JAPAN CONSULTING INSTITUTE

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Date : 23 October 2008
Ref. No.: JCI-CDM-C-08-087

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

Subject : DOE and Project Participants Responses to the Request for review for registration request
(Reference No.1817: Fengguang 24.9MW Hydropower Project in Guangdong Province, China)

Dear Sirs,

Please find the attached document which shows JCI's responses and the Project Participant's responses to the request for review for the above CDM project (Reference No.1817: Fengguang 24.9MW Hydropower Project in Guangdong Province, China).

If you have any further question or request, please let us know by phone call or E-mail.

Yours sincerely,

Hideyuki Sato

Manager of Assessment Group
JCI CDM Center
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Initial Responses of DOE and Project Participants to Review Requests

Project Title: Fengguang 24.9MW Hydropower Project in Guangdong Province, China
Reference No.: No.1817
Project Participants: (1) Dongjiang Fengguang Likou Power Plant Development Co., Ltd.
(2) Marubeni Corporation
(CDM consultant: Beijing Haohua Rivers International Water Engineering Consulting Co., Ltd.)
DOE: Japan Consulting Institute, JCI

Issue 1-1: Further clarification is required on how the DOE has validated the input values for the investment analysis as per EB 38 para. 54 guidance.

(Response of JCI)

The Validation Report for Fengguang 24.9MW Hydropower Project in Guangdong Province, China (hereinafter referred to "the Project") was completed and uploaded for the request for registration on UNFCCC Website on April 11, 2008, based on the PDD Version 03 which was completed on March 02, 2008, before the 38th EB Meeting which was held during March 12-14, 2008. Anyway it was a transitional period regarding the guidance of EB 38 paragraph 54.
JCI had validated the input values for the investment analysis of the Project from viewpoints of conservativeness and reality, and hadn't followed the guidance of EB 38 paragraph 54.
Under the request of the CDM EB to follow the guidance of EB 38 paragraph 54, JCI revised some of the input values (the tariff and the income tax rate) for the investment analysis.

"54. The Board clarified that in cases where project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities, DOEs are required to ensure that:
(a) The FSR has been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed".

(Response of JCI)

The Feasibility Study Report (hereafter referred to as "FSR") of the Project was completed in

November 2004 by Guangdong Province Zhurong Engineering Design Co., Ltd., which is an independent third party entity accredited by the relevant national authority to carry out feasibility studies for new projects, including power plants, which was confirmed by its qualification (Please refer to Annex 1.) and was approved by Guangdong Province Development and Reform Commission on 03/02/2005. The tariff of the Project was estimated and approved to be 0.484 yuan/kWh (including VAT) or 0.4566 yuan/kWh (excluding VAT) by Heyuan City Price Bureau on 09/06/2005 (Please refer to Annex 2.).

Based on the Feasibility Study Report in November 2004, the approved document for the FSR by Guangdong Province DRC on 03/02/2005 and the approval tariff document issued by Heyuan City Price Bureau on 09/06/2005, the Project had not been economically feasible. So the Directors' Board Meeting was held by the project owner for the intention of CDM application on 20/07/2005. Therefore the period of time between the finalization of the FSR and the investment decision was only eight months, which was less than one year and considered to be sufficiently so short that the input values couldn't have materially changed .

The detailed time line is summarized as follows:

Year	Date	Milestones
2004	November	FSR completed by Guangdong Province Zhurong Engineering Design Co., Ltd.
2005	January	EIA Report completed by the Institute of Environmental Science of Zhongshan University and approved by Guangdong Environmental Protection Bureau
	03 February	FSR approved by Guangdong Province DRC
	09 June	The tariff of 0.484yuan/kWh (including VAT) or 0.4566 yuan/kWh (excluding VAT) was approved by Heyuan City Price Bureau
	20 July	Base on the FSR in November 2004 and the approved document for the FSR by Guangdong Province DRC on 03/02/2005 and the approval tariff by Heyuan City Price Bureau on 09/06/2005**,** the proposed project was not economically feasible. So the Director Board Meeting was held for the intention of CDM application (**Serious consideration of CDM**)
	11 November	The purchase agreement for Turbines and Generators signed (**Starting date of the project activity**)
2006	28 March	CDM consultancy agreement with Beijing Haohua Rivers International Water Engineering Co., Ltd.
	23 April	Stakeholders' Meeting for CDM application among the related entities
	01 May	Commencement of the construction (The Letter of Commence issued by Heyuan City Supervisory Organization)
2007	15 August	Submission of PDD (Version 01, dated 15th August 2007) to DOE
	22 August – 20 September	PDD made publicly available for stakeholders' comments
	13 November	Power Purchase Agreement with Heyuan City Power Supply Bureau of Guangdong Power Grid Company
	11 December	Instruction of the grid-in electricity price of the proposed project by Heyuan

		City Price Bureau (The tariff of 0.48yuan/kWh (including VAT) or 0.4528 yuan/kWh (excluding VAT))
2008	01 July	Electricity Generation from the generators Start(expected)

"(b) The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE should validate the appropriateness of the values."

(Response of JCI)

As for the Project, the basic parameters are as follows:

Parameters	**Unit**	**The values in FSR**	**The values in PDD**	Remarks
Installed Capacity	MW	24.9	24.9	
Total static investment	Million Yuan	502.7057	418.2557	Inconsistencies occured
Annual O&M cost	Million Yuan	8.6784	8.6784	
Estimation of annual grid-connected electricity generation	MWh	130,420	130,420	
Feed-in Tariff (Excluding VAT)	Yuan/kWh	0.38	0.4566	Inconsistencies occured
Rate of Value Added Tax (VAT)	%	6	6	
City building and maintenance tax rate	%	1	1	
Surcharge for education	%	3	3	
Income tax rate	%	33	25	Inconsistencies occured
Project operation life time	Year	30	30	

From the above table for all input values, there are three inconsistencies occurred between FSR and PDD for the following three input values (1) Total Static Investment, (2) Feed-in Tariff (excluding VAT) and (3) Income tax rate.

(1) <u>Total Static Investment</u>

According to the FSR completed by Guangdong Province Zhurong Engineering Design Co., Ltd in November 2004, the total static investment of the Project was 502.7057 Million Yuan, and the FSR was approved by Guangdong Province DRC on 3rd, February 2005. According to the approval letter issued by Guangdong Province DRC, 84.45 Million Yuan for counter reservoir which was part of the

total static investment in the FSR would be borne by the local government and other total static investment had to be borne by the project owner (Please refer to Annex 3.). The project owner seriously considered CDM on 20th July 2005, when the approval letter for the FSR by Guangdong Province DRC had been issued, which means it was prior to the investment decision. So the 84.45 Million Yuan approved by Guangdong Province DRC was deducted from the total investment in the investment analysis. This inconsistency clearly considered to be reasonable and appropriate.

(2) Feed-in Tariff (Excluding VAT)

The tariff of 0.38 Yuan/kWh (Excluding VAT) in the FSR completed in November 2004 was not from the approved tariff document by the local government. According to *Reply letter on grid-in tariff cost calculation of Heyuan Municipal Fengguang hydropower project* (Please refer to Annex 2.) issued on 9th June 2005 by Heyuan City Price Bureau, which is the government department in charge of the tariff in Guangdong Province, the tariff of the Project was estimated and approved to be 0.484 Yuan/kWh (including VAT) or 0.4566 Yuan/kWh (excluding VAT). The timing of issuance of the approval letter was prior to the investment decision (on 20th July 2005) and it was also a policy of the local government that the project owner should conform to the government's document. Therefore this inconsistency considered to be reasonable and appropriate.

Heyuan City Price Bureau finally regulated the actual tariff for the Project on 11th December, 2007 and the tariff in this approval letter (*The Request for instructions of the grid-in electricity price of Fengguang hydropower station in Heyuan City* (Please refer to Annex 4.)) was 0.480 Yuan/kWh (including VAT) or 0.4528 Yuan/kWh (excluding VAT) (The difference from the value approved on 9th June 2005 was less than 1%.).

(3) <u>Income Tax Rate</u>

The income tax rate of 25% used in the investment analysis had been based on the latest Enterprise Income Tax Law of the People's Republic of China issued by State Council of the People's Republic of China on 16th March 2007, because the Project was expected to start the operation in 2008 and JCI judged that 25% would make the investment analysis conservative. According to the guidance of EB 38 paragraph 54 and the Annex 45 "Guidance on the assessment of investment analysis"(version 02) of EB 41, however, the income tax rate of 33% in the FSR, which was the basis for the investment decision, should have been used in the investment analysis. JCI judged the value of the income tax rate should be changed from 25% to 33%.

"(c) On the basis of its specific local and sectoral expertise, confirmation is provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision."

(Response of JCI)

The basic financial parameters used in the investment analysis for the Project was confirmed and/or cross-checked as follows:

(1) Installed Capacity (24.9MW)

The installed capacity (8.3MW x 3 Units = 24.9 MW) was confirmed by the purchase agreement of water turbines/generators and by the nameplates at the site during the on-site assessment.

(2) Total static investment (418.2557 Million Yuan)

According to the data published on 24th August, 2006 by Zhujiang Water Conservancy Commission of the Ministry of Water Conservancy which is an governing department for water conservancy, there were six hydropower stations which are under construction in the location of the Project (Heyuan City). They were Longtan hydropower station, Lankou hydropower station, Gankeng hydropower station, Luoyingkou hydropower station, Liucheng hydropower station and Huangtian hydropower station. The investments per kW of them are 9,286 Yuan/kW, 12,308 Yuan/kW, 10,980 Yuan/kW, 11,667 Yuan/kW, 12,549 Yuan/kW and 16,000 Yuan/kW respectively and the average investment per kW of them is 12,132 Yuan/kW.

The investment per kW of the proposed project is 16,797 Yuan and it is higher than the average investment per kW in the location of the Project. According to the FSR, the Project is a water conservancy hub project, and the project owner had to bear the investment for improvement of water environment, shipping and transportation, and counter reservoir, other than the investment for power generation. Therefore, the total static investment of the Project was higher by 38% compared with other similar projects.

The FSR of the Project was completed by Guangdong Province Zhurong Engineering Design Co., Ltd., which is an independent third party with the first grade qualification of engineering design in Water Sector, and also it was reviewed by the government organization of Guangdong Province Water Resources Department. Finally it was approved by Guangdong Province DRC.

Based on the above data/circumstances and the preparation/approval procedures of the FSR, JCI judged that the total static investment was credible and appropriate.

(3) Estimation of annual grid-connected electricity generation (130,420 MWh)

According to the Hydrological Analysis of the Project in the FSR, the hydrological condition for the Project was based on the 29 years series hydrology data from 1974 to 2002 measured by Heyuan City hydrometric station and its value is relatively stable.

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, which was described in the FSR. Then the gross amount of electricity generated was decided. The annual grid-connected electricity generation is estimated by the following formula:

Annual grid-connected electricity generation = (Gross amount of electricity generated)
x (Electricity Coefficient) x (1-Self-consumption (%)) x (1-Line loss (%))

where the following factor was applied in the Project.

Electricity Coefficient (effective factor) = 0.9

--- justified by Table 3.4 of "the table of the rate of the effective electricity" of SL 16-95 of "Economic evaluation code for small hydropower projects" issued by Ministry of Water Resources (MWR) of China on 02/06/1995

Self-Consumption = 1%

--- justified by "Hydroenergy design code for small hydropower projects" of SL 76-94 issued by MWR of China on 28/03/1994

Line Loss = 3%

--- justified by "Hydroenergy design code for small hydropower projects" of SL 76-94 issued by MWR of China on 28/03/1994

The above documents and the calculation method with justification were confirmed, and JCI considered the annual grid-connected electricity generation is reasonable and appropriate.

(4) Feed-in Tariff (Excluding VAT) (0.4556 Yuan/kWh)

The tariff of the Project was estimated and approved on 6th June 2005 by Heyuan City Price Bureau to be 0.484 Yuan/kWh (including VAT) or 0.4566 Yuan/kWh (excluding VAT).

According to *the Instruction of the grid-in electricity price of the proposed project by Heyuan City Price Bureau* on 11th December 2007, the actual and final tariff of the Project is 0.4528Yuan/kWh (Excluding VAT), a little lower than the tariff level on 6th June 2005, which is enough evidence to justify the appropriateness of the tariff considered in the investment decision.

Furthermore, according to latest tariff document "*Notice of Guangdong Price Bureau on Regulate Grid-in Tariff Of Small Hydropower Electricity*" issued by Guangdong Province Price Bureau on 1st August 2007 and available on its Website, the protected lowest tariff level of the small hydropower projects in Guangdong Province is 0.3954Yuan/kWh (Excluding VAT), which is also an evidence for the justification of the tariff adopted in the Project.

Based on the above information, JCI judged the tariff adopted in the Project is clearly appropriate.

(5) Rate of Value Added Tax (VAT) (6%)

According to Guoshuihan [1998] No.843 issued by China National Tax General Bureau on 30/12/1998 and available its Website, Value Added Tax for small hydropower projects is 6%, which was confirmed by JCI.

(6) City building and maintenance tax rate (1%)

According to Article 2 of Guofa[1985] No.19 issued by China Central People's Government on 08/02/1985 and available its Website, the city building and maintenance tax rate is 1%, which was confirmed by JCI.

(7) Surcharge for education (3%)

According to State Department of PRC No.448 issued by China State Department and available its Website, the surcharge for education rate is 3%, which was confirmed by JCI.

(8) Income tax rate (33%)

According to Status of State Department Guowuyuanling No.137 issued by China National Tax Bureau on 13/12/1993 and available its Website, the corporate income tax rate is 33%, which was confirmed by JCI.

(9) Project operation life time (30 Years)

Though 30 years of operation lifetime is based on the project owner's expectation and FSR, JCI, also a group of the experts in plant engineering of various fields, judged that 30 years of operation lifetime was appropriate as an initial value for the investment analysis of this type of plant.

(10) Annual O&M cost (8.6784 Million Yuan) (Data Source: Table 12-2 in the FSR)

The rates of the parameters for Annual O&M cost calculation were basically decided as per Annex

B of *Economic Evaluation Code for Small Hydropower Projects* issued by the Ministry of Water Resources (MWR) (SL 16-95), the breakdown of which is as follows:

i) Rate of maintenance costs (1% of the total static investment)
ii) Wages and benefits (1.2408 Million Yuan,
including the workers' welfare funds (14% of the salary))
iii) Water resources fee (0.003Yuan/kWh)
iv) Security cost (0.3%)
v) Reservoir maintenance fee (0.001 Yuan/kWh)
vi) Other cost (12 Yuan/kW when the installed capacity is larger than 1.2MW)

JCI confirmed the above figures in the Code of SL 16-95 and by the project owner's explanation and judged all the parameters comprising the annual O&M cost are appropriate.

As shown in the above cross-checking and the appropriate manner, JCI confirmed that all the input values from the FSR and the relevant evidences are valid and applicable at the time of the investment decision.

Issue 1-2: The PP/DOE are also requested to provide a spreadsheet for all calculations related to the investment analysis.

(Response of JCI and Project Participants)

The spreadsheet (Excel) for all calculations related to the investment analysis has been attached and provided (Please refer to Annex 5.), where the tariff of 0.484Yuan/kWh (including VAT) or 0.4566 Yuan/kWh (excluding VAT) approved by Heyuan City Price Bureau on 9th June 2005 and the income tax rate of 33% from FSR were used according to the guidance of EB 38 paragraph 54.

Issue 2: The PP/DOE is requested to further clarify the common practice analysis, in particular how the power policy reform in China in 2002 has affected the investment climate for small hydro projects.

(Response of JCI and Project Participants)

The outline of the power policy reform in China in 2002 has been described with quoting the Notice on Issuing ***Electric Power Sector Reform Programme*** by State Council on 10th February 2002.
The effect of the power policy on the investment climate for small hydro project is described as follows:
According to the document published by The Investment Association of China and available on its Website, there are three stages which were gone through for the China Power Industry:

(1) Prior to 1987: The former State Grid Corporation was the investment body for the electricity investment in China;

(2) From 1988 to the power policy reform in 2002: The State Council of the People's Republic of China approved *Notice on the Interim Provisions of imposing the Electricity Constructing Capital (Guofa [1987] No.111)* which was issued by the State Planning Commission, and the notice stipulated that the state started to impose the electricity constructing capital through the country to build the large and middle-sized electricity projects listed in the state Plan after 1st January 1988. The levy standard of the electricity constructing capital was 0.02yuan/kWh and the property right of the electricity projects belongs to various provinces, autonomous regions and cities. The wall that State Grid Corporation was the single investment body for the electricity investment was broken down during this stage, the various provinces and cities started to establish electricity investment companies to participate the electricity investment, and the pattern was formed that the former State Grid Corporation and the local government jointly participated in the electricity investment.

(3) On 10th February 2002, the power policy reform was started. That is, the State Council issued the *Notice on Issuing Electric Power Sector Reform Pr*ogramme (Guofa [2002] No.5) and the monopoly of the electricity investment was broken down by separating electric power plants from electric power grids and netting by price-bidding. Diversification of investment body was realized, which brought the results that the investment for small hydropower projects was market–oriented, private enterprises and private funds entered to the small hydropower industry;

According to the paper issued by Dr Ren Dongming who is a research fellow at the Energy Research Institute, National Development and Reform Commission of the People's Republic of China, in the

situation of terminal tariff under control, “linkage mechanism” (the mechanism which connects the grid-connected tariff for the power plants and the tariff of the end market) hasn’t been established after the power policy reform in 2002, and small-scale hydropower joining the tariff competition will induce the decrease of grid-in tariff and decrease the profits of the whole small-scale hydropower enterprise. Compared with the central power enterprise, the scale of local power enterprise is relatively small and the ability of risk-resist is low. Installed unit capacity of small scale hydropower is small and it is in disadvantage status in regional power market competition. In the mechanism of two new tariff and tariff competition, new small-scale hydropower plant is in the disadvantage status. In the old mechanism, power enterprises are monopolized by state and hasn’t the pressure of repay loans, the construction material cost is low, and the ability of tariff competition is better. Under the new mechanism, small scale hydropower stations need to bear the interest, expensive construction materials and high labor cost, and have low ability of tariff competition. In addition, they face the relatively high operation pressure.

Based on the situation described above, small scale hydropower projects in Guangdong Province which started construction after 10th February 2002 were selected as the similar projects for common practice analysis in the PDD.

Annex;

Annex 1: Qualification Certificate of the Design Institute

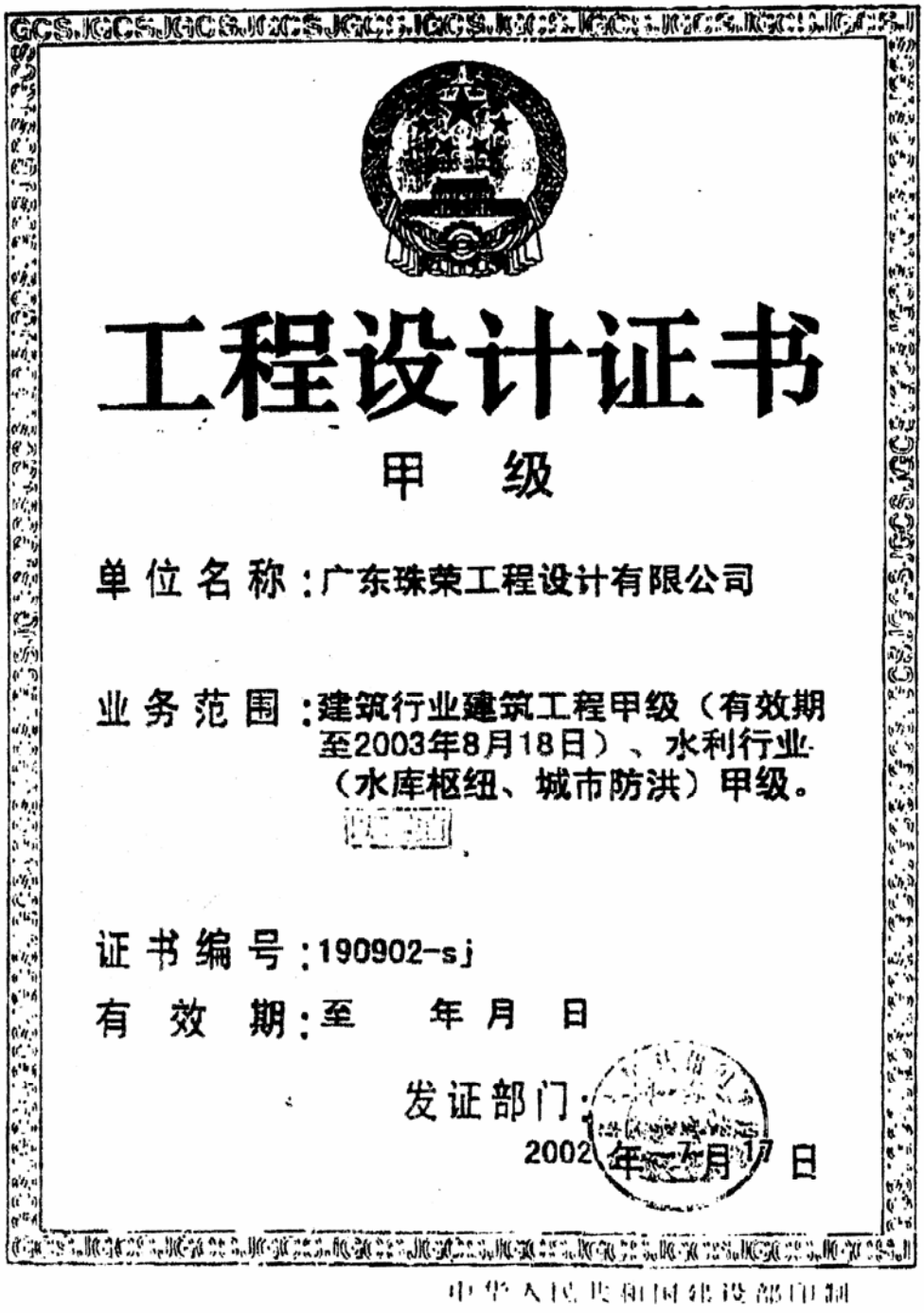
Annex 2: Reply letter on grid-in tariff cost calculation of Heyuan city Fengguang hydropower project issued on 9th June 2005 by Heyuan City Price Bureau

Annex 3: The approval of the Feasibility Study Report (FSR) of Fengguang (Hengzhen) hydropower project in Heyuan City issued by Guangdong Province DRC on 3rd February 2005

Annex 4: The Request for instructions of the grid-in electricity price of Fengguang hydropower station in Heyuan City on 11th December 2007 by Heyuan City Price Bureau

Annex 5: The spreadsheet (Excel) for all calculations related to the investment analysis

Annex 1



工程设计证书

甲　级

单位名称：广东珠荣工程设计有限公司

业务范围：建筑行业建筑工程甲级（有效期至2003年8月18日）、水利行业（水库枢纽、城市防洪）甲级。

证书编号：190902-sj

有效期：至　年月　日

发证部门：

2002年二月17日

中华人民共和国建设部印制

(Translation)

Certificate of Engineering Design

Class A

Name of institute: Guangdong Province Zhurong Engineering Design Co., Ltd.

Business scope: Grade I of Construction Engineering in Construction Industry; Grade I of water resource industry (reservoir pivot, urban flood control).

No. of certification: 190902-sj

Term of validity: ***

Issuance Department:

Ministry of Construction of the People's Republic of China

Dated on 17th July 2002.

Issued by the Ministry of Construction of the People's Republic of China

Annex 2

广东省河源市物价局

关于河源市风光水电站上网电价成本初步测算的复函

紫金县东江风光沥口电站发展有限公司:

你单位送来的《关于要求对风光水电站上网电价进行成本测算的请示》收悉，根据《广东省定价目录》和广东省物价局、省经济委员会、省财政厅印发《地方电站上网电价作价原则》的通知（粤价[1995]50号）文件规定，对河源市风光水电站上网电价进行成本测算。经测算，上网成本电价为0.484 元/kWh(含税)。正式上网电价待工程投产后，再按国家的有关政策重新核定，并按规定报省物价局审批。

特此函复

二〇〇五年六月九日

(Translation)

Guangdong Provincial Heyuan Municipal Price Bureau

Reply letter on grid-in tariff cost calculation of Heyuan Municipal Fengguang hydropower project

Dongjiang Fengguang Likou Power Plant Development Co.Ltd:

The "*application relating to the grid-in tariff cost calculation of Fengguang hydropower station* " has been received. According to "*Guangdong Provincial Priced Catalogue* " and "*Notice on Principle of Pricing for the tariff of local station (Yuejia[1995]No.50)* " issued and distributed by Guangdong Provincial Price Bureau, Guangdong Provincial Economic & Trade Commission and Guangdong Provincial Finance Bureau, the grid-in tariff of Fengguang hydropower station was primarily calculated and approved to be 0.484yuan/kWh(Including VAT) based on cost calculation. The formal grid-in tariff will be checked and ratified after the proposed project being put into operation according to the related policy, and also should be submitted to Provincial Price Bureau for review and approval.

In reply

Guangdong Provincial Heyuan Municipal Price Bureau
(Stamp)
9th June 2005

Annex 3

广东省发展和改革委员会文件

粤发改农〔2005〕71号

关于河源市风光（横圳）水利枢纽工程可行性研究报告的批复

河源市发展和改革局：

你局河计农〔2004〕141号文及省水利厅关于河源市风光（横圳）水利枢纽工程可行性研究报告的审查意见（粤水规〔2005〕2号文）收悉。经研究，现批复如下：

一、风光（横圳）水利枢纽位于河源市境内东江干流上，坝址距离河源市区 11.3 公里，是《东江流域综合规划报告》及《东江干流梯级规划方案专题报告》中规划的东江河源～惠州市河段梯级开发方案中的第一个梯级。为缓解当地电力紧张状况、合理利用和调配水资源、改善航运条件和水环境，促进山区脱贫致富，同意建设风光（横圳）水利枢纽工程。

二、工程任务为以发电和承担新丰江水库反调节为主，兼顾航运和改善水环境。

三、工程等别为II等大（2）型工程，主要建筑物为3级，次要建筑物为4级，临时建筑物为5级；主要建筑物设计洪水重现期为30年，校核洪水重现期为100年，次要建筑物设计洪水重现期为20年，校核洪水重现期为50年。

四、工程规模：工程正常蓄水位初定为34.2米，电站装机容量为24.9MW；按满足流量150立方米/秒为控制条件，设立972万立方米反调节库容；船闸应满足V级航道要求，按通航300吨级船舶设计。主要建筑物为电站厂房、泄洪闸、连接土坝和船闸等。

五、工程项目由项目业主深圳市油富实业发展有限公司依法对枢纽工程进行投资建设和运营管理，工程防洪调度和水资源配置应服从水行政主管部门统一指挥。

六、工程估算总投资为49926万元。（其中：枢纽工程投资41122万元，水库淹没补偿费8724万元，电站送出工程投资80万元）。根据投资分摊结果，电站部分分摊投资30480万元，反调节12993万元，改善水环境2015万元，航运、交通1984万元，建设期还贷利息2454万元。省级水利投资对工程投资中反调节部分分摊给予补助8445万元，其余建设资金由当地政府和项目法人单位自筹解决。

七、工程招标核准意见见附件。

八、请项目建设单位据此进行工程初步设计，按基建程序报批

后动工建设。

附件：广东省工程招标核准意见表

抄送：省水利厅，河源市水务局，深圳市油富实业发展有限公司。

广东省发展和改革委员会办公室　　2005年2月3日印发

(Translation)

Document of Development & Reform Committee in Guangdong Province

Yue Fa Gai Nong [2005] No.71

The approval of the Feasibility Study Report (FSR) of Fengguang (Hengzhen) hydropower project in Heyuan City

The Development & Reform Bureau in Heyuan City:
We received the document (He Ji Nong [2004] No.141) of your bureau and the validation comments about the FSR of Fengguang (Hengzhen) hydropower project in Heyuan City from Provincial Water Resource Administration (Yue Shui Gui [2005] No.2) , now we approved as follows:

1. Fengguang (Hengzhen) hydropower project was located in the main stream of Dongjiang River in Heyuan City, 11.3km far from the urban area of Heyuan City. It is the first cascade of Cascade Developing Plan of Heyuan City - Huizhou City reach of Dongjiang river by "integrated planning report of Dongjiang River drainage area" and "thematic report of cascade plan of main stream of Dongjiang River". In order to alleviate the local electricity shortage, reasonably make use of and distribute water resources, improve shipping conditions and aquatic environment, and stimulate economic development of mountain area, the Fengguang (Hengzhen) hydropower project was agreed to be constructed.

2. The project tasks main focused on electricity generation and anti-regulation of Xinfengjiang reservoir, taking shipping and aquatic environment improvement into consideration.

3. It is a grade II, big (2) type project, the level of the primary constructions, secondary constructions, and temporary constructions are 3,4 and 5 respectively; the designed flood return period of the primary constructions is 30 years, and the checked flood return period is 100 years; the designed flood return period of the secondary constructions is 20 years, and the checked flood return period is 50 years.

4. Project scale: the normal water level of the project was 34.2 m, the installed capacity of the power station was 24.9 MW; water flow of 150 m^3/s was taken as the control condition, the anti-regulation reservoir capacity was set to be 9720000 m^3; the ship lock should fulfill the V level channel requirement, the shipping load was designed to be 300 ton. The primary construction of hydropower project includes power house, discharging sluice, connecting solid dam and ship lock etc..

5. The hydropower project was invested and constructed legally by the project owner, Youfu Fengguang Hydropower Developing Co.,Ltd., flooding control dispatching and water resources distribution of the project should obey the commands of Water Administration Department.

6. The estimated total investment of the project was 499.26million yuan (within which 411.22million yuan was project investment, 87.24million yuan were compensation fee for flooding, and 0.8 million yuan were transmission project of the power station). According to the result of investment allocation, the power station allocated 304.8million yuan, anti-regulation allocated 129.93 million yuan, aquatic environment improvement allocated 20.15million yuan, shipping and transportation allocated 19.84million yuan, and the interest of loans were 24.54million yuan). Provincial hydropower investment supplied 84.45 million yuan as allowance for the anti-regulation part of the project investment. The rest investment were prepared and solved by local government and the project owner.

7. The approval comments for the project bidding can be seen in the Attachment.

8. The project construction unit can process the project preliminary design accordingly, and start project construction after being approved by capital construction procedures.

Attachment: The approval comments table for the project bidding

3rd Feb. 2005

Send a copy to: Provincial Water Resource Administration, Water Board in Heyuan City, Youfu Fengguang Hydropower Developing Co.,Ltd in Shenzhen

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Development & Reform Committee Office in Guangdong Province

Issued on 3rd Feb. 2005

Annex 4

河源市物价局文件

河价〔2007〕113号　　签发人：谢雄鹰

关于河源市风光水站上网电价的请示

省物价局：

河源市风光水电站由河源市油富风光枢纽水电开发有限公司投资兴建，电站位于河源市境内东江干流上，距河源市区11.3公里，电站工程枢纽主要建筑物包括电站厂房、拦河闸坝、通航船闸、连接土坝、变电站及送出工程。电站设计总装机容量为

2.49 万 KW，多年平均发电量 15091 万 KWH，年平均售电量 13909 万 KWH，工程总投资约 62194 万元。电站于 2005 年 2 月由广东省发改委批准立项，同年 12 月动工兴建，可在 2007 年底投产发电。

根据《广东省定价目录》和广东省物价局、省经济委员会、省财政厅印发《地方电站上网电价作价原则》的通知（粤价[1995]50 号）文件规定，我局对风光水电站上网电价进行了测算，经市物价局审价委员会讨论，拟定河源市风光水电站的上网电价为 0.48 元/千瓦时，特上报省局审批。

以上请示当否，请批复。

附件：1、关于河源市风光水电站上网电价测算审核情况。

2、关于核准河源市风光水利枢纽工程电站上网电价的请示。

3、关于河源市风光（横圳）水利枢纽工程预计投资总额专项审核报告。

4、立项批准有关文件。

二〇〇七年十二月十一日

（联系人：刘绍棠，联系电话 0762—3889923）

主题词：电力　价格　请示

河源市物价局办公室　　2007 年 12 月 12 日印发

(Translation)

Document of Heyuan City Price Bureau

He Jia [2007] No.113 Issuer: Xiongying Xie

The Request for instructions of the grid-in electricity price of Fengguang hydropower station in Heyuan City

The Provincial Pricing Bureau:
Fengguang hydropower station was invested and constructed by Youfu Fengguang Hydropower Developing Co.,Ltd. The power station was located in the main stream of Dongjiang River in Heyuan City, 11.3km far from the urban area of Heyuan City. The primary construction of hydropower project includes power house, gate dam, ship lock, connecting solid dam, substation and transmission project. The designed total installed capacity of the power station is 24.9 MW, the average annual electricity generation is 150910 MWh, the annual grid-in electricity is 139,090 MWh, the total investment of the project is about RMB 621.94 million yuan. The project was approved by Development & Reform Committee of Guangdong Province in Feb.2005, and was started construction in Dec. 2005. The power station will start electricity generation by the end of 2007.

According to "the Pricing Catalogue of Guangdong Province" and "the inform of the pricing rules for the tariff of local power station" (Yue Jia [1995] No.50) issued by the Pricing Bureau of Guangdong Province, the Eocomony Committee of Guangdong Province, and the Finance Administration of Guangdong Province, we estimated the grid-in electricity tariff of Fengguang hydropower station. And it was proposed to be 0.48 yuan/kWh through discussion of the Price Auditing Committee of the Pricing Bureau in Heyuan City. Hereof the approval of the provincial bureau is requested.

Please approve the above request.

Attachments:
1. The estimation and validation of Tariff og Fengguang hydropower station in Heyuan City.
2. The request for approval of the grid-in electricity tariff of Fengguang hydropower station in Heyuan City.
3. The validation report of the estimated total investment of Fengguang hydropower project in Heyuan City.
4. Relevant documents of project establishment and approval.

11th Dec., 2007
(Contact person: Shaotang Liu, Tel.: 0762-3889923)

Key words: electricity, tariff, request

The Pircing Bureau Office in Heyuan City Issued on 12th Dec., 2007