	
September 19, 2005	As required by NCRCC, the project owner made a report to	
	request for assessment of the fixed assets of partially con-	
	structed Xiakou project when project stopped,	
	(evidence 7).	
September 22, 2005	As required by NCRCC, the assessment of the fixed assets of	
	partially constructed Xiakou project when project stopped was	
	done (evidence 8)	
September 27, 2005	The financial risk-analysis of the project was made by the	
	Nanzhang County Rural Credit Cooperation (NCRCC), with	
	the help of the project owner, the Hubei Institute of Water	
	Conversation and Hydroelectric Exploration & Design	
	(HIWCHED) and Beijing Arreon Consulting Company on Sep-	
	tember 27, 2005 (evidence 9).	
September 29, 2005	The Loan application was approved by NCRCC, considering	
	the CDM support would make the project's total revenue meet	
	NCRCC's loan application standard (evidence 10)	
November 20, 2005	Re-construction started, with help from CDM incentive.	
September 20, 2006	The expected grant from local county government was cancelled.	
October 17, 2006	The project financial re-assessment was officially approved.	
	(Evidence Add2)	
January 18, 2007	LOA was issued by China DNA.	



# TUV SUD's Remarks to the Attachment: Xiakou CDM Timetable

The evidences mentioned in the timetable have been listed in the updated Annex 2 (document reference list) of validation report and the reference numbers of evidences have been converted into the sequence numbers of Annex 2. Pls. kindly check the following reference table.

Sequence numbers of PP's evidence	Sequence numbers of Annex 2
Evidence 1	No. 25
Evidence 1B	No. 53
Evidence 2	No. 14
Evidence Add1	No. 54
Evidence 3	No. 45
Evidence 4	No. 55
Evidence 5	No. 56
Evidence 6	No. 57
Evidence 7	No. 58
Evidence 8	No. 59
Evidence 9	No. 60
Evidence 10	No. 61
Evidence Add2	No. 65