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Request for Review

Dear Sirs,

Please find below the response to the review formulated for the CDM project with the title “Shanshuping 12 MW Small Hydropower Project in Sichuan Province, China” with the registration number 1810. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Abhishek Goyal
Carbon Management Service

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Response to the CDM Executive Board

Issue 1

The DOE shall clarify how it has validated that the input values used in the investment analysis are appropriate in the economic context of the underlying project activity and taking note of the guidance provided in EB 38 paragraph 54. In doing so, the DOE shall cross check the estimated input values (based on PDR) with the actual contracts, invoices and payments made already.

AND

Issue 2

The DOE shall explain how they have validated average tariff of 0.222 Yuan/ KWh to be appropriate where as the PDD (p10) and spread sheets apply nine different tariffs. The DOE shall also explain the basis of why the tariffs are assumed to be fixed for the entire IRR period.

AND

Issue 3

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, Annex 46, EB 41.

Preliminary remark by TÜV SÜD:
The annexes referred to by the PP and TÜV response have all been checked by the DOE and have been listed in a revised validation report. To keep the order of numeration, some evidences may now be listed twice in this revised reference list.

Attachement:

Enclosure 1 - Annex 30-Proof for serious consideration of CDM in March 2006-CHN+ENG.pdf

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Referring to Issue 1

Response from the Project Participant

1. As for accordance with the paragraph 54 of EB 38:

The input data in the investment analysis are from the PDR (**Annex 1**) and "the Supplementary Explanation about the Preliminary Design Report of the proposed project"**(Annex 3)** which are completed by Sichuan Province Qingyuan Engineering Consulting Co. Ltd on 1st March 2006 and on 10th March 2006. The PDR was approved by Ganzi Tibetan Autonomous Prefecture Development and Reform Commission on 14th June 2006(**Annex 2)**. The serious CDM consideration was undertaken on 13th March 2006, and the sign of the water turbines and generators was 25th April and the commencement of the project construction was 11th September 2006. Thus the period of time between the design report completion and the investment decision was one and a half months which is sufficiently short.

For the input data in the investment analysis, the Total Static Investment **(RMB million Yuan)**: 75.5271million yuan is the sum of the following:

- **65.5108 million yuan for electricity generation**: from page 15-28 of the PDR;
- **10.0163million yuan for electricity connection:** from "the Supplementary Explanation about the Preliminary Design Report of the proposed project" which was designed and completed by Sichuan Province Qingyuan Engineering Consulting Co. Ltd on 10th March 2006. It can be cross checked by "the Total Budgetary of the PDR for 35kV Electricity Transmission Part"(**Annex 4**) which was designed and completed by Sichuan Province Qingyuan Engineering Consulting Co. Ltd in July 2006 which was approved by Sichuan Province Power Grid on 26th November 2007**(Annex 5)**. Annex 5 and Annex 20 prove that the project owner shall bear the costs of the electricity connection.

All other values used are consistent with the PDR.

2. The input values used in the investment analysis of the PDD and cross check:

The project is still under construction now thus the final assessment on the actual investment hasn't be conducted. There is no actual invoice for electricity price or electricity amount either. However, the input data in the investment analysis can be verified and cross checked through the following:

parameters	**Values**	**Data source**	**Cross check**
Total investment	RMB75.5271million yuan	PDR and "the Supplementary Explanation about the Preliminary Design Report"	According to the Paper of "**Strengthening the Study on the Hydropower Project Cost to Ensure the Essence Safety of Construction Project**" published in March 2007(**Annex 6**), it is said that "from 1995 to 2000, the average hydropower project cost is more than 7000 Yuan/kw, Between 2001 and 2005,the average hydropower project cost is 7992 Yuan/kw, and at present, the investment per kW is high up to 8000yuan/kW." The investment per MW of the proposed project is 6294Yuan/kW which is lower than the average level in China.

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			From the actual investment situation: ● According to the Report on the Loss and Treatment Measures due to the Mud-rock flow Disaster occurred on 24th June 2008 which was issued by the Supervision Entity of the proposed project (Sichuan Chengdu Kejian Water Resource Civil Supervision Co.Ltd), because of the Mud-rock flow Disaster occurred on 24th June 2008, the related loss was high up to 2.6734million yuan, which also increased the the total investment by 3.5% (shown in Annex9). Thus it is quite unlikely that the total investment will decrease.
Installed capacity (MW)	12MW	Page 15-1 of PDR	cross-checked by the *Water turbines and generators purchase agreement* for the project
Estimated generated electricity (MWh)	57,320MWh	PDR	cross-checked by **Hydrological Analysis of the proposed project in the *PDR****(Annex 10)*,: According to the **Hydrological Analysis of the proposed project in the *PDR(Annex 10)***, the hydrological condition for the proposed project is based on the **Jiulong Hydrometric Station and Wulaxi Hydrometric Station** as long as decades of years. Based on the basic hydrological information, the flux regulation was calculated, and the best scheme of the normal water level, the best scheme of dead water level, and the best scheme of the installed capacity and the best scheme of operation hours were decided and chosen from alternative schemes. Then the Electricity was decided.
The effective electricity (MWh)	50,440MWh	PDR	The effective rate is from ***Economic Evaluation Code for Small Hydropower Project***s issued by the Ministry of Water Resources (MWR)(SL 16-95).**(Annex 11)**
Project operation lifetime (year)	31□three years of construction and 28 years of operation□	PDR	Project owner's expectation and PDR
O&M cost (RMB million Yuan)	71.0984 RMB million Yuan of the total of the whole operation years	PDR	According to PDR, it consists of the maintenance repairs cost, workers wage and benefit cost, the fee for water resource use, insurance cost and other cost, each of the above cost is decided and calculated by some fixed rates. These rates of the calculation were decided by the related guidelines of governments such as ***Economic Evaluation Code for Small Hydropower Project***s issued by the Ministry of Water Resources (MWR)(SL 16-95) in 1995**(Annex 11)**
Value Added Tax (VAT) Rate	17%	PDR	Can be cross checked by Status of State Department Guowuyuanling No.134(**Annex 12**)

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City building and maintenance tax rate	5%	PDR	Can be cross checked by Guofa[1985]No.19(**Annex 13)**
Surcharge for education	3%	PDR	Can be cross checked by Status of State Department, Guowuyuanling No.448(**Annex 14**)
Income tax rate	33%	PDR	Can be cross checked by Status of State Department, Guowuyuanling No.137(**Annex 15**)
Tariff (excluding VAT)	There are nine levels of tariff due to different seasons in the year and different time in the day (the weighted average tariff is 0.212 Yuan/kWh, and its detailed calculation is shown in **Annex 16**)	PDR	It was based on "**Notification of "the Temporary Guideline for the Electricity Tariff at the peak/valley during plentiful/dry water season in Sichuan Province Power Grid**" (**Annex 17**). The electricity tariff of Average water season in the year, Even hours in the day 0.222RMB/kWh Yuan referred to the electricity tariff of a operated hydropower plant nearby 0.22RMB Yuan/kWh. (**"Notification of the Tariff of Dongxing Hydropower Station in Dujiangyan City approved by Chengdu City Price Bureau Sichuan Province on 14th July 2004",** shown in **Annex 18)**. The detailed explanation for the tariff is shown in the following **Issue2.**
			It is in the average level in Sichuan province and in Central China Power Grid which was checked by DOE through comparison with other CDM projects in the similar area. A list of tariffs for CDM projects in Sichuan Province from the website of UNFCC is shown in Annex 19, the tariff of the proposed project in the PDR is near to or higher than them in the list table in **Annex 19.** So the electricity tariff for the project is reasonable.

Response by TÜV SÜD

The input data in the investment analysis is taken from two sources:

1) The preliminary design report (PDR), prepared by *Sichuan Qingyuan Engineering & Consulting Co., Ltd dated March 1, 2006 (Information reference List of validation report "IRL"15).*
2) *The supplementary explanation about the Preliminary Design Report(Supplement PDR), prepared by Sichuan Qingyuan Engineering & Consulting Co., Ltd made, dated March 10 2006 (IRL16).*

In accordance with §54 a the DOE can confirm that the time between the completion of these feasibility studies and commencement of the project activity is sufficiently short to confirm that it is unlikely in the context of the underlying project activity that the input values would have mate-

rially changed. The time between completion of the preliminary design reports (beginning of March 2006) and the projects start date, the date when the purchasing contract for the turbines was signed (25th of April 2006) is only about 6 weeks. Further, in the meantime CDM was seriously considered as could be evidenced on March 13, 2006 (IRL17, refer also to response to issue 3 below).Therefore, TÜV SÜD can confirm that the results of PDR were the basis of the decision to proceed with the investment in the project and that the requirements of part (a) of the EB38, §54 are fulfilled successfully.

As mentioned above, the majority of the input values were derived from the PDR (i.e. installed capacity, estimated generated electricity, effective electricity, project life time, O&M costs, various tax rates, electricity tariff) and a *Supplement PDR* (i.e. total investment).

The only deviating key input parameter from PDR is thus the total static investment, which is revised taking into account the governmental guidance to incorporate the costs incurring for the electricity connection. The total static investment amounting 75.5271 million Yuan is composed of:

- 65.5108 million Yuan, in accordance with the static investment as per PDR
- 10.0163 million Yuan for the electricity connection, in accordance with the Supplement PDR dated March 10th, 2006 and in accordance with the Total Budgetary of the PDR for 35kV Electricity Transmission Part (as part of the Preliminary design of the electricity connection, which was designed and completed by Sichuan Province Qingyuan Engineering Consulting Co. Ltd in July 2006 and approved by Sichuan Province Power Grid on 26th November 2007

It could be confirmed that the PP bear the costs of the electricity connection by “The Total Budgetary of the PDR for 35kV Electricity Transmission Part” (as part of the Preliminary design of the electricity connection), which was designed and completed by Sichuan Province Qingyuan Engineering Consulting Co. Ltd in July 2006 and approved by Sichuan Province Power Grid on 26th November 2007; the approval re-confirms that the PPs shall bear the costs of the electricity connection.

In summary, TÜV SÜD confirm that the applied total investment is appropriate and valid and was also well known at the time of the investment decision, hence the requirements of part (b) of the EB38, §54 are also completely fulfilled for this project.

In addition, TÜV SÜD performed a thorough evaluation and review of the values of the input parameters applied for the investment analysis for this project. As part of this evaluation, TÜV SÜD checked the credibility and plausibility of the input data by comparing the applied values with TÜV SÜD’s internal statistical results of the evaluation of 250 hydropower projects in China that are either already registered or currently under validation.

Investment costs were calculated at approximately 6.29 Mio RMB/MW, which are slightly lower than the average cost of 6.7 Mio RMB/MW, but still within a range of plus one standard deviation from the average. Although the project is currently still under construction, and is not expect to be operational before late 2008, there are indicators that the investment costs spent so far on the project are actually higher than estimated, which could be demonstrated by Report on the Loss and Treatment Measures due to the Mud-rock flow Disaster occurred on 24th June 2008 which was issued by the Supervision Entity of the proposed project (Sichuan Chengdu Kejian Water Resource Civil Supervision Co.Ltd), indicating that costs increased by about 2.6 Mio RMB (3.5%). Hence, the applied value for the investment costs can be considered as conservative in the CDM/additionality context.

Annual O&M costs equal about 3,4% of the total investment costs, and are thus only slightly higher than the average of 2.5% based on TÜV SÜD's internal statistics, and were therefore considered as also appropriate and realistic. Further it is taken note of the remote location of the plant, which justifies the higher O&M costs.

The plant is estimated to operate about 4776 hours per year, resulting in a load factor of approximately 55%, which is above the average observed operating hours (i.e. 44%). The annual power supply was calculated based on long-term flow date. This rather high load factor can be seen as conservative in the CDM/additionality context

A gross average tariff of 0.212 RMB/kWh was applied, which lies also well within proximity of the average observed tariff (i.e. 0.24 RMB/kWh). For more details on the assessment of the tariff, please refer to response to issue 2 below.

In summary, TÜV SÜD checked the applied values thoroughly and based on its local and sectoral expertise, TÜV SÜD confirms that these values are realistic and plausible and appear to be valid at the time the investment decision was made. Hence, criteria (c) of EB38, §54 is also fulfilled successfully.

In conclusion, TÜV SÜD conducted a careful assessment of these parameters and assumptions used in the IRR calculation and therefore confirms that the applied values were accurate and also suitable on the basis of the provided evidences as well as on TÜV SÜD's expertise in this sector.

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Referring to issue 2

Response from the Project Participant

1. First of all, in the PDD submitted to EB for registration, there are nine tariffs and 0.222 yuan/kWh (excluding VAT) was one of them as the representative of the tariff of the normal period during average water season. As for the weighted average tariff as 0.212yuan/kWh (excluding VAT), the detailed calculation is shown in **Annex 16.**
2.Secondly, according to the expected tariff in the PDR, there are nine levels of tariff due to the different seasons (plentiful water season, average water season, dry water season) in the year and different time(peak hours, valley hours and even hours) in the day. The source of implementation of different tariffs at the peak/valley during plentiful/dry water season in Sichuan Province in the PDR was cited from the Notification of "the Temporary Guideline for the Electricity Tariff at the peak/valley during plentiful/dry water season in Sichuan Province Power Grid" which issued by National Planning Commission in September 1998. And this guideline has been effective and implemented for ten years in Sichuan Province. (Shown in **Annex 17**) The nine tariffs were based on the tariff of the normal period during average water season. So, the tariff of the normal period during average water season was firstly confirmed, and after its confirmation, other eight tariffs were calculated based on it through multiplying the comparison. The **comparisons** based on the tariff of the normal period during average water season were tabled as follows:

Items	Plentiful water season in the year(from June to October, five months)	Average water season in the year(May and September, two months)	Dry water season in the year(from December in the former year to the April in the latter year, five months)
Peak hours in the day(from 7:00am to 11:00am and from 19:00pm to 23:00pm, eight hours)	1.001	1.335	2.003
Even hours in the day(from 11:00am to 19:00pm, eight hours)	0.75	1.000	1.500
Valley hours in the day(from 23:00pm in the former day to the 7:00am in the latter day, eight hours)	0.375	0.500	0.750

In the PDR, the tariff of the normal period during average water season was reasonably evaluated as 0.222yuan/kwh (excluding VAT). The tariff is determined based on the **Notification of the Tariff of Dongxing Hydropower Station in Dujiangyan City approved by Chengdu City Price Bureau Sichuan Province on 14th July 2004(**shown in **Annex 18)**. In this Notification, it was said that according to the **Notification of "the Temporary Guideline for the Electricity Tariff at the peak/valley during plentiful/dry water season in Sichuan Province Power Grid**"(**Annex 17**) which issued by National Planning Commission in September 1998, the tariff of Dongxing Hydropower Station was divided to different nine tariffs at the peak/valley during

plentiful/dry water season, the tariff of the normal period during average water season for Dongxing Hydropower Station was as 0.22yuan/kwh, based on this tariff, other eight tariffs was decided for Dongxing Hydropower Station. So when doing the PDR design for the proposed project, the tariff of the normal period during average water season was reasonably evaluated as 0.222yuan/kwh.
Therefore other eight **tariffs** were calculated as follows:

Items	Plentiful water season in the year(from June to October, five months)	Average water season in the year(May and September, two months)	Dry water season in the year(from December in the former year to the April in the latter year, five months)
Peak hours in the day(from 7:00am to 11:00am and from 19:00pm to 23:00pm, eight hours)	0.222*1.001=0.2222	0.222*1.335=0.296	0.222*2.003=0.444
Even hours in the day(from 11:00am to 19:00pm, eight hours)	0.222*0.75=0.166	0.222*1.000=0.222	0.222*1.5=0.332
Valley hours in the day(from 23:00pm in the former day to the 7:00am in the latter day, eight hours)	0.222*0.375=0.083	0.222*0.5=0.111	0.222*0.75=0.166

3. **Thirdly**, according to the approval documents by Sichuan Province, **Annex 23, 24 and 25**, the approved tariff issued in year 2004 for year 2003 in the Annex 23 is 0.24479yuan/kWh (including VAT) which was equal to 0.209yuan/kWh (excluding VAT, VAT is 17%), and the approved tariff issued in year 2005 for year 2004 in the Annex 24 is 0.2501yuan/kWh(including VAT) which was equal to 0.214yuan/kWh (excluding VAT, VAT is 17%), and the approved tariff for year 2006 in the Annex 25 is 0.288yuan/kWh(including VAT) which was equal to 0.246yuan/kWh (excluding VAT, VAT is 17%). And in year 2007 and 2008 there are not updated tariff approval letter, so there is no increase from 2006 to 2007 and 2008 and the tariff stays at 0.288yuan/kWh(including VAT) which was equal to 0.246yuan/kWh (excluding VAT, VAT is 17%). Therefore, from year 2003 to year 2008 and in the six years, the increase rate for the tariff in the last five years is only 0.72%.
However, according to **Annex 26**, the labor cost in China has increased by 18% recently, and according to **Annex 27**, the price of raw materials and fuels and power has increased by 11.1% recently. It means that the annual O&M cost increased more than the electricity tariff. In other words, a general price index increase (called inflation) affects all relevant cash flows of the project scenario. It has been shown based on past experience that the project's cash outflows are faced by a bigger inflation than the cash inflows (the electricity tariff in particular) and thus, if at all, the electricity tariff would have to be adjusted downwards over the years, in a nominal financial analysis. With this an increase of only the electricity tariff is unrealistic

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Response by TÜV SÜD

There are nine different tariffs that are applied depending on the time of the year and also on the time of the day (i.e. peak time, off-peak-time and valley time as well as high flow, mean flow and low flow period). These tariffs range from 0.083 to 0.444 RMB/kWh (excluding 17%VAT). These tariffs were derived from a base net tariff of 0.222 RMB/kWh that was applied for "the "mean-flow period" and "off-peak-time situation", which is considered as the situation that lies in the middle of the range of the various situations (i.e. from valley time, low flow period to peak-time, high flow period). The tariffs for the other situations were derived based on this tariff.

By calculating the amount of electricity that will be generated during the various time periods and how much money is expected accordingly, an average tariff of 0.212 RMB/kWh could be calculated. This tariff is based on a one year calculation. The higher base tariff of 0.222 RMB/kWh was applied for the investment analysis for the proposed project activity. Hence, the applied tariff of 0.222 RMB/kWh appears to be valid and conservative and also realistic for this project. Altogether it can be concluded that the assumptions are reasonable.

The tariff assumption can further be considered as conservative when comparing the applied base tariff of 0, 222 RMB/kWh to other projects located in Sichuan province. Most of these projects have tariffs below 0.20 RMB/kWh. TÜV SÜD thus concludes that the applied base tariff can be seen as conservative approach.

As described by the PP, and as taken from information/news about the current economic development in China it can be supported that an actual governmental tendency of tariff regulation is difficult to forecast. Thus, the calculations made has been validated and accepted as a very close estimation of a potential reality used to assess and justify the project activity assumptions.

It can assumed that, even taking into account a continuous increment of the grid price and the operation & maintenance costs, that the electricity price increment is always lower than the increment of other costs as presented in the response of the PP. Using the increment of 0.72% for the tariff (derived from the last 5 years available policy in the projects region), and a much higher increment of the O&M costs (e.g. labour costs in China are increasing at a rate of 18% recently it can be seen in this context as conservative approach to apply a constant tariff in the financial analysis of the project.

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Referring to Issue 3

Response from the Project Participant

The background of knowledge and contact of CDM by the project owner: On 23rd August 2005, the CDM manager of the proposed project participated in the International Seminar of CO_2 emission reduction technology which was held jointly by TsingHua University and Stanford University. In the meeting, the CDM Manager discussed at length about CDM with Professor in Global Climate Change Research Institute of Tsinghua University. On 5th January 2006, the design institute of the proposed project—Sichuan Qingyuan Engineering & Consulting Co., Ltd signed a *Framework Agreement on CDM Project Development* with Global Climate Change Research Institute of Tsinghua University.

According to the Preliminary Design Report of the proposed project designed and completed by Sichuan Province Qingyuan Engineering Consulting Co.Ltd on 1st March 2006 and "the Supplementary Explanation about the Preliminary Design Report of the proposed project" by Sichuan Province Qingyuan Engineering Consulting Co.Ltd on 10th March 2006, the FIRR of the proposed project is much lower than the benchmark.
Based on this serious situation, **first of all, the design institute (Qingyuan Corporation) suggested the project owner to apply for CDM on 10th March 2006. After that, the project owner held the conference on CDM** and on preparation for the following procedures of the proposed project on 13th March 2006, In this meeting, according to "The supplementary explanation of the preliminary design ofYangfanggou Shanshuping Fourth Stage Hydropower Station", the investment of electricity transmission and transformation is relatively high and must be bear by the project owner required by Sichuan Electric Corporation. The economic benefit is poor which cannot reach the benchmark standard. Therefore, the shareholders discussed the corresponding solution of CDM during the conference. and they decided to follow the nearby Yidaoqiao hydropower station to actively consider CDM, and start CDM preparation work as soon as possible, including seeking and contacting the CDM Consult companies and seeking the CERs Buyer etc.

After that, in the Reply on review of Shanshuping Preliminary Design Report by Development, Plan and Trading Bureau of Jiulong County, Sichuan Province on March 27, 2006, **the government body encouraged the Shanshuping Project owner to actively resort to CDM.**

During financing raise, the project owner expressed he would like to development Shanshuping Hydropower project as a CDM project in order to overcome negative impact of low financial indicator, the investment bank **Agricultural Bank of China, Jiulong County Branch responded actively to encourage the project owner seize the good CDM opportunities** on April 12, 2006.

Based on the above primary serious consideration of CDM and the belief for CDM, the project owner started to choose the suitable equipments and signed the turbines and generators purchase agreement on 25th April 2006.

After several months' work, the EIA report was completed and the CDM consultation company was chosen, and on 6th August 2006, the stakeholders related to the proposed project held the stakeholders' meeting to discuss the detailed issues for the CDM development. All participates thought the condition of the proposed project applying for CDM was mature because of completion of the PDR and EIA and suggested the project owner starting to do the PDD design work.

Based on the above CDM consideration background and also because the EIA of the proposed project was approved by the Environmental Protection Bureau in Ganzi Tibetan Autonomous

State on 11th September, the proposed project was permitted to start construction by the supervision department of the power station.

After CDM project development by the project owner and consulting company for several months, the PIN and preliminary PDD of the proposed project has been completed in January, 2007.

The project owner started to contact with CERs buyers when the PIN and preliminary PDD completed. After negotiation and choosing, the project owner finally decided to signed CDM Emission Reductions Purchase Agreement with Carbon Asset Management Swenden AB on 31th, May, 2008

Based on the CDM preparation and development for several months, the proposed project was submitted to China DNA for review on 7th April 2007, and it has been approved by China DNA on 12th June 2006.

Then the proposed project was started GSP on the website of UNFCCC on 12th July.

The milestones and the related evidences especially related to the history of CDM consideration is as follows:

Year	Date	Milestone	Evidence/Remarks
2005	23rd August	The CDM manager of the proposed project participated in the International Seminar of CO_2 emission reduction technology which was held jointly by TsingHua University and Stanford University. In the meeting, the CDM Manager discussed at length about CDM with Professor in Global Climate Change Research Institute of Tsinghua University.	http://www.powerfoo.com/article/html/1125230598244.html and Annex 28
2006	5th January	The design institute of the proposed project—Sichuan Qingyuan Engineering & Consulting Co., Ltd signed a *Framework Agreement on CDM Project Development* with Global Climate Change Research Institute of Tsinghua University.	Shown in Annex 29.
2006	7th Feb.	"the approval about the connection of cascade hydropower stations in the main stream of Jiulong River to the power system" by Sichuan Electric Power Corporation□Chuandianji[2006]No.5□	this document shows: 1. The proposed project was connected to Yidaoqiao Power station through Shuidaba power station with voltage of 35kV; 2. the qualified design institute will be commissioned subsequently for design; 3. the investment of electricity transmission and transformation were bared by the project owner (shown in Annex 20).
2006	1st Mar.	Sichuan Qingyuan Engineering & Consulting Co., Ltd completed Preliminary Design Report (substi-	Chapter 15 (economic evaluation) of Preliminary Design Report, the investment did not include the electricity transmission and transformation part,

		tution of Feasibility Study Report)	the tariff and the annual operation hours were estimated optimistically compared to the actual situation. (shown in Annex 1).
2006	10th Mar.	Sichuan Qingyuan Engineering & Consulting Co., Ltd made "the Supplementary Explanation about the Preliminary Design Report of the proposed project"	The explanation mentioned that the budgetary estimation did not include electricity transmission and transformation, but according to "the approval about the connection of cascade hydropower station in the main stream of Jiulong River to the power system" by Sichuan Electric Power Corporation, the project owner of the proposed project actually needs to undertake the investment of electricity transmission and transformation. Therefore, Sichuan Qingyuan Corporation made the estimation of electricity transmission line project and its investment is preliminarily estimated to be near 10 million yuan. In the explanation, it was pointed out that tariff and the annual operation hours were estimated optimistically compared to the actual situation. Under this situation, the financial indicator of the proposed project is poor, lower than the benchmark standard. **Thus Qingyuan Corporation suggested the project owner to apply for CDM.** (Shown in Annex 3).
2006	13th Mar.	Shanshuping Corporation held conference on CDM and on preparation for the following stages	Based on "the supplementary explanation about the Preliminary Design Report of the proposed project" by Qingyuan Corporation and the actual investment undertaking and the actual situation such as operation hours and tariff, **the project owner decided to follow the nearby Yidaoqiao hydropower station to actively consider CDM, and start work as soon as possible, including seeking and contacting the CDM Consult companies and seeking the CERs Buyers etc.**. (Shown in Annex 30).
2006	27th March	Development, Plan and Trading Bureau of Jiulong County, Sichuan Province encouraged the project owner to resort to CDM	Shown in Annex 31
2006	12th April	the investment bank Agricultural Bank of China, Jiulong County Branch responded actively to encourage the project owner seize the good CMD opportunities.	See Annex 32
2006	25th Apr.	Sign turbine and generator ordering contract	Sign turbine, generator and other accessory ordering contract with Sichuan Dongfeng Electric Machinery Co., Ltd(Annex 33)
2006	14th Jun.	Development & Reform Committee in Ganzi approved the Preliminary Design Report(Annex 2)	
2006	Jun.	Purchase agreement for the main transformer and accessory signed	

2006	Jul.	The preliminary design of newly constructed Shanshuping Fourth Stage hydropower station-Yidaoqiao power station 35kV electricity transmission line	The estimated investment of electricity transmission and transformation of the proposed project was 10.0163 million yuan in this PDR for electricity connection.(Annex 4)
2006	Aug.	Completion of Environmental Impact Assessment (EIA) Report	EIA Report
2006	6th Aug.	"shareholders' conference summary of seminar for the proposed project"	Based on contacting with the consult company, and completing preliminary design report and EIA Report, prepare to further do the CDM work such as PDD writing preparation and applying for NDRC. .(Annex 7)
2006	10th August	The project owner finally found out a proper CDM project development consulting firm and signed a CDM Development contract with it.	CDM Development contract submitted to DOE(Annex 34)
2006	11th Sep.	"the approval of EIA Report of the proposed project" by the Environmental Protection Bureau in Ganzi Tibetan Autonomous State. (Annex 35)	
2006	30th Sep.	The starting construction order for project construction promulgated by the supervision department of the power station based on CDM consideration and all the approvals were acquired. (Annex 36)	
2007	January	PIN and the preliminary PDD were completed.	PIN and the preliminary PDD.
2007	7th April	The proposed project was submitted to China DNA for review on 7th April 2007	Application letter of Shanshuping 12 MW Small Hydropower Project in Sichuan Province, China.
2007	31th May	CDM Emission Reductions Purchase Agreement was signed between the project owner and Carbon Asset Management Swenden AB.	CDM Emission Reductions Purchase Agreement.
2007	12th June	Based on preparation and development for CDM for several months, the proposed project was approved by China DNA.	http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1329.pdf
2007	12th July to 10th August	The proposed project and the PDD was at the UNFCCC for GSP	http://cdm.unfccc.int/Projects/Validation/DB/91O80HM7P0NVWSWG22R3WCZLPXMRFC/view.html
2007	20th July	The China LOA was issued by China DNA.	The China LOA
2007	26th Nov.	"The review comments of preliminary design about	The document shows that the PDR of newly constructed Shanshuping Fourht Stage hydropower station-Yidaoqiao

		35kV newly constructed transmission line of Shanshuping Cascade power station in Jiulong County" by Sichuan Electric Corporation (Chuandianjijianhan[2007] No.18)	power station 35kV electricity transmission line project was approved by Sichuan Power Grid; in addition, the investment of this electricity transmission and transformation project was collected by the project owner, not Sichuan Power Grid. (Annex 5)
2008	1st October	It is expected to generate electricity	expected

Response by TÜV SÜD

Please find the reliable evidence that CDM was considered prior to the project start date attached as annex 1 to this response (IRL17). The document is called

> *"Shareholders conference summary of Kaiyuan Electric Power Co., Ltd of Jiulong County – Seminar about consideration of CDM and planning the construction of Shanshuping Four the Stage hydropower station project"*

This conference notes are reflecting that the PPs took note of

a) The supplementary PDR (IRL16) – which is quoted as concluding with "the economic benefit is poor, which cannot reach the benchmark standard. Therefore, the shareholders discussed the corresponding solution during the conference."
b) The approval about the connection of cascade hydropower station in the main stream of Jiulong River – which concludes that "due to the requirement by State Power Grid that the investment of electricity transmission for connection with electric system should be undertaken by the project owner".
c) Yidaoqiao Power Station which is currently still under validation, as a reference case for CDM development

Taking the above into account, it was decided that "it is worth to learn from Yidaoqiao Hydropower station" and it was concluded to arrange special staff for CDM issues and contact with a consultant to develop the project as CDM project as soon as the EIA approval is received.

TÜV SÜD is convinced that this document sufficiently demonstrates the serious consideration of CDM prior to project start, which took place in April 2006, given the sequence of events TÜV SÜD can confirm that:

- the design institute of the proposed project has signed a framework agreement on CDM development with global research institute of Tsinghua University on 5th January 2006
- The supplement PDR is revealing the bad economic prospects of the project activity, other evidence strengthen the fact that PP shall bear the costs of electricity connection, which makes the project financially unattractive without the CDM support
- The PP was aware of the financial difficulties opposed to the project as of March 13, 2006. Thus the serious consideration of the CDM is well justified.
- Project start: turbine and generator contracts are signed on April 25th – under the condition that the project receives the necessary governmental approvals.

- Environmental impact report is prepared (August 2006) and approved by the Environmental Protection Bureau in Ganzi Tibetan Autonomous State on 11th September 2006
- As announced in the meeting on March 13, the CDM consultant was contracted with completion of the EIA report on August 10th, 2006

The validation of the project was commenced about one year later, on 12th of July 2007, with start of the global stakeholder process. Given the PPs intention to obtain the LoA from China before commencing the validation, less than a year from CDM consultant contraction to GSP start is seen as a reasonable delay.