

Response to the request for review for the CDM project activity
***“Guangzhou Zhujiang Power Plant Gas (LNG) Combined Cycle Project”* with the**
reference number 1828

Attention:
CDM Section

October 5th, 2008

Dear Sir or Madam,

We were informed that our project *“Guangzhou Zhujiang Power Plant Gas (LNG) Combined Cycle Project”* (Ref. no. 1828) was requested for review by CDM Executive Board. As required by the Board, we would like to answer the questions, clarify the issues and provide additional information, as follows.

Issue 1:

The determination of the project activity start date requires further substantiation, in particular it should be demonstrated that no contracts for equipment or fuel supply as well as a power purchase agreement (PPA) were entered into prior to 9 October 2005. (The DOE should provide more detail regarding how the evidence of prior consideration of the CDM has been validated as well as actions take to secure CDM status for the project in parallel with its implementation, taking note of the Guidance given by the Board at its 41st meeting (Annex 46)).

Response by PP:

In accordance with the Guidance given by the Board at its 41st meeting (Annex 46), detailed information regarding the timeline of the Project had been provided to and validated by DOE. PP would like to summarize the timeline of the Project, so as to make the readers to clearly understand the Project, as following:

03/09/2003	Compilation of the FSR of the Project by Guangdong Electric Power Design Institute. Guangdong Electric Power Design Institute, a design institute with the top level of qualification, was established in 1958, capable of a series of work such as investigation and design of large and ultra-large scale power generation project, consulting and engineering procurement and construction (EPC).
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June 2004	World Bank issued a report titled <i>Clean Development Mechanism in China - Taking a Proactive and Sustainable Approach</i> and held a dissemination conference in Beijing, P. R. China. The report and the conference stimulated PP's interest in CDM. The report can be downloaded from website: http://siteresources.worldbank.org/CHINAEXTN/Resources/318949-1121421890573/cdm-china.pdf .
14/12/2004	CDM decision of the Project was made in the Directorate Conference.
28/02/2005	<i>CDM Consulting Contract</i> was signed.
08/03/2005	The Project was approved by National Development and Reform Commission (NDRC) (Document No.FGNY[2005]349).
26/04/2005	<i>Equipment Procurement Contract</i> was signed.
09/10/2005	Construction started.
23/12/2005	<i>Fuel Purchase Contract</i> was signed.
08/08/2006	<i>Emission Reductions Purchase Agreement</i> was signed.
December 2006	The Project was submitted to the DOE for validation.

According to the definition of “the start date of a CDM project activity” provided in paragraph 67 of EB41 meeting report, the start date of the Project is now determined as 26/04/2005. The start date of the Project is prior to both 02/08/2008 and the date of publication of the PDD for global stakeholder consultation. According to *Guidance on the Demonstration and Assessment of Prior Consideration of the CDM* (Annex 46 of EB41 meeting), following evidences are provided to demonstrate the prior consideration of CDM of the Project:

- Memo of the Directorate Conference of Guangzhou Development Industry (Holding) Co., Ltd. – the shareholder of Guangzhou Zhujiang LNG Power Generation Co., Ltd. - held on 14/12/2004. This document had been translated into PDF and submitted along with the PDD submitted for registration.
- CDM Consulting Contract signed by the Project Owner on 28/02/2005. This document was translated into PDF and submitted along with this response as Annex 1.

Documents of the Project were submitted to the secretariat of CDM EB requesting for registration in April 2008, four months before EB41 meeting. This is the reason why the detailed information regarding the timeline of the Project was not provided in the PDD as per Guidance given by the Board at its 41st meeting (Annex 46).

According to the timeline described above, 26/04/2005 is deemed as the earliest date on which the actual action of the Project Activity commenced. Moreover, taking note of the Guidance given by EB at its 41st meeting (Annex 46), CDM was seriously considered in the decision to implement the Project.

All the documents mentioned above had been validated by the DOE and the following document is translated and provided as one of the PDF documents attached to this response.

Annex 1 - CDM Consulting Contract

Issue 2:

The DOE should provide more detail regarding how the input values used in the investment analysis have been validated to be appropriate, in particular that the applied tariff reflects a credible assumption at the time of the investment decision.

Response by PP:

The Project is located in Guangdong Province. The Feasibility Study Report (FSR) of the Project was completed by Guangdong Electric Power Design Institute and passed the evaluation by China International Engineering Consulting Corporation (CIECC) on 03/09/2003.

The input values used in the investment analysis in the PDD are principally based on the FSR of the Project. The FSR of the Project was finalized by an authoritative and independent third party viz. Guangdong Electric Power Design Institute and approved by government authority. Guangdong Electric Power Design Institute, a design institute with the top level of qualification, was established in 1958, capable of a series of work such as investigation and design of large and ultra-large scale power generation project, consulting and engineering procurement and construction (EPC). As per the Guidance given by EB at its 38th meeting paragraph 54, the FSR of the Project is a reliable data source for the investment analysis of the Project.

The input values obtained from the FSR have been carefully checked and are listed in Table 6 of the PDD. Those data are not replicated here for simplification. In Table 6 of the PDD, only the bus-bar tariff and the LNG price were obtained from data sources other than the FSR.

Bus-bar tariff: The value adopted in the PDD is 0.571 RMB/kWh (including VAT) or 0.488 RMB/kWh (not including VAT), which is the actual bus-bar tariff issued by government authority for the Project in later 2007. The source of this value which has been validated is *Approval on the Bus-bar Tariff of LNG Power Plants within Guangdong Province* (Document No.YJH[2007]397). In the FSR, the peak, average and valley electricity tariff in Guangdong Power Grid (including VAT) was 0.486 RMB/kWh, 0.368 RMB/kWh and 0.162 RMB/kWh respectively. In the PDD, the approved bus-bar tariff was adopted in the investment analysis to reflect the actual situation of the Project and for conservativeness.

LNG price: The LNG price has kept increasing for years. The LNG price adopted in the FSR

is 1.45 RMB/m³ (including VAT). When the bus-bar tariff of the Project was approved, the LNG price (including VAT) actually paid by the Project Owner was 1.60 RMB/m³ (not including VAT) according to the LNG Receipt of that time. The LNG Receipt actually paid by the Project Owner at that time was adopted in the investment analysis to reflect the actual situation of the Project.

Based on the parameters and assumptions provided in the FSR, the actual bus-bar tariff and the actual LNG price in later 2007, the project IRR of the Project is 5.43% as provided in the PDD submitted for registration. If the input values of the investment analysis of the Project were all obtained from the FSR, i.e. the highest bus-bar tariff of Guangdong Power Grid (0.486 RMB/kWh) and the LNG price provided in the FSR (1.45 RMB/m³) were adopted in estimating the project IRR of the Project, the project IRR will be decreased to be 4.37%. The conclusion of FSR is that “the Project needs financial support from other aspects to achieve economic benefits.”

Since 4.37% is a little lower than 5.43%, the higher one is adopted in the PDD to ensure conservativeness in the investment analysis.

All the documents mentioned above had been validated by the DOE and the following documents are translated and provided as part of the PDF documents attached to this response:

Annex 2 - LNG Receipt

Annex 3 - *Approval on the Bus-bar Tariff of LNG Power Plants within Guangdong Province* (Document No.YJH[2007]397).

Annex 4 - IRR calculation sheet according to data in FSR

Issue 3:

The DOE shall confirm how the applicability of the methodology has been validated, in particular that the implementation of the project will not limit natural gas based power capacity additions in the region.

Response by PP:

Applicability of the methodology AM0029 was analyzed in Section B.2 of the PDD and had been validated by DOE. For clearer understanding, PP would like to summarize the analysis as follows:

Applicable conditions of the methodology AM0029	The Project
The project activity is the construction and operation of a new natural gas fired grid-connected electricity generation plant ¹ .	The Project Activity is the construction and operation of a new natural gas fired grid-connected electricity generation plant and no other fuel besides natural gas is used in the Project. Therefore, the Project meets the applicability requirement of the methodology AM0029.
The geographical/ physical boundaries of the baseline grid can be clearly identified and information pertaining to the grid and estimating baseline emissions is publicly available.	Electricity generated by the Project will be supplied to China Southern Power Grid. With reference to <i>Notification on Determining Baseline Emission Factor of China's Grid</i> issued by China's DNA on 09/08/2007 on http://cdm.ccchina.gov.cn/web/NewsInfo.asp?NewsId=1889 , the geographical/physical boundaries of China Southern Power Grid can be clearly identified and information pertaining to the grid and used to estimate baseline emissions is publicly available. Therefore, the Project meets the applicability requirement of the methodology AM0029.
Natural gas is sufficiently available in the region or country, e.g. future natural gas based power capacity additions, comparable in size to the project activity, are not constrained by the use of natural gas in the project activity ² .	LNG used by the Project is produced in Australia and supplied by Guangdong Dapeng LNG Company. Guangdong Dapeng LNG Company will annually import 3.7 million tons of LNG from Australia's Northwest Shelf gas development project over the next 25 years based on the signed take-or-pay (ToP) long-term contract between them. Guangdong Dapeng LNG Company has also signed take-or-pay (ToP) long-term contracts (25 years) with all of its demand consumers with quantified fuel supply obligation ³ . Of all the consumers, LNG consumed by the Project Owner accounts for about 8% of the total LNG supply. Such long-term contract along the LNG chain ensures that there is no supply constraint because all the LNG demands have been contracted. Therefore, future capacity additions of LNG power generation project with a commensurate scale to the Project will not be restricted due to the utilization of LNG by the Project. Therefore, the Project meets the applicability requirement of the methodology AM0029.

As summarized above, the Project fulfils all the applicable conditions of the methodology AM0029.

In addition, the annual LNG contracted volume in Guangdong province had been validated by the DOE. The LNG supply to each LNG consumer, including power plants and residents, was

1 Natural gas should be the primary fuel. Small amounts of other startup or auxiliary fuels should be used, but can comprise no more than 1% of total fuel use.

2 In some situations, there could be price-inelastic supply constraints (e.g. limited resources without possibility of expansion during the crediting period) that could mean that a project activity displaces natural gas that would otherwise be used elsewhere in an economy, thus leading to possible leakage. Hence, it is important for the project proponent to document that supply limitations will not result in significant leakage as indicated here.

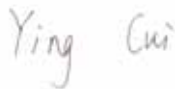
3 This had been validated by DOE.

quantified and confirmed in the form of contract.

These facts prove that the future capacity additions of LNG power generation projects with a commensurate scale to the Project are and will not be restricted due to the utilization of LNG by the Project.

With the above clarification, explanation and supplementing information, we hope that the CDM Executive Board would be satisfactory and would approve the registration of *“Guangzhou Zhujiang Power Plant Gas (LNG) Combined Cycle Project”*.

Yours sincerely,



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