

March_10, 2008

For CDM Executive Board

Japan Consulting Institute (JCI)

**Response to the request for review of "Comprehensive utilization of waste coal gas for electricity generation project in Shaanxi Xinglong Cogeneration Co. Ltd" (1397)
Issued by CDM Executive Board**

Dear CDM Executive Board Members,

JCI was informed by the secretariat that the CDM project activity (No. 1397)"Comprehensive utilization of waste coal gas for electricity generation project in Shaanxi Xinglong Cogeneration Co. Ltd".

The request for review by the four Board Members as follows and JCI's:

Responding to the request for review, JCI would like to supplement the description of the validation report referring to the evidential documents to which we have referred for the validation.

Remarks: In the following description, the suffixes attached to the referenced evidential documents are listed in the attached Document List and are the same as those in the validation report.

Request for review 1:

The DOE is requested to describe how the input values used in the investment analysis have been validated, in particular the transfer price of the waste gas since it is obtained from an affiliate company and was flared in the pre-project scenario

JCI's Answer:

As for the demonstration and assessment of additionality of the project activity, the project participant (PP) went through the following steps in accordance with "Tool for the demonstration and assessment of additionality (Version 03)

<STEP 1. Identification of alternatives to the project activity consistent with mandatory laws and regulations> → <STEP 2. Investment analysis> → (STEP 3. Barrier analysis: additional step assessed) → <STEP 4. Common practice analysis>

As the investment analysis was assessed first in the steps and proved most critical for the

implementation of the project activity in PDD, we have conducted the validation of the step with much caution. As the analysis was based on "Feasibility Study Report by CSRI January 2006" ^{/25/}, we had reviewed it with much care and with the in-house data especially of the parameters used for "Sub-step 2c. Calculation and comparison of financial indicators" including the price of blast furnace gas (BFG) and converter gas (LDG) and all other items including total investment, O& M, operation time self-use rate, electricity tariff, and various taxes.

As we were much concerned with the price of BFG and LDG, we confirmed first that the contracted price of the gasses between the two companies of the project participant "Shaanxi Xinglong Cogeneration Co. Ltd" who buys the gasses and generates/sells electricity and "Longmen Iron & Steel Group Co. Ltd." which produces/ sells the gasses and buys the electricity by means of the contract documentation between the companies "Purchase Agreement between Shaanxi Xinglong Cogeneration Co. Ltd. and Shaanxi Longmen Iron & Steel Group of Blast Furnace Gas (BFG) and Converter Gas (LDG), Dec.2006" ^{/26/}.

Next the relevancy of the price of the gasses was assessed based of the data provided by the PP which are shown in the table below.

Items	Price	NCV	Price per unit of energy
Coal	500 yuan/t	26344 kJ/kg	18.98 yuan/GJ
Natural gas	1.75 yuan/Nm ³	38931 kJ/Nm ³	44.95 yuan/GJ
BFG	0.064 yuan/Nm ³	3559 kJ/Nm ³	17.98 yuan/GJ
LDG	0.080 yuan/Nm ³	6691 kJ/Nm ³	11.96 yuan/GJ

Remarks: Sources of the price of fuels

The price of coal is based on the information from the PP which is based on annually weighted average Year 2006 and the price of natural gas is based on the information from the local Development and Reform Committee (Document No [2005] 2756).

The exchange rate in 2005 was in-between 0.121 and 0.124 USD/yuan

Though it may not necessarily be reasonable to compare the price of BFG and LDG with that of coal which is most common commercialized fuel in the province and natural gas as there is not commercially standardized price available for BFG and LDG which have not been commercialized commodities, it is clearly shown that the price of the gases is evaluated cheaper than coal and much cheaper than natural gas indicating the appropriateness of the price level and the investment analysis.

Next the business relation between the company of the PP "Shaanxi Xinglong Cogeneration Co. Ltd" and "Longmen Iron & Steel Group Co., Ltd." was assessed at the occasion of onsite assessment and it was confirmed that both companies are independent each other in operation including corporate management and financial management.

We would like to revise the validation report reflecting the important part of the above description.

Request for review 2:

The financial and technological barriers have to be substantiated and the common practice analysis must explore similar activities at least at the regional level.

JCI's Answer:

As the Investment analysis is adopted for assessment and demonstration of additionality, it is allowed to skip Barrier analysis. Barrier analysis is carried out additionally to show other barriers.

1) The financial and technological barriers

JCI has judged that the barrier analysis has been conducted by the PP in an appropriate manners described below.

(1) Investment barriers other than the economic / financial barriers in Step 2 of the tool

Because that the project activity is the first and only one of the kind in the province, It is expected that there will be the following investment barriers against the implementation of the project activity.

Remarks: A province In China is not only geographically large as a foreign country, but also is rather independent even of neighbor ones in the economic and political systems.

- Owing to the technological difficulties expected due to no similar experience, the difficulty for raising the fund especially getting loans from banks for the project activity is beyond the expectation.
- Actually the shortage of the fund is covered by the special fund raised by the staffs partially and by increasing the shareholders with the expected assistance from CDM.

(2) Technological barriers

It is expected that there will be the following technological barriers against the implementation of the project activity because that the project activity is the first and only one of the kind in the province.

- Skilled and/or properly trained work force will not be available for proper operation and maintenance of the project plant, which may cause unacceptably high risk of equipment

disrepair and malfunctioning or other underperformance.

- Lack of infrastructure for implementation and logistics for maintenance of the equipment will occur.
- Risk of technological failure such as the process/equipment failure risk will be significantly greater than for other technologies/equipment that provide services or outputs comparable to those of the proposed project activity as publicized by manufacturers.

2) The common practice analysis

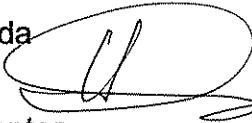
JCI has judged that the common practice analysis has been conducted by the PP in an appropriate manner as described below.

(1) Common practice analysis

- As the project activity is the first and only one in its kind, there is no similar project activity in the region. More accurately speaking, it is described that there is a smaller iron manufacturing factory in the province which is not provided with such equipment as a waste gas recovery / utilization equipment in "China Energy Statistical Yearbook 2005".
- In China, the experience in a province has basically nothing to do with that of other provinces, that is, a common practice in a province cannot necessarily be a common practice in other provinces. Therefore comparison of practice in a province with that in other province might not be meaningful. Nevertheless, the experience of similar project activities in the adjacent northwestern provinces including Shaanxi, Gansu, Ningxia, Qinghai and Xinjiang was surveyed referring to a publication "China Energy Statistical Yearbook 2006" and it was confirmed that there was no similar project activity in those provinces except one which recovered the waste gas and utilize for heating but not for power generation.
- As the above it was confirmed that the proposed project activity was not common practice in the region.

The above is the description supplementary to the validation report in response to the request for review from CDM Executive Board. We believe that Executive Board recognizes that substantial validation which satisfies the CDM requirement has been conducted by JCI.

Sincerely yours,

for Masaki Okada  *H. Sato*

JCI CDM Center
 Unit Manager, Evaluation Group
 TEL. 81-3-3222-8100
 FAX. 81-3-3222-8101
 Email okada-cdm@jci-plant.or.jp

List of reference documents

/25/	Feasibility Study Report by CSRI January 2006
/26/	Purchase Agreement between Shaanxi Xinglong Cogeneration Co. Ltd. and Shaanxi Longmen Iron & Steel Group of Blast Furnace Gas (BFG) and Converter Gas (LDG), Dec.2006