

TÜV SÜD Industrie Service GmbH · 80686 Munich · Germany





Your reference/letter of	Our reference/name	Tel. extension/E-mail	Fax extension	Date/Document	Page
	IS-CMS-MUC/	+49 89 5791-3038 Rachel.Zhang@tuev-su	+49 89 5791-2756 ed.de	2008-12-02	1 of 11

Response to Request for Review

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 1969. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Ciciyun Thong

Cuiyun Zhang Carbon Management Service

Supervisory Board: Dr.-Ing. Manfred Bayerlein (Chairman) Board of Management: Dr. Peter Langer (Spokesman) Dipl.-Ing. (FH) Ferdinand Neuwieser

Telefon: +49 89 5791-2246 Telefax: +49 89 5791-2756 www.tuev-sued.de TÜV SÜD Industrie Service GmbH Niederlassung München Umwelt Service Westendstrasse 199 80686 Munich Germany



Response to the CDM Executive Board

<u>Issue 1</u>

The DOE is requested to provide reliable evidence that CDM was considered prior to the project start date and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation, following the guidelines from paragraph 5, EB 41, Annex 46.

Response by the Project Participants:

Background:

Paragraph 5, EB 41, Annex 46

Proposed project activities with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are required to demonstrate that the CDM was seriously considered in the decision to implement the project activity. Such demonstration requires the following elements to be satisfied:

(a) The project participant must indicate awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this would include, inter alia, minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a CDM project activity.

(b) The project participant must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this should include, inter alia, contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat;

Based on the approved Feasibility Study Report (hereinafter refers "FSR")¹ of the project completed in March 2003 and the grid connection intent agreement² signed on June 16th, 2003 (in which the estimated grid price was proved to be 0.15 Yuan RMB/kWh (VAT excluded)), the IRR of the project was lower than the benchmark. But at that time, the project owner had known CDM from Ya'an Water Conservancy Association³ (hereinafter refers "Ya'an Association") and know the CDM revenues can improve the IRR of the project, so the project owner made a decision to apply for CDM⁴ (It was called "green fund" then in China at that time) project activity in June 2003. Afterwards, they signed the CDM cooperation agreement with the Ya'an Associa-

¹ Appendix 1 of PDD requesting for registration

² Appendix 4 and 5 of PDD requesting for registration

³ Appendix 3 of PDD requesting for registration

⁴ Appendix 3 of PDD requesting for registration



tion⁵. In the end of 2003, China International Center for Economic and Technical Exchanges (CICETE) published a notice on the website to choose some CDM projects. However, the project missed the good chance. In June 2004, the Interim Measures for the Management and Operation of CDM Projects in China was issued, stipulating the application procedure and permission requirements. With full confidence of success CDM application, the project owner signed the main equipment purchase agreement⁶ on September 8, 2004, which is the earliest starting date of the project activity. Therefore, the project owner seriously considered the benefits of CDM prior to the earliest starting date of the project activity.

In the end of 2004, the project owner gave up the cooperation with the Ya'an Association, because Ya'an Association cannot find an appropriate buyer for the project. In early 2005, the project owner contacted with Beijing Tianging Power International CDM Consulting Co., Ltd. (hereinafter refers "Tianging") and then both parties signed cooperation agreement⁷ on May 30 2005. The application work started from then on. The project was recommended to buyers very soon, and one buyer was very interested and signed Letter of Interest⁸ in October, 2005. Meanwhile, the Measure for the Management and Operation of CDM Projects in China was issued, which stipulates the development of CDM projects. Although the buyer was very interested on this project, the participants did not agree on some issues of the Emission Reduction Purchase Agreement (hereinafter refers "ERPA"). In the middle of 2006, the first buyer had to give up the project. Therefore, Tianging have to prepare documents and draft PDD for looking for another buyer for the project. In the end of 2006, Tianging started contacting with Edison, who decided initially cooperate with Tianging on this project. In February, 2007, the project was submitted to Chinese DNA and soon published on the website for LOA approval on April 2, 2007. Soon, Edison signed the cooperation agreement with Tianging⁹ on some CDM projects (including the project) on April 4, 2007, and also signed the Letter of Intent for the project. Since then, the CDM application of the project went much more smoothly than before. After deep investigation and due diligence, the project participants signed ERPA in June 22, 2007. The PDD of the project was published in website of UNFCCC for global stakeholder consultation (CDM PDD for GSP) from July 20, 2007. Soon the DOE held a site validation on August 8, 2007. Therefore, the project owner kept continuing and real actions on CDM application in parallel with the implementation of the project.

It can be concluded that the project owner seriously considered the potential of CDM revenues before the starting activities of the project activity, and that it played a crucial role in overcoming the barriers towards the implementation of the proposed project activity.

Below we provide a summarized implementation schedule of the project, illustrating the main events.

⁵ CDM cooperation agreement with the Association, July 16, 2003

⁶ main equipment purchase agreement, September 8, 2004

⁷ CDM cooperation agreement with Tianqing, May 30, 2005

⁸ Letter of interest, October 26, 2005

⁹ CDM cooperation agreement between Tianqing and Edison, April 4, 2007



Date	Key Event				
03-03-2003	The stockholders of project owner knew information about CDM from Ya'an Water Con-				
	servancy Association and began to negotiate cooperation on CDM application				
03-2003	The FSR was completed by Sichuan Qingyuan Engineering Consultant Co., Ltd.				
16-06-2003	Grid connection intent agreement was signed.				
20-06-2003	Directorate decision for applying CDM project activity				
16-07-2003	CDM cooperation agreement with Ya'an Association				
20-08-2003	Approval of FSR by Sichuan Development and Plan Committee				
08-09-2004	The main equipment purchase agreement was signed. (the earliest starting date of the project activity and the date of investment decision)				
30-05-2005	CDM cooperation agreement with Tianqing, the project owner gave up the cooperation with the Ya'an Association, because Ya'an Association cannot find an appropriate buyer for the project for a long time.				
26-10-2005	Letter of interest with first huver				
20-10-2003					
08-2006	i ne first generator was in operation				
12-2006	The PDD was finished for LOA of host country				
12-2006	The second generator was in operation				
02-04-2007	The approval of the project was published on website of Chinese DNA				
04-04-2007	The CDM cooperation agreement with Tianging on this project				
05-2007	All generators were in operation				
22-06-2007	Signed ERPA				
20-07-2007	The PDD of the project was published in website of UNFCCC for global stakeholder con- sultation (CDM PDD for GSP)				
08-08-2007	The DOE held the site validation				

Response by TÜV SÜD:

According to the information evidenced during the assessment and related documentation, it's confirmed that the CDM was seriously considered before proceeding with the purchasing of the main equipment and with the real implementation of the project on 8th September 2004.

In particular it's here underlined that the following events, which all precede the above mentioned investment decision, have demonstrated the early consideration of the CDM:

- The minute of the directorate decision dated June 20th, 2003;
- The CDM cooperation agreement with Ya'an Water Conservancy Association, dated July 16th, 2003.

These documents have been both evidenced during the on-site assessment. Furthermore it's confirmed that the earliest project's starting date has been correctly identified as the day in which the investment decision was taken (Equipment Purchase Agreement, signed on September 8th, 2004).

The evidences as verified on site and the additional clarifications provided with this further assessment, allow the DOE to state that the project participants were not only or simply aware of the CDM but had actually decided to apply for it before proceeding with any investment.

As defined with the CDM cooperation agreement with Ya'an Water Conservancy Association, dated July 16th, 2003, the project participants assigned the CDM application to an external party.

Less than two months after the cooperation agreement for the CDM, the main equipment purchase agreement was signed on September 8th, 2004. As the Ya'an Water Conservancy Association was not able to find a buyer in more than one year, the project participant decided to retail the contract and look for some other party to develop the application. According to this a



contract with the company Beijing Tianqing Power International CDM Consulting Co., Ltd. was signed on May 30th 2005. These contracts demonstrate that real action was taken to secure the path to the CDM status. Furthermore, few months later, a first letter of interest was signed with a potential buyer on October 26th, 2005. Evidence of the document has been verified throughout the assessment and it is considered an important element in demonstrating that continuous an parallel action was taken to secure the CDM status.

The first potential buyer did not agree on some particular conditions regarding the ERPA to be signed, therefore decided to withdraw its intention in the middle of 2006, leaving the project participant without a buyer. As consequence, the company Beijing Tianqing started contracted with a new buyer (Edison SpA) who then signed the ERPA on June 2007.

According to the evidences collected it's confirmed that continuing and real actions were taken by the PPs throughout the different periods of implementation of the project as a CDM. The main cause for the delays has been furthermore clarified to be strictly related to the time required to find for a buyer and withdraw of the interest of the first buyer as enlightened.

Issue 2

Further clarification is required on how the DOE has validated the suitability of the input values in line with the requirements of EB 38, paragraph 54(c). Suitability of tariff need to be further substantiated, in particular, the FSR considers a higher value and the contract agreement is signed only for 10 years.

Response by the Project Participants:

According to paragraph 54 of the EB 38 report:

"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 crosschecking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision."

The approved Feasibility Study Report (FSR) was the basic reference for investment decision. The FSR was completed in March 2003 by the independent and certified "Sichuan Qingyuan Engineering Consultant Co., Ltd." (It has obtained a "grade B" in hydropower project design industry issued by the Construction Bureau of Peoples' Republic of China, and a "grade B" in engineering investigation industry issued by the Construction Bureau of Sichuan Province) and subsequently approved by local government (i.e. the "Sichuan Development and Reform Committee") in August 2003 (therefore, the input values from the approved FSR are valid and applicable at the time of the investment decision, the earliest starting date of the project is September, 2004, which is the date of equipment purchase agreement). As the FSR has been completed by an independent and certified institute and approved by the local DRC, the FSR can be considered as an independent and realistic assessment of the proposed project activity, including the parameters listed and used as input values in the IRR calculation of the PDD for requesting registration.

Most input values are cited from the FSR of the project, except the grid price, because the grid price in the FSR was calculated reversely according to loan payback period but not a real price. However, the project owner signed the grid connection intent agreement with the local grid company in June 2003 before CDM decision. In the agreement, the signed estimated grid price was only 0.15 Yuan RMB/kWh without VAT, which is more applicable than the calculation one



in FSR and valid at the time of the investment decision.

The project began to operate from May 2007. Therefore, the important input values at the time of the investment decision can be cross checked using the actual data available to demonstrate the additionality.

	Input values at the time of the investment decision (PDD)	Actual values	Comment
Annual electric- ity supplied to the grid	260,420MWh	226,816MWh ¹⁰	The actual value is power from November 2007 to October 2008
Grid Price	0.15Yuan RMB/kWh without VAT	0.1709 Yuan RMB/kWh without VAT ¹¹	The actual grid price of the project in Power Purchase Agreement (PPA) is a little higher than the estimated one in the grid connec- tion intent agreement , but the actual investment has been in- creased dramatically, which cause a post-tax project IRR ¹² lower than the benchmark finally.
Static Total investment	314,054,900Yuan RMB	The actual investment until October 2008 is 371,969,800.41 Yuan RMB ¹³	The actual investment until October 2008 is higher than the deigned investment in FSR, and other 43,583,400Yuan RMB ¹⁴ should be invested by the project owner for the transmission project approved by local government.
Annual operat- ing costs	9,430,000 Yuan RMB ¹⁵	10,055,000Yuan RMB ¹⁶	The actual operating costs in 2007 are much higher than the one used in IRR calculation.

Table 2 the input values at the time of the investment decision and actual values

The annual electricity supplied to the grid:

The annual electricity supplied to the grid in PDD requesting for registration is from the approved FSR. The annual electricity supplied to the grid of the project is limited by 40 years (1960~2001) hydraulic statistics and the load of local grid¹⁷, which is estimated as Electricity Balance Analysis of local grid. Therefore, large changes of electricity supplied to the grid in the whole crediting period will rarely happen. In addition, the actual electricity supplied to the grid from November 2007 to October 2008 is lower than the designed one in PDD. Therefore, the annual electricity supplied to the grid in PDD requesting for registration is conservative.

¹⁰ The electricity supplied to the grid of the project in 2007 and 2008

¹¹ The Power Purchase Agreement (PPA) 2007 and 2008, and the electricity sale invoices of the project

¹² The project IRR post tax is calculated as 6.27% using the actual investment and grid price.

¹³ Based on the financial balance sheet of project owner of October 2008, the actual investment is 371,969,800.41 Yuan RMB till October 2008. The project owner will build a transmission project (approved by local government) for the hydropower station, and 43,583,400Yuan RMB should be invested by the project owner. Therefore, the final actual total static investment should be 415,553,200.41 Yuan RMB.

¹⁴ The approval of transmission project by local DRC, April 23, 2008

¹⁵ The Annual operating costs come from approved FSR

¹⁶ The operating cost of 2007

¹⁷ It will be explained in detail in question 3.



The grid price:

According to Interim Regulations of Hydropower Construction Project Financial Evaluation, the grid price in FSR could be back calculated based on the loan condition. Therefore, in the FSR, the IRR was calculated with a higher grid price, which is back calculated according to loan payback period. Namely, the grid price in FSR is only a back calculation value, which is different from the actual situation of the project. Therefore, it is difficult to estimate a real situation of the project using this grid price. So, the estimated grid price 0.15 Yuan RMB/kWh without VAT in the grid connection intent agreement has been employed in the PDD requesting for registration. In the grid connection intent agreement, the grid company promise a ten year period for power purchasing, however, once the actual grid price was confirmed when the project is just in operation, it is difficult to change. Because in China, the grid price is strictly regulated by China government and it is established on strict regulation rather than the market mechanism, so it is hard to forecast the future grid price by the project owner. As the grid price is related tightly to the national economy and livelihood of people, the government of China has to make the grid price steady in a long time. The signed grid price is 0.1709 Yuan RMB/kWh without VAT in the PPA in 2007 and 2008, which is a little higher than the estimated price (0.15 Yuan RMB/kWh without VAT) in 2003 at the CDM considering decision, however, as described above, once the actual grid price was confirmed when the project is just in operation, it is difficult to change. Moreover, the actual static total investment is also increased dramatically, which also cause a project IRR lower than benchmark.

The total static investment:

Based on the Financial Balance Sheet in October 2008, the actual investment is 371,969,800.41 Yuan RMB till October 2008.¹⁸ Besides, the project owner will build a transmission line project for the station approved by local government, and 43,583,400Yuan RMB for the transmission line will be invested by the project owner. Therefore, the final actual total static investment should be 415,553,200.41 Yuan RMB, much higher than the value (314,054,900Yuan RMB) in FSR. Therefore, the static total investment in PDD requesting for registration is more conservative.

Therefore, based on the above cross-check, the important input values used in the financial analysis is more conservative than the actual values. The project is still additionality in actual operation condition.

Response by TÜV SÜD:

The validation team have assessed the additionality of the project trying to clarify the reasons that took the project participants to refer to the Feasibility Study Report (dated March 2003) as the source for the input values excluding the grid price which was taken according to the Grid Connection Intent Agreement dated June 16th, 2003. The concern of the DOE was in fact that the price mentioned in FSR (0.216 Yuan RMB/kWh) was significantly higher than the one mentioned in PDD (0.15 Yuan RMB/kWh) taken from the Grid Connection Agreement. Both previous validation experiences in China and further clarifications asked on the issue to project participants, have allow the DOE to confirm that the Feasibility Study Report did not refer to the grid price as an independent parameter but considered it as a result of the analysis itself, given the expected costs and the loan conditions in terms of the established payback time.

¹⁸ The final account report of the project is not finished completely because the project is under acceptance check now.



With this approach, the grid price which was likely to be obtained by the power plant at the time the PPs had to decide for the investment assumes a high relevance in the assessment of the financial additionality. For this reason, the Grid Connection Intent Agreement between the project owner and the Sichuan Liyuan Electricity Development Co., Ltd has been a key element to evaluate the feasibility of the project. The length of the contract (set to be 10 years) was seen by the DOE as a common reference period, which, even if short, could anyway at the time allow the PPs to use the mentioned price of 0.15 Yuan RMB/kWh to perform the investment analysis. Furthermore, any analysis which would employ dynamic input values on a year by year basis, should likely result in a lower IRR: in fact, according to the expertise reached in hydropower projects in China, any supposed increase in the grid price is more than balanced by the increase in the operational costs which usually lead to a lower project income throughout the years.

The price which has been actually received by the project was also object of consideration by the DOE: a little higher price of 0.1709 Yuan RMB/kWh (without VAT) was set according to the Power Purchase Agreement 2007 and exactly the same price has been confirmed with the Power Purchase Agreement 2008. The fact that in 2008 still the same price of 0.1709 Yuan RMB/kWh has been confirmed , allow to further confirm the validity of the assumption done in 2003 according to the Grid Connection Intent Agreement. Moreover, It should be noted that, performing the benchmark analysis with the figures as in PDD and the grid price of 0.1709 Yuan/kWh, the IRR still result below the 8% benchmark; in addition, the comparison between the actual figures and the same as in PDD, allows to state that the slightly higher price received by the project have been largely balanced by the increase in investment costs, leading to a decrease in the final IRR.

Furthermore, as underlined during the validation activity and confirmed by this further assessment, the investment parameters (Annual electricity supplied to the grid, Static Total Investment and Annual operating costs) as in FSR (dated March 2003) have been evidenced as conservative and reasonable estimations of the actual figures. To compare the values of the actual figures of the key operational and investment parameters with the same as indicated in PDD, the following documents have been verified:

- Power production receipt (year 2007 and 2008): the document provide on a monthly basis both the power produced and the power delivered to the grid; the power produced (229,545 MWh) and the power delivered to the grid (226,816 MWh) between November 2007 and October 2008 has been taken as reference.
- The financial balance sheet November 2008: the static Total Investment undertaken by the project up to October 2008 has been about 371,969,800 Yuan RMB/kWh.
- The balance of the Operating Costs of Wanba Station in 2007: the document confirms the estimations as reported in PDD. The operational costs, which are strictly related to the chinese regulations in terms of water charges, reservoir fund, overhaul and insurance, have demonstrated a short margin of variability as the actual costs in 2007 have been 10,055,000 Yuan RMB which is only slightly higher than the value used in PDD.

According to the above, the DOE confirms that the uncertainties on the validity of the input values used in PDD to perform the investment analysis have been minimized and clarified.

Issue 3:

The PP/DOE is requested to clarify how the reported power loss of 25% is appropriate in the context of the underlying project activity.



Response by the Project Participants:

The power loss of 25% is caused of the poor load of local grid. The coefficient of effective electricity¹⁹ of local hydropower station is only 75%.

According to Hydroenergy Design Code for Hydro Power Projects (SL76-94) approved by the Ministry of Water Resources (please see the document at website:

http://www.chinawater.net.cn/guifan/bz_pdf/SL76-94/05.pdf):

- For small scale hydropower stations, the coefficient of effective electricity and effective power generation could be calculated according to the Economic Evaluation Regulation for Small Scale Hydropower Projects (SL-16-92);
- For the normal scale hydropower stations, there are no any legal regulations to prescribe the coefficient of effective electricity (because different grid system have different characteristic), and the coefficient of effective electricity could be calculated by Electricity Balance of local grid.

The installed capacity of the project is 69MW (a normal scale hydropower station), so according to above rule, the Design Institute has considered the coefficient of effective electricity in detail based on Electricity Balance of local grid. According to the expected Electricity Balance Analysis of local grid in Ya'an City in 2010²⁰, the power supply in dry season (the period with insufficient water resources) is not enough for demand of local grid, while the power supply in flood season (the period with sufficient water resources) is over the demand of local grid. Based on the Electricity Balance Analysis of local grid in FSR, the coefficient of effective electricity of 75% has been calculated in FSR. Therefore, the coefficient of effective electricity of 75% is proposed in FSR.

Besides, Local Grid Company (which the project connected) issued an explanation and the reasons to prove the validity of the coefficient of effective electricity of 75%. The main reasons²¹ are as following:

- comparing with the construction of hydropower stations, the construction of power grid in Shimian County (where the project is located) is lagging behind and it is beyond the capability of the power grid;
- the structure of the local grid is frail and the transmission load capacity is limited, so the bottleneck on transmission is rather common;
- due to low absorption ability and the lower load of local grid, there is large amount of the surplus of electricity during the rainy season and the grid company is not able to buy all of the power that could potentially be generated by the plants, so that this surplus electricity could not be utilized efficiently.

Furthermore, the actual annual power generation of the project from November 2007 to October 2008 is 229,545.3MWh²², while the designed annual power generation in FSR is 356,090MWh. Therefore, the actual coefficient of effective electricity is 64.46%, much lower than expected in FSR.

Therefore, the coefficient of effective electricity of 75% in FSR is conservative and credible.

Response by TÜV SÜD:

The high gap between the potential power generation and the annual electricity supplied to the grid according to a "lost" of 25% was deeply investigated by the DOE throughout the assess-

¹⁹ The coefficient of effective electricity is the ratio of actual annual power generation and designed annual power generation.

²⁰ The electricity balance in FSR

²¹ The explanation of coefficient of effective electricity

²² The power generation of the project in 2007 and 2008



ment period. The figure of the "effective coefficient" equal to 75% was taken as a reference parameter from the Feasibility Study Report (dated March 2003): this value is the result of the balance between the local absorption capability in the dry and rainy seasons, taking into consideration the demand for power in the two periods. In particular has been evidenced that the value indicated throughout the Feasibility Study Report of 75% reflects the conditions of insufficient water availability during the dry season (October to May of each year) and the condition of "over the grid capability" available power during the flood season (from June to September of each year). The result is a production which changes significantly throughout the year and in particular between the dry and the flood season, therefore affecting the annual electricity which will feed the grid. The potential power production which has been estimated in FSR according to the hydrological conditions in terms of water availability, does therefore differ from the actual power which will be produced, because full load conditions will be rarely set during the plant operation throughout the year due to the lack of adsorption capability of the grid. In other words, during the flood season, a considerable hydropower potential, which in theory could allow the plant to reach 100% of the expected production, will be partially wasted due to the evidenced limits in the grid transmission and distribution system.

The term "lost" should be therefore seen as a not completely proper term, as it refers to the difference between the potential load and the actual power produced according to the actual operational load throughout the year.

Confirmation of the validity of the assumed annual electricity supplied to the grid has been then found in the power production receipt as provided by the project participants which reports the amounts of the power produced and delivered to the grid on a monthly basis, covering the period November 2007 to October 2008. For this period, the power produced is 229,545.3 MWh and the power supplied to the grid is 226,816 MWh which clearly fit with the expected annual power delivered to the grid of 260,420 MWh as mentioned in the PDD and in the FSR.

Issue 4:

Further clarification is required on how the DOE has validated the common practice analysis, in particular, (a) the exclusion of hydropower plants below 50 MW as the project activity consist of 3 of 23 MW turbines; and (b) the exclusion of similar projects under construction.

Response by the Project Participants:

(a) the exclusion of hydropower plants below 50 MW as the project activity consist of 3 of 23 MW turbines

According to the latest version (Version 05.2) of "Tool for the Demonstration and Assessment of Additionally", projects are considered "similar" in case they, amongst others, are of "similar scale". We have excluded projects with an installed capacity below 50 MW as the scale of these projects differs significantly from the scale of the proposed project activity (i.e. 69 MW). The significant difference in scale which influences the technical and design specifications, the chosen range can be substantiated by means of official national policy documents:

- 1) The "Almanac of China's Water Power (2005, page 141)" provide the formal definition of hydropower project stations in China, which is the official classification of the Chinese government:
 - Large scale hydropower stations include hydropower stations with installed capacity more than 300 MW (including 300 MW);
 - Middle scale hydropower stations include hydropower stations with installed capacity between 50 MW and 300 MW (including 50 MW and excluding 300 MW);



- Small scale hydropower stations include hydropower stations with installed capacity between 0.5 MW and 50 MW (including 0.5 MW and excluding 50 MW).
- The small scale hydropower industry benchmark "Economic evaluation code for small hydropower projects (SL16-95)²³ provide a special 10% project IRR industry benchmark for small scale hydropower stations:
 - This industry benchmark is significantly higher than the benchmark for normal hydropower stations, and is only applicable to hydropower stations below 50 MW according to the SL16-95 regulation.

Both of Chinese policies and regulations (different standards/benchmarks) are applicable to total installed capacity of a hydropower station but not unit capacity of turbine or generator. Therefore, the project with total installed capacity of 69MW is analyzed. The total installed capacity of the project activity is 69MW, which belongs to middle scale hydropower stations, so it concludes that it is reasonable to exclude hydropower stations below 50MW as they are not similar in scale in China.

(b) the exclusion of similar projects under construction.

According to the latest version of "Tool for the demonstration and assessment of additionality" (Version 05.2), for common practice, the PDD should "Provide an analysis of any other activities that are <u>operational</u> and that are similar to the proposed project activity". Therefore, the PDD only included similar operational projects and exclude projects under construction.

Response by TÜV SÜD:

The exclusion of hydropower plants consisting of installed capacities below 50 MW (a) relies on the definition of "similar scale" plants; according to this has been evidenced by PPs and confirmed by the DOE that the most reliable Chinese standards and regulations define the 50 MW capacity as a cutting border between what should be considered as small (below 50 MW) and what should be classified as middle (or large).

The documents considered as reference have been the "Almanac of China's Water Power (2005)" and the "Economic evaluation code for small hydropower projects (SL16-95)" which both have been widely used as authoritative sources also in the CDM context.

The range chosen (50 MW to 300 MW) for the common practice analysis it's therefore confirmed to be appropriate and supported by reasonable argumentations and verifiable documents.

According to the *"Tool for the demonstration and assessment of the additionality"* (version 05.2), the DOE has validated the common practice analysis considering that projects under construction should not be mentioned as relevant in the context of the analysis. The DOE confirms that a similar approach is in compliance with the additionality tool and that it doesn't mine the reliability of the common practice as applied by the project participants.

²³ In 2002, the Ministry of Water Resources of the People's Republic of China issued the "Bulletin of Valid Hydropower Technical Standard" currently. According to this hydropower document No [2002]07 the "Revision of Economic Evaluation Code for Small Hydropower Project (SL16-95)", is still effective and enforceable