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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 2002. 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 provide further evidence of continuing and real actions taken to secure CDM status for the project activity in parallel with its implementation as per Annex 46, EB 41 para. 5b.

Response by the Project Participants:
The Preliminary Design Report (PDR) was completed in April 2005, with the reverse calculated grid price of 0.386 Yuan RMB/kWh (including VAT) and the peak adjusting grid price which is 1.8 times of grid price.[1] Then on May 6, 2005, the proposed highest grid price of the project was issued by Hubei Price Bureau to be 0.36 Yuan/kWh (including VAT)[2], therefore the expected IRR is lower than the benchmark, so the project owner face high investment risk. Fortunately, the project owner received some information about CDM, and made Directorate Decision to apply for CDM on May 27, 2005[3]. Then in June 2005, the project owner submitted an application to local government to support them applying CDM and get approval in the same month. At the same time, start of discussions between the project owner and CDM advisors on CDM application. No sooner, the project owner signed Commission Intent Letter to the CDM advisor in July 11, 2005[4]. The all dates above are earlier than the earliest starting date of the project, i.e. August 1, 2005, the approval of start construction[5]. It can be concluded that: the project owner was in an early stage aware about the potential of CDM to support its activities. CDM has played a decisive role in the successful implementation of the project.

After serious discussion and negation with CDM advisor, on August 18, 2005 the project owner signed CDM commission letter with CDM advisor finally[6]. Then CDM advisor started to look for the buyer and recommended the project to ENEL Trade SpA who was very interested in the project, and after simple due diligence, ENEL Trade SpA signed LoI on November 24, 2005, the project owner signed LoI on November 30, 2005[7]. Therefore, the CDM advisor started to write PDD and collect relevant evidences. At the same time, since the LoI was signed, ENEL Trade SpA started to do in-depth due diligence. During this period, based on the requirement of CDM application, stakeholder meeting for CDM application was held on May 19, 2006[8], and the project owner, CDM advisor and CDM buyer etc attended the stakeholder meeting. Then the PDD was completed and submitted to China DNA in October 2006, and got the approval from the China DNA on website on November 9, 2006, and got Chinese LOA (paper-pattern) in De-

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1 Sourced PDR page 262

2 The Opinion on Grid Price for Xuan'en Yuquan Hydropower Station issued by Hubei Price Bureau (E jia neng jiao han [2005] 89), issued on May 6, 2005. According to 'Letter of Approval from the NDRC on Time-Varying Power Price Scheme of Hubei Province' (Fa Gai Jia Ge [2004]107) which was issued to Hubei Price Bureau on Jan.19, 2004. As the description in this document, hydropower stations whose installed capacity is above 50MW should carry out peak-valley grid price. So the peaking adjusting grid price for the project with 16MW can't approved by the Hubei Price Bureau, thus the peaking adjusting revenue can't obtained by the project

3 Appendix 3 of PDD requesting for registration

4 Commission Intent Letter signed by the project owner on July 11, 2005

5 Approval on Starting construction issued by Hubei Water Resource Bureau on August 1, 2005

6 Commission letter signed on August 18, 2005

7 LoI was signed on November 30, 2005 by the project owner and November 24, 2005 by ENEL Trade SpA

8 Meeting reform published on newspaper

cember 2006. At the same time, the due diligence has been completed, on November 3, 2006, the project owner signed ERPA, and ENEL Trade SpA signed ERPA on February 13, 2007[9]. And then ENEL Trade SpA started to look for DOE for the project's validation, after serious investigation, the DOE has been consigned. During this period, the preparation work on PDD for GSP has been started by the CDM advisor. Then in September 2007 ENEL Trade SpA contacted DOE in order to receive an offer proposal for the validation activity and in the same month ENEL Trade SpA confirmed the validation to DOE, and the on-site validation was carried out in November 2007. Therefore, the project owner kept continuing and real actions on CDM application in parallel with the implementation of the project. From then on, the process of CDM application was going on smoothly.

Therefore it is clear that the project owner has fully considered the revenues from CDM when making the decision to proceed with the project activity. The main events related to the consideration of CDM in the decision to proceed with the project activity are illustrated in the table below.

Table Overview of key events in the development of the project

Date	Key Events
April 2005	Preliminary Design Report was completed
May 27, 2005	The project owner has started to known CDM and made a management decision that the project should apply CDM
June 2005	Submit an application to local government to support them applying CDM and get approval in the same month. At the same time, start of discussions between Project owner and CDM advisors on CDM application
July 11, 2005	The project owner signed Commission Intent Letter to CDM advisor
June 14, 2005	Approval of Preliminary Design Report
August 1, 2005	Approval of start construction
August 18, 2005	Project owner signed Commission Letter with CDM advisor and started preparation of CDM application
November 2005	Project owner signed Letter of Intention (LoI) with ENEL Trade SpA
November 17, 2005	Signed purchases contract of generators and turbines
May 19, 2006	Stakeholder meeting was held
November 3, 2006	The project owner signed ERPA
November 9, 2006	Got the approval from the China DNA website
December 13, 2006	Received LOA from China DNA
February 13, 2007	ENEL Trade SpA signed ERPA
October 27, 2007	Starting date of GSP PDD
November 2007	On-site validation
March 2008	Received LOA from The Netherlands

[9] ERPA was signed by the project owner on November 3, 2006 and by ENEL Trade SpA on February 13, 2007

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Response by TÜV SÜD:

The DOE has performed during the validation an on-site assessment in order to verify the original documentation and evidences behind the statements presented in the PDD. The timeline of the events has been also object of investigation and each of the main events related to the implementation of the project under the CDM has been substantiated by key evidences.
The following table shows how each of the key events has been evidenced, focusing the attention on the CDM related events:

Date	Key event	Evidence	Comment and relevance in the CDM context
A Preliminary Design Report was on April 2005 by the Enshi Tujia and Miao Autonomous Prefecture Water Conservancy and Hydropower Survey Design Institute.			
27 May 2005	The project owner started to know about the CDM and made a management decision.	Minute "The 3rd Directorate Meeting in 2005 by Xuan'en Zhongneng Hydropower Development Co., Ltd." **(IRL28 – Evid_A)**	According to the minute of the meeting, the project owner, based on the available information, decided to apply for CDM.
8 June 2005	The project owner submitted an application to the local government asking support for the CDM application.	CDM Application for "Yuquan 16MW Hydro-Electric power Station Project", by Xuan'en Zhongneng Hydro Power Development Co., Ltd dated June 8, 2005 **(IRL29_Evid_B)**	The document demonstrate that, in coherence with the decision taken, the project owner took action in order to receive support from the local government for the CDM application.
On June 14th, 2005, the Preliminary Design Report got the Approval form the local government.			
25 June 2005	The project owner got approval and support form the local government for the CDM application.	Letter "The Evaluation on Xuan'en Yuquan Hydropower Station by Hubei Xuan'en People's Government" **(IRL30_Evid_C)**	The document, issued by the Xuan'en People's Government, provide a demonstration that at the time the local government was informed and involved in the CDM process.
11 July 2005	The project owner signed the Commission Intent Letter to the CDM advisor	Clean Development Mechanism Project Commission Intent Letter **(IRL—Evid_D)**	The letter, prepared and signed by the project owner, inform the CDM advisors of the interest to reach an agreement for CDM development commissioning.

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On August 1st, 2005, the project got the starting construction approval			
18 August 2005	The project owner consigned a CDM consulting company to complete the CDM application work for the project.	Letter of Commitment for CDM Application **(IRL32-Evid_E)**	With this document the project owner have demonstrated to have a strong commitment to proceed with the application for the CDM by assigning it to a specialized company (namely and hereafter "TQ Power").
On November 17th, 2005, the purchase contract for the main equipment (turbine and generator) was signed			
24 and 30 November 2005	A Letter of Intent related to the purchase of the emission reductions generated by the project was signed by the buyer and the project owner respectively.	Letter of Intent for Emission Reductions arising from Renewable Energy Projects in the PRC **(IRL35-Evid_F)**	The document provide evidence of the first contact with a potential CERs buyer. It also represent an important evidence of the real action taken and of the strong commitment to finalize the project as a CDM.
19 May 2006	Stakeholders meeting was held.	Notice issued on 13 May 2006 on the Enshi Evening Paper **(IRL26)**	The evidence demonstrates that TQ Power started to be actively involved in developing the project as a CDM.
After having attended the meeting, the buyer started a due diligence on the project. It's confirmed that this is a common practice for ENEL Trade SpA (the buyer) which, in order to minimize the risks, is used to perform such due diligences before sign any Emission Reductions Purchase Agreement (ERPA).			
3 November 2006	The project owner signed the ERPA	ERPA (first and last pages) **(Evid_G)**	The document provide evidence that, at the time, an ERPA was prepared for the proposed project and that the path to the CDM was proceeding.
The project got approval form the Chinese DNA on November 9th, 2006.			
13 December 2006	The project received a Letter of Approval (LoA) from the local DNA	LoA **(IRL33)**	The LoA was issued by the Chinese DNA. This is an essential step in the context of the CDM application.
13 February 2007	The buyer signed the ERPA	ERPA (first and last pages) **(Evid_G)**	With the signature of ENEL Trade SpA, the Emission Reductions Purchase Agreement, took legal effect.

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The period of time between mid February 2007 and October 2007 was employed by the PPs to prepare the PDD for GSP. The project was assigned to the DOE for the validation on September 2007 and the validation started on October 27th 2007, according to the starting date of the GSP (publication of the GSP-PDD). The on site assessment was performed by TÜV SÜD on 4th November 2007.

According to the timeline of the events as evidenced during the on-site audit and as confirmed with this further assessment, the DOE is confident that the information given is correct and in compliance with the actual situation and project history. All the above mentioned key events have been substantiated by verifiable documents and evidences (pls. see attachments to this response, Evid_A to Evid_H).
It should be further noted that, according to the timeline, the main bureaucratic steps to secure the CDM application were completed on February 2007. Nevertheless, according to the above, it's confirmed that continuous and real actions were taken by the PPs to secure the CDM status for the proposed project activity.

Issue 2:
The DOE should clarify how the investment analysis was validated as appropriate, in particular: (a) the basis for the assumed tariff in the FSR and whether the change in tariff is not considered to be an E+ policy, according to EB 22, Annex 3, para. 6; and (b) as replication of the calculations in the spreadsheet provided indicates that applying the tariff used in the FSR yields an IRR that is different from what was obtained in the FSR.

Response by the Project Participants:
(a) The basis for the assumed tariff in the PDR and whether the change in tariff is not considered to be E+ policy, according to EB 22, Annex 3, para.6

Background
EB 22, Annex 3, para.6
The Board agreed to differentiate the following two (2) types of national and /or sectoral policies that are to be taken into account when establishing baseline scenarios:
(a) National and/or sectoral policies or regulations that give comparative advantages to more emission-intensive technologies or fuels over less emissions-intensive technologies or fuels[10];
(b) National and/or sectoral policies or regulations that give comparative advantages to less emission-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programs[11]).

- The basis for the assumed grid price in the PDR is financial internal rate of return (IRR) of 10% and fixed assets investment loan repayment period[12]. Therefore the grid price in the

[10] So called type E+, policy that increase GHG emissions
[11] So called type E-, policy that decrease GHG emissions
[12] According to the SL16-95 regulation page 17, main financial evaluation indexes refer to financial internal rate of return (IRR), and repayment period of fixed assets investment loan. Auxiliary indexes refer to financial net present value and financial net present value ratio. When the calculated IRR and repayment period of fixed assets investment loan both meet the standard, the financial evaluation would be considered feasible. Therefore, the financial internal rate of return (IRR) of 10% and fixed assets investment loan repayment period are used to assume the grid price in the PDR.

PDR is only a calculated grid price and not official grid prices based on any policy.

The change in grid price is not considered to be E+ policy based on the following reasons:

- The Preliminary Design Report (PDR) was completed by Enshi Tujia-Miao Autonomous Prefecture Investigation, Design and Research Institute of Water Conservancy and Electric Power in April 2005. In PDR, the IRR was calculated based on reverse calculated grid price of 0.386Yuan RMB/kWh (including VAT) and the peak adjusting grid price which is 1.8 times of the grid price, which are only a calculated grid price and not official grid prices based on any policy. As the description in the document published by Hubei Price Bureau- the grid price of project in the operation period will not exceed 0.36Yuan RMB/kWh (including VAT). After the project has been finished construction and the connection to the grid has been confirmed, the project owner should calculate the grid price formally according to the current gird price policy, and applied for approval of the real grid prices. So the grid price of 0.36Yuan RMB/kWh (including VAT) isn't the final grid price but an instructional and proposed highest grid price. In addition, the change in grid price from 0.386Yuan RMB/kWh to 0.36Yuan RMB/kWh is only for the proposed project and it is not applicable to other projects. Therefore, the reason for the change in grid price from 0.386Yuan RMB/kWh to 0.36Yuan RMB/kWh is basically not a policy. And it is difficult to compare the reverse calculated grid price of 0.386Yuan RMB/kWh and proposed highest 0.36Yuan RMB/kWh, because the grid price of 0.386Yuan RMB/kWh is not the existing grid price and the grid price of 0.36Yuan RMB/kWh isn't a real grid price of the project.

- The project owner calculated the grid price formally after the construction was finished and applied for approval, and the actual grid price of 0.35Yuan RMB/kWh (including VAT) during the whole operating period[13] was approved by Hubei Price Bureau on November 4, 2008 based on the document published by NDRC on June 29, 2008[14].

Therefore the change in grid price can't be considered as E+ policy.

(b) As replication of the calculations in the spreadsheet providing indicates that applying the tariff used in the PDR yields an IRR that is different from what was obtained in the PDR

The reason is as following:

- In PDR, based on the reverse calculated grid price of 0.386 Yuan RMB/kWh (including VAT) and peaking adjusting revenues, the IRR is calculated to be 10.7%. Then in the spreadsheet uploaded for registration, the grid price of 0.36 Yuan RMB/kWh (including VAT) was adopted (refer to response to issue 2(a)) and the peaking adjusting grid price can't be obtained (refer to footnote 2), thus the IRR is 6.73% in PDD. Therefore the difference comes from the peaking adjusting revenues which were counted in the PDR but not in the excel spreadsheet uploaded for registration.
- When the grid price of 0.386 Yuan RMB/kWh (including VAT) and the peaking adjusting revenues are both adopted to calculate IRR, the result is 10.63%[15], a little difference with the value in the PDR, and the reason is rounding of decimal fraction during calculation in PDR and that in IRR of PDD.

[13] The Approval on Grid Price for Xuan'en Yuquan Hydropower Station issued by Hubei Price Bureau (E jia neng jiao han[2008] 109), issued on November 4, 2008

[14] National Development and Reform Commission Circular on Grid Price Adjusting of Central China Power Grid (Fa gai jia ge [2008] 1681), issued on June 29, 2008. As the description in the document, the grid price for power plants in Central China Power Grid has been adjusted since July 1 2008 for the new projects, for the purpose of alleviating the operation difficulties for power companies, ensuring the power supply and saving resources.

[15] The spreadsheet applying for the same indicators as that in PDR

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Response by TÜV SÜD:

(a) It's confirmed that the grid price in PDR was reversely calculated according to the rules defined in the SL16-95 regulation. The base of this price is therefore the regulation itself, which define the financial internal rate of return (IRR) of 10% and fixed assets investment loan repayment period to obtain the grid price indicated in the PDR.The change in tariff is not considered to be an E+ policy according to EB 22, Annex 3, para 6. It is TÜV SÜD's understanding that above mentioned clarification refers to the establishment of baseline scenarios. In this regard the methodology ACM0002 clearly defines the baseline scenario of a new grid-connected renewable power plant/unit as: "Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". Given above circumstance we conclude that a change in tariff does not influence the establishment of the baseline scenario.

(b) The reason for this difference was found by the DOE during the validation and has been re-confirmed now though a further assessment. Given that, with the exception of the assumed grid price, all the other input values used in the investment analysis have been taken from the PDR, has been requested to clarify why a replication of the calculation in the spreadsheet provided, using the same grid price as in the PDR, does lead to an IRR which is different from the one calculated and presented in the PDR.

The origin of this apparent inconsistency is that the spreadsheet used for the IRR estimation does not include, differently form the PDR, the extra revenue of the "peaking adjustment revenues". It should be noted that aim of these price fluctuation is to balance and regulate the power supply and the demand for power throughout the 24 hours. In particular, the price is subject to an increase (e.g.:180%) during the hours of the day in which the demand for power is high (peak period) and to a decrease (e.g.: 48%) during less demanding periods (valley period).

The Preliminary Design Report mentioned and included the policy of the "peaking adjustment revenues" while calculating IRR. These revenues were estimated to be 288.54 ten thousands Yuan RMB as evidenced by the relevant section of the report itself.

However, as the matter of fact, these additional revenues would not have been actually applied to the proposed project activity. This non-applicability find its confirmation in a regulation issued by the Hubei Price Bureau on May 6th, 2005 (**IRL14**) which explicitly mentions for the proposed project that the grid price will not exceed 0.36 Yuan RMB/kWh (including VAT), thus excluding an increase of the price above the one supposed to be at the time of the CDM decision. To further confirm that the proposed project could not benefit of the peak adjustment of the price the DOE has verified the origin of such a policy to verify its applicability criteria: the regulation behind the policy of the peak adjustment of the prices has been issued on January 19th, 2004 by the National Development and Reform Commission with the "Letter of Approval from the National Development and Reform Commission on Time-Varying Power Price Scheme of Hubei Province"; the document clearly states that the peak-valley prices fluctuation is only applied to the hydropower stations whose installed capacity is above 50MW. The installed capacity of the proposed project (16 MW) allow to confirm that the applicability criteria is not met and that, according to the above mentioned regulation, no fluctuation of price was to be included to conduct the investment analysis. Definitely, evidence of the document has been checked leading the DOE to consider this regulation as a reliable base for confirming the exclusion of the peaking adjustment revenues as consistent with the actual situation and project context.

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Issue 3:

The DOE should clarify how the common practice analysis was validated, in particular the lower limit of the capacity range for similar projects as the capacity of the project activity is 16 MW, since a range between approximately + and - 50% (e.g. 10 and 25 MW) would have been more appropriate.

Response by the Project Participants:

According to the latest version (Version 05.2) of "*Tool for the Demonstration and Assessment of Additionality*", projects are considered "similar" in case they, amongst others, are of "similar scale". We have excluded projects with an installed capacity above 50MW (excluding 50MW) as the scale of these projects differs significantly from the scale of the project activity (i.e. 16MW). 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 station projects in China, which is the official classification of the Chinese government:

- Large scale hydropower stations include hydropower stations with installed capacity more than 300MW (including 300MW);
- Middle scale hydropower stations include hydropower stations with installed capacity between 50MW and 300MW (including 50MW and excluding 300MW);
- Small scale hydropower stations include hydropower stations with installed capacity between 0.5MW and 50MW (including 0.5MW and excluding 50MW).

2) The small scale hydropower industry benchmark "*Economic evaluation code for small hydropower projects* (SL16-95)[16] 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 50MW according to the SL16-95 regulation.

These Chinese policies and regulations (different standards/benchmarks) influence the feasibility of hydropower stations below and above 50MW in a different manner, besides the difference in scale and size, which naturally exists. All Chinese policies and regulations (different standards/benchmarks) are applicable to total installed capacities of hydropower stations (individual unit capacity of turbine or generator is not considered). The total installed capacity of the project activity is 16MW and we conclude that it is reasonable to exclude hydropower stations above 50MW as they are not similar in scale in China. For the projects of installed capacity below 15MW are the small-scale projects which aren't considered in common practice analysis, so the capacity range from 15MW to 50MW applied for common practice is reasonable and conservative.

Response by TÜV SÜD:

[16] 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, reference website: http://www.cnhydro.com/techstandard/09.htm, and the Water Resources and Hydropower Planning and Design General Institute of the Ministry of Water Resources of the People's Republic of China confirm that it is still in effect in 2008, reference website: http://www.giwp.org.cn/index.do?act=mess&modu=160&mess=361

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The exclusion of hydropower plants consisting of installed capacities above 50 MW 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 exclusion from the analysis of projects below 15 MW relies on the lack of reliable data for these small and micro power plant in China. The range chosen (15 MW to 50 MW) for the common practice analysis it's therefore confirmed to be appropriate and supported by reasonable argumentations and verifiable documents.
According to the latest EB guidance available at the time of the submission for registration (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.