

JAPAN CONSULTING INSTITUTE

Sumitomo Fudosan Kudanshita Bldg 3F, No. 5, Kanda-Jinbocho 3-chome, Chiyoda-ku, Tokyo 101-0051, JAPAN Telephone Facsimile : +81-3-3222-8100 : +81-3-3222-8101/2

Date : 12 November 2008 Ref. No. : JCI-CDM-C-08-091

CDM Executive Board c/o Mr. Kai·Uwe Barani Schmit Manager CDM Section

<u>Subject : Project Participants and DOE's Response</u> <u>to the Request for Review</u> (Reference No.1849: Jinji 25.2 MW Hydropower Project (the Project) in Guangxi

Zhuang Autonomous Region, China)

Dear Sirs,

Please find the attached document which shows the Project Participants' response and JCI's response to the request for review for the CDM project with the reference number 1849.

In case you have any further question or request, please let us know by phone call or Email.

Yours sincerely,

Hideyuki Sato

Manager of Assessment Group JCI CDM Center Tel: +81 3 3222 8100 Fax: +81 3 3222 8101/2 Email: <u>sato-cdm@ici-plant.or.jp</u>



Response of Project Participants and DOE to Requests for Review

Project title:	Jinji 25.2 MW Hydropower Project (the Project) in Guangxi Zhuang		
	Autonomous Region, China		
Reference No.:	No. 1849		
Project Participants:	Guangxi Tengxian Dongdian Electric Power Co., Ltd.		
	Mitsubishi Corporation		
	(CDM consultant: Mitsubishi UFJ Securities Co., Ltd.)		
DOE:	Japan Consulting Institute, JCI		

Issue 1: The DOE is requested to clarify how it has validated that the project start date complies with the definition in the CDM Glossary of Terms and to confirm the prior consideration of the CDM in line with the guidance under EB 41, Annex 46.

Response of Project Participant:

According to the definition in the CDM Glossary of Terms version 04 and the requirement of EB 41 held on 30/07/2008 to 02/08/2008, the detailed information on the timeline of the Project should be provided to DOE. Furthermore, the continuing and real actions should be shown by mean of reliable evidence in accordance with the guidance under EB41 Annex 46. We would like to clarify the timeline as below:

19/05/2006	Feasibility Study Report (the "FSR") completed		
20/09/2006	Prior consideration on CDM Application ¹		
08/10/2006	Directors' meeting of the Project Owner (the "Owner") decided to seek support		
	from CDM ²		
18/10/2006	Contract with Consultant ³		
22/10/2006	Notice on financing for the Project by the local bank ⁴		
27/10/2006	Construction Start Consent ⁵		
13/11/2006	Contract with construction company ⁶		
19/04/2007	ERPA concluded ⁷		

¹ Attachment 1 to this response: Study on CDM Application of Project

² Attachment 2 to this response: Minutes of Directors' meeting

³ Attachment 3 to this response: Contract with Consultant

⁴ Attachment 4 to this response: Notice on Financing for Project by the local bank

⁵ Attachment 5 to this response: Contraction Start Consent

⁶ Attachment 6 to this response: Contract with Construction Company

⁷ Attachment 7 to this response: ERPA



17/07/2007 Validation Contract with DOE⁸
01/08/2007 Start of public comments of Parties, Stakeholders and NGOs
20/09/2007 On site Validation completed

- (1) According to the above timeline, it is evident that the date of contract with the construction company signed on 13/11/2006 is the earliest start date in accordance with the requirements of "Glossary of CDM Terms" and EB41 guidance, paragraph 67 though the PDD of the Project compiled previously took the date of the "Notice on financing for Project by the local bank". By this contract, the Owner made a formal commitment to the contractor to make a significant disbursement in return for the construction of the Project, which was made after obtaining the Construction Start Consent from a construction supervisory company⁹.
- (2) Because of the low profitability of the Project as exemplified by the below-benchmark-IRR in the PDD, the Owner was unable to move forward with the Project. Upon the prior consideration on CDM in September 2006, the Owner decided to seek support from CDM on 8 October 2006, followed by the formal letter from a local bank, which stated to provide loans taking in consideration of the extra revenue from CDM. It is clear from the evidence provided, that the Project was able to proceed, only because the Owner was able to receive financing thanks to CDM backing, thus proving that benefits of CDM were a decisive factor in proceeding with the Project
- (3) The reliable evidences of ERPA and Validation Contract were taken to secure CDM status in accordance with EB41 Annex 46.

Response of JCI:

In the Validation Report ver. 01 JCI had judged that 22/10/2006¹⁰ was appropriate date for the starting date of the project activity, since the bank as third party confirmed and supported the CDM project activity. The evidence was the Notice on Financing that the local bank in Tengxian issued to inform their positive consideration of loan to this project if the Project succeeded in CDM application. The project owner decided to start a construction of the project as CDM project activity.

But the starting date in Glossary of CDM terms was revised on 02/08/2008. The project participants (the "PP") reconsidered the starting date of the project and judged it did not meet to the new Glossary of CDM terms.

The PP selected that the date of contract with the construction company was most suitable to the new Glossary of CDM terms. It was the earliest date of CDM activity of the project. The PP provided the evidence of the construction contract with Guangxi Tengxian Dongdian Electric Co., Ltd. of which

⁸ Attachment 8 to this response: Validation Contract with DOE

⁹ Hunan Yuhui Water Conservancy and Hydropower Construction Supervisory Co., Ltd.

¹⁰ Attachment 4 to this response: Notice on Financing for Project by the local bank



issue date was 13/11/2006¹¹.

JCI judged that 13/11/2006 of the contract with the construction company was appropriate date for the starting date of the project activity according to the new Glossary of CDM terms.

Issue 2: Further clarification is required on how the DOE has validated the suitability of the input values to the investment analysis, as per the guidance of EB 38 paragraph 54 including the use of fixed input values throughout the assessment period. The PP/DOE are also requested to provide the spreadsheet used for the investment analysis, in accordance with EB 41, Annex 45, paragraph 8.

Response of Project Participant:

The detailed information to provide for the validation, as per the requirement of the Para 54 of EB 38 meeting report, and the explanation of input values used for the IRR calculations are described as follows:

- (1) All data for the IRR calculation of the Project is based and fully consistent with the approved FSR". The FSR was completed in May 2006 by Guangxi Wuzhou Water Conservancy and Electric Design Institute (the "Design Institute"), which is an independent governmental agency, qualified to compile FSR for hydropower projects. The Design Institute has obtained "Grade B" in water conservancy industry issued by the Ministry of Construction of the People's Republic of China¹². The FSR was approved by Development and Reform Commission of Wuzhou City, Guangxi Zhuang Autonomous Region (the "DRC"). The period of time from the date of the FSR and the time of investment decision in October 2006 is short for assumptions for IRR calculation and the investment decision to have changed. The Owner based its decision on the FSR completed by the Design Institute whose assumptions and contents were fully valid at the time of investment decision. Therefore, the data used at investment decision are credible and valid in accordance with the guidance provided in EB 38 paragraph 54.
- (2) Since the Project is still under construction now, the actual investment amount cannot be reviewed. However, the input data in the investment analysis can be verified through the following:

Parameters	Explanations	
Static total investment	The Static total investment of the Project is derived from the FSR. The	
is RMB 146.48 million	FSR was completed by the independent and certified Design Institute	

Attachment 6 to this response: Contract with Construction Company
 Attachment 9 to this response: License of Engineering Design



in accord with the FSR.	was approved by the DRC. The FSR is thus considered to be a reliable
	resource to reflect the actual economic situation of the Project at the time
	of investment decision.
	According to the financial audit report of the Project "Statement of the
	Project's Total Investment" ¹³ conducted by the Design Institute, the
	static total investment spent is RMB 166.36 million until 21 March
	2008, exceeding the estimated static total investment of RMB 146.48
	million in the FSR.
	Since the actual investment is higher than the estimated investment in
	the FSR, and the lower static total investment of RMB 146.48 million
	was used in IRR calculation, it can be said that the data of PDD is more
	conservative.
Annual electricity	The power generation of the Project is calculated through hydrological
delivered to grid is	data from 1959-1991, which is credible and reasonable. With a capacity
77,744MWh in accord	of 25.2 MW and an annual operation of 3,151 hours, the Project will
with the FSR.	generate 79,410 MWh of gross electricity annually, and an estimated
	annual net electricity of 77,744 MWh. The 1,666 MWh difference
	represents transmission loss and parasitic consumption within the power
	plant.
Expected tariff is RMB	The investment analysis of the Project conducted by the Design Institute
260/MWh in accord	is in accordance with "Economic Evaluation Code for Small
with the FSR.	Hydropower Projects" (the "SL16-95") ¹⁴ . SL16-95 is issued by the
	Water Resources Ministry of P. R. China and is applicable to the Project.
	It is a common practice to adopt the fixed electricity tariff and fixed
	costs when conducting the investment analysis in FSR in China. It can
	be found in SL16-95 (Page 2) that "The aim of the financial analysis is
	to assess the financial feasibility of the project under the current
	effective financial and tax regulations and price level". It can also be
	found in SL16-95 (Page 33) that "In order to ensure the accuracy and
	correctness of the financial analysis, and to avoid influence of the
	assessment result, the assumptions of costs and revenues of project

 ¹³ Attachment 10 to this response: Statement of Project's Total Investment
 ¹⁴ Attachment 11 to this response: Economic Evaluation Code for Middle & Small Hydropower Projects SL16-95



	should adopt the fixed price level". Thus, it is not only reasonable to		
	adopt a fixed electricity tariff and costs to conduct investment analysis,		
	SL16-95, which is an effective code applicable to investment analysis of		
	small and medium hydropower projects, obliges the Owner to use a		
	fixed tariff.		
	In China, the electricity tariff is strictly controlled by the government		
	and will not be significantly changed without permission by the		
	government. In order to ensure the stability of the price for the whole		
	country, the government has very strict control for the basic price such		
	as the tariff and commodity price. It is impossible for one specific power		
	company to forecast the electricity tariff variation in the future. The		
	adjustment of electricity tariff needs to be realized by negotiation of		
	several government departments or even needs to be approved by the		
	Communist Party of China Central Committee, which could not be		
	forecasted or controlled by one specific power company. So electricity		
	tariff used for financial analysis of projects could not be forecasted. Thus		
	only fixed electricity tariff derived could be adopted.		
	The tariff used in the FSR is also derived from the "Notification on		
	Tariff of Guangxi Zhuang Autonomous Region [2004]222", issued by		
	the Provincial Administration of Commodity Prices ¹⁵ . The Guidance has		
	been issued in 2004, but no new guidance was issued until now. The		
	tariff of the Project can also be cross checked by the Project Power		
	Purchase Agreement (the "PPA") ¹⁶ signed on 02/08/2007.		
	In the PPA, the tariff is RMB 260/MWh (excl. VAT), which is fixed by		
	the PPA signed with Guangxi Tengxian Power Company. The actual		
	tariff is equal to the tariff RMB 260/MWh (excl. VAT) in the FSR. Thus		
	the tariff derived from the FSR is suitable.		
Annual O&M cost is	Using fixed input values to calculate IRR in the FSR is based on		
RMB 2.8 million in	SL16-95. It can be found in SL16-95 (Page 33) that "In order to ensure		
accord with the FSR.	the accuracy and correctness of the financial analysis and to avoid		

Attachment 12 to this response: Notification on tariff of Guangxi Zhuang Autonomous Region [2004]222
 Attachment 13 to this response: Power Purchase Agreement signed on 2007-8-2.



influence of the assessment result, the assumptions of costs and revenues
of project should adopt the fixed price level". Thus it is reasonable to
adopt fixed Annual O&M cost to conduct investment analysis. And all
the FSR adopted fixed input values along with project life times, which
is common practice in China.
The annual O & M cost include maintenance fee, salary, material fee,
reservoir region maintenance fee, water usage fee and other fee. All
these parameters in FSR are set fixed in the whole project life times in
the project financial analysis according to the SL16-95.
In the FSR, the maintenance fee is calculated as 1% of the total statistic
investment. As the total investment increased from 146.48 million of
2006 to 166.36 million of 2008, the Maintenance fee of O&M cost used
in calculation of IRR seems to be conservative.
Moreover, according to the China Statics Year Book ¹⁷ , the salary of the
employees has been increased after 2004. The average salary of the
employees is RMB 23.933 thousand /year in 2004 ¹⁸ (Source: China
Statics Year Book 2005), the average salary of the employees is RMB
28.170 thousand /year in 2005 ¹⁹ (Source: China Statics Year Book 2006)
and the average salary of the employees is RMB 30.729 thousand /year
in 2006 ²⁰ (Source: China Statics Year Book 2007). However, in the
FSR, which was completed in 2006, the salary of the Project's
employees is RMB 10 thousand /year. It could be showed that, the state
of the average salary of the employees is increased annually. It's
impossible for the annual O&M cost to be decreased and the fixed
Annual O&M cost is conservative

As a summary, using fixed input values to calculate IRR throughout the period of the assessment period is in accordance with SL16-95. Furthermore, the actual total investment is higher than the total investment amount of FSR, the actual tariff is equal to the tariff used in the FSR and the

http://www.stats.gov.cn/english/statisticaldata/yearlydata/
 http://www.stats.gov.cn/tjsj/ndsj/2005/html/E0526e.htm
 http://www.stats.gov.cn/tjsj/ndsj/2006/html/E0520e.htm
 http://www.stats.gov.cn/tjsj/ndsj/2007/html/E0525e.htm



O&M costs are likely to increase. Therefore, we can conclude that calculation methods that are currently applied for fixed input values could be considered as conservative approach in the CDM context.

(3) In accordance with the Guidance in EB41, Annex 45, paragraph 8, the spreadsheet for investment analysis is attached(the "Spreadsheet for Investment Analysis")²¹

Response of JCI:

(1) Input values

The input values used in the investment analysis of the PDD were as below table that compared with those values used in the Feasibility Study Report (the "FSR"). The feasibility report based for investment decision of the project owner was the FSR that was prepared and issued on 19/05/2006 by the Guangxi Wuzhou Water Conservancy and Electric Design Institute (the "Design Institute") as shown in the project participant's response.

Item	Parameters	Unit	FSR	PDD
1	Installed Capacity	MW	25.2	25.2
2	Annual electricity delivered to grid	MWh	77,744	77,744
3	Annual operation hours	h	3,151	3,151
4	Static total investment	Million RMB	146.4829	146.4829
5	Annual O&M cost (average)	Million RMB	2.800	2.800
6	Expected tariff (excl. VAT)	RMB/MWh	260	260
7	Income tax	%	15	15
8	Value-added tax (VAT)	%	6	6
9	Other tax	% on VAT	6	6
10	Operation period	Year	30	30
11	Crediting period	Year	7* years (*renewable)	7*3
12	Expected CERs price	EUR/ tCO2e	8.00	-
13	EUR/RMB exchange rate	-	EUR 1.00 = RMB 10.00	-

All input values of the PDD are the same as those of the FSR as shown in above table.

JCI validated the suitability of the input data to the investment analysis according to the guidance of

²¹ Attachment 14 to this response: Spreadsheet for Investment Analysis



EB 38 paragraph 54.

- (a) The FSR was issued on19/05/ 2006 by the Design Institute. Based on this report the project owner decided to seek a help from CDM at the Directors Meeting on 08/10/2006²². And the local bank issued the Notice on financing for the Project to on 22/10/2006²³ to inform that the bank decided to positively consider a loan to this project if the Project succeeded in CDM application. And then the project owner decided to start construction on 27/10/2006²⁴. From above information JCI judged the investment decision of the PP was based on the FSR and it was sufficiently short time between the finalization of the FSR and the investment decision.
- (b) JCI confirmed that all values used in the PDD are fully consistent with the data in the FSR as shown above table.
- (c) JCI did cross check the input values and confirmed specific local and sectoral expertise as follows.
 - JCI confirmed the input values of the five hydropower CDM projects in Guangxi Zhuang Autonomous Region of China. All of five projects are under register requesting stage of CDM. The input values of those projects are in the following ranges. The values in parenthesis are of the proposed project.

Installed Capacity; 25.2 – 90 MW (25.2MW)

Investment/Capacity; 5,813 – 8,079 RMB/kW²⁵ (5,813 RMB/kW)

O&M cost/Investment; 1.81 – 2.91% (1.91 %)

Electric Tariff; 0.22 – 0.30 RMB/kW excluding VAT (0.26 RMB/kW excluding VAT) The input data of the proposed project are in the range of other project in the relevant region. The static total investment was lower level in the relevant region and it was conservative for financial analysis.

2) After receiving the request for review JCI requested the PP to submit the actual static total investment at present and the actual tariff. The PP reported as the response above.

Static total investment;

The project is still under construction then JCI cannot confirm the final value. Till 21 /03/2008, the actual expense of this project was RMB 166.36 Million²⁶ that was over RMB 146.4829 Million of static total investment in the PDD. Then the Static total investment in the PDD was conservative value.

Expected tariff;

²² Attachment 2 to this response: Minutes of Directors' meeting

²³ Attachment 4 to this response: Notice on Financing for Project by the local bank

²⁴ Attachment 5 to this response: Contract Start Consent

²⁵ In the validation report JCI confirmed that the investment costs per kW of similar six small scale hydropower projects in

the relevant Region were ranged from 5,314 to 7,764 RMB/kW. Those projects included also some projects without CDM.

²⁶ Attachment 10 to this response: Statement of Project's Total Investment



The Project Participant provides the Power Purchase Agreement²⁷ (the "PPA") of this project to JCI. The PPA dated on 02/08/2007 shows the electric tariff is RMB 260 /MWh which is conformed to the guidance²⁸ of tariff issued by the local Administration of Commodity Prices. RMB 260/MWh is consistent with value in the PDD.

3) JCI confirmed specific local and sectoral expertise as follows. The loan proposal based on the FSR was submitted to the Bank of Tengxian County Agricultural Credit Corporation who investigated it. The Bank agreed with the FSR and decided to provide the loan if the project succeeds in CDM application²⁹. JCI thought the Bank possessed specific local and sectoral expertise ability on such investment study and financial estimation.

JCI considers that all input values used in the PDD were reasonable and appropriate.

(2) Fixed input values

The PDD showed that the 10 % of the bench mark was selected in accordance with Economic Evaluation Code for Small Hydropower Projects (SL16-95)³⁰ issued by Ministry of Water Resources, People's Republic of China. This code describes clearly that in order to ensure the accuracy and correction of the financial analysis and to avoid influence of the assessment result, the input values of cost and revenues should adopt the fixed price level.

JCI has reviewed a lot of feasibility study reports for hydropower and wind projects in China. It can be confirmed that the above guideline is usually applied as common practice in China. All of FSRs and PDDs use fixed input parameters for electric tariff and O&M cost.

In China a local electricity tariff is settled by the local Administration of Commodity Prices based on the guidance of Provincial Government. The tariff is a policy matter of government and is not decided by market mechanism. Therefore the Project Owner is not easy to forecast a future electric tariff for the period of project life.

Regarding O&M cost it will increase almost along with average wage level. The China Statistical Yearbook shows that the Index of Average Real Wages in China is increasing 12 - 13 % every year. If the O&M costs are assumed to increase by such rate, the IRR will be decreased very much. The PP does not apply increasing O&M costs usually for analysis and it is conservative and reasonable for financial analysis.

JCI judged that an application of fixed input values in the IRR calculation was reasonable and acceptable under the present Chinese Code.

²⁷ Attachment 13 to this response: Power Purchase Agreement

²⁸ Attachment 12 to this response: Notification on tariff of Guangxi Zhuang Autonomous Region [2004]222

²⁹ Attachment 4 to this response: Notice on Financing for Project by the local bank

³⁰ Attachment 11 to this response: Economic Evaluation Code for Small Hydropower Projects SL16-95



(3) Spreadsheet used for the investment analysis

The PP and JCI submit the active spreadsheet³¹ to UNFCCC by E-mail.

Issue 3: The DOE is requested to further clarify the criteria for selecting the five similar projects for the common practice analysis.

Response of Project Participant:

The issue 3 is responded by the DOE. Please refer to the DOE's response.

Response of JCI:

In accordance with the "Tools for the demonstration and assessment of additionality (version3)", the others similar project activities were selected in the table B.4 of PDD.

- (1) In order to have a fair and reasonable comparison with the Project, similar hydropower projects were chosen that (i) were under constructed after 2002, (ii) are in the Guangxi Zhuang Autonomous Region, and (iii) have similar installed capacity to the Project.
- (2) The five similar projects constructed after 2002 were selected. Because major reforms in the Chinese power sector have been proceeded since 2002.

As explained in the PDD, since the reform in 2002, the electricity generation industry is moving towards a more market oriented system from a state-controlled system, putting many power companies in the more competitive environment. On 10/02/2002, the National Council of P.R.China issued the "Notice of National Council Issued about the Power System of Organization Reform Program" [2002 No.5]. According to this Notice, the general objectives of reform are: breaking up monopoly, introducing competition, increasing efficiency and decreasing costs in power system. In order to realize the these objectives, the China State Power Corporation was diversified into two grid companies (State Grid and Southern Grid) and five power companies (Huaneng, Guodian, Datang, Huadian, and China Power Investment).

Despite the introduction of the reforms in 2002, the government involvement remains strong. Though the transmission and distribution sector was diversified, it was still controlled by the State, which resulted in no real changes and competition among state-own companies. The private companies face unfair competition from state-own companies due to the lack of internal link with state-own grid companies. Furthermore, state-own companies have great advantage in access to financing. They have very large capital reserves and operational capacity and easy access to financing from government.

³¹ Attachment 14 to this response: Spreadsheet for Investment Analysis



On the contrary, private companies face more problem concerning financing channels due to their weak capital reserves and operational capacity. Especially in China, power companies must sell the electricity to grid companies directly and selling to other users is not allowed. To sum up, the reforms in 2002 could have brought developer's reluctance especially for private companies like this Project in investing to the hydropower plants due to the unfair competition and high risk remained after reform explained in above.

- (3) In a huge country like China where the geographical, institutional, economic and investment environment varies among provinces, it is fair to look for similar projects in the same province. This is also the common practice in CDM projects in China.
- (4) The Owner searched for projects which have installed capacity of 20% plus or minus of the Project (ie 20MW to 30MW) which is deemed to have similar characteristics and thus face the similar conditions as the Project.
- (5) In light of the above, hydropower plants for the common practice analysis and the related parameters are sourced from Yearbook of Hydropower Resources Programming 2006³², which is an official statistics, issued by the Guangxi Water Conservancy and Hydropower Bureau. There are five projects with installed capacity between 20MW and 30MW appeared in the Yearbook, and all of the five projects have applied for CDM.
- (6) As for the five similar projects listed in the table B.4 of the PDD, Projects No.1-3 were under validation at that time. Also No.3-5 were not in operation.

JCI confirmed that selection of similar projects was done appropriately. The discussion showed that all of the comparable projects listed as similar project were developed as CDM project activities, exemplifying the fact that all similar projects and the proposed project required the additional CDM revenue to compensate the poor financial returns and market risks.

Issue 4: Further clarification is required on how the DOE has validated that the emission factor used is more conservative than what was published by the DNA of China.

Response of Project Participant:

We would like to make the following clarification:

The latest emission factor published by the DNA of China (National Development and Reform

³² Attachment 15 to this response: Hydropower Resources Programming of Guangxi Zhuang Autonomous Region published by Guangxi Water Conservancy and Hydropower Bureau



Commission, or the "NDRC") available at the time of PDD submission and the emission factor used in the PDD is shown below.

	ОМ	BM	EF	Comment
NDRC ³³	1.0119	0.6748	0.8434	Emission factors of China Southern Power Grid
PDD ³⁴	1.0354	0.6748	0.8551	

As seen from the table, a different figure was used in the PDD from the NDRC for OM, resulting in the different emission factor. As explained in the PDD, in the emission factor calculation, the import electricity from Central China Power Grid ("CCPG") was taken into account for the 2005 OM calculation, because the import electricity from CCPG exceeded 20% of the total generation amount of China Southern Power Grid ("CSPG"). This calculation is in conformity with the methodology applicable at the time (ACM0002 version 6).

However, the Project Participant has decided to use the official emission factor published by the NDRC which is a more conservative figure. Consequently, the annual emission reduction would be changed from the 66,479 tCO2e/yr in the PDD to 65,569 tCO2e/yr (cf. table below for the calculation).

Net electricity generation	77,744 MWh/yr
Emission factor	0.8434 tCO2e/MWh
Annual emission reductions	65,569 tCO2e/yr

The above change in the emission factor and the resulting revision of emission reductions does not at all undermine the significance of CDM incentive for the project developer. CDM support continues to be vital for this Project to be implemented, which can also be explained from the fact that the CDM revenue helps reach the bench mark in the investment analysis. Please refer the Spreadsheet for Investment Analysis for details.

Response of JCI:

The emission factors used in the PDD are as follows.

PDD ver.03 for registration request;

OM ; 1.0354 tCO₂/MWh BM; 0.6748 tCO₂/MWh CM; 0.8551 tCO₂/MWh

³³ 2007 Baseline Emission Factors for Regional Power Grids in China published by the NDRC on 9 Aug 2007, which was based on statistics from the 2004, 2005 and 2006 editions of the China Energy Statistical Year Book. The 2006 edition was published in March 2007.

PDD version 03, dated 24 April 2008



The reasons of difference from the PDD ver.01 for the stakeholder's comment are explained in the page 9 and 22 of the Validation Report ver.01. The reasons are a change of the emission factors published by the China DNA from 2006 to 2007 and also re-calculation of the OM value considering electricity import from other Grid.

The emission factors published by the China DNA are as follows.

2007, China Southern Power Grid (published on 09/08/2007)

OM; 1.0119 tCO₂/MWh BM; 0.6748 tCO₂/MWh (CM; 0.8434 tCO₂/MWh) The PDD ver.03 was prepared and issued on 24/04/2008 when the latest version of the China DNA was of 2007. And ACM0002 ver. 06 required estimating OM using CM of exporting grid if imports electricity exceeds 20% of the total generation in the project electricity system. In the project case the import from CCPG in 2005 was exceeds 20% of electricity of CSPG. From these data JCI judged that the baseline emission factor was determined in appropriate and transparent manners in accordance with the ACM0002. These situations and process of validation are stated clearly in the Validation Report.

By receiving the Request for Review the PP decided to change the emission factors in the PDD to the $0.8434 \text{ tCO}_2/\text{MWh}$ of the official emission factor published by the NDRC because the official emission factor was more conservative than that of the PDD.

JCI judges that the change of the emission factor of PDD to $0.8434 \text{ tCO}_2/\text{MWh}$ is acceptable and appropriate.