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	Werner Betzenbichler	Werner.Betzenbichler@tuev-sued.de			

Request for Review

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 1319. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Werner Betzenbichler
Carbon Management Service

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Response to the CDM Executive Board

Issue 1:

Further clarification is required as to how the DOE has validated the evidence of prior consideration of the CDM to proceed with the project activity

Response by PP:

The relevant references/documents on how the CDM was considered before the project activity was implemented were provided to DOE.

On 1st December 2004, as a major annual event in the coal mining industry in China, the 4th International Symposium on CBM/CMM was held in Beijing China. On the symposium, CDM was a major topic of a way to encourage coalmines to utilize CMM. After the symposium, the concept of CDM was spread around major Shanxi coal mining groups. Shanxi Coal Transport Market Head Quarter Co., Ltd. Yangquan Branch Co., Ltd. (Project Owner) started to consider implementing its CMM utilization project with the assistance from CDM. (Annex 1)

Learned more on CDM, Project Owner held a board meeting on 16th August 2005 and decided to implement CMM utilization project with CDM assistance (Annex 2). Meanwhile, Project Owner started to look for qualified CDM consultant. Hence, on 12th September 2005, Project Owner signed "CDM Cooperation Protocol" with Yangquan Project Appraisal Consultant Corporation (Annex 3).

Then on 30th November 2005, Project Owner signed the CMM gas boiler contract with Yangquan Jiangong Normal Pressure Boilers Company (the boiler supplier) and started the project. (Annex 4)

In conclusion, the CDM was seriously considered prior to commence of the project.

Response by TÜV SÜD:
The above explanation and the translation of the evidences can be confirmed by the DOE.

Issue 2:

Further clarification is required as to how the DOE has validated the applicability of the benchmark, and the input values in the investment analysis, in particular, the callback of capital assets on the 14th year of the analysis, i.e. whether it is the terminal value of the asset and fully accounts for the present value of the cash flow for the remainder of the life of the project.

Response by PP:

The relevant references on how the benchmark rate was selected were provided to DOE. According to *"Productivity in the UK 5: Benchmarking UK productivity performance"* published by Department of Trade and Industry and HM Treasury, the hurdle rate for average large industry is 13.5%. (Annex 5) In addition, *"Cost of Capital by Sector"* on http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.htm shows that the average cost of capital in the energy related sectors is 8.99% and the survey made by *"Corporate Finance"* suggests that a risk premium would be added to project investment in China to approximately 5%, thus the IRR requirements for such projects in China would be 13.99%. (Annex 6)

Moreover, *"Economic Evaluation Code and Parameter for Construction Project (Version 03)"* published by China NDRC and National Construction Committee suggests that the latest benchmark IRR (after tax) for mining and mineral separation industry in China is generally 15%. (Annex 7)

Among the above IRR values, 13.5% is the lowest one. So use of 13.5% as the benchmark rate of this project is considered to be conservative.

We apologize for the mistake on a radix point. The right callback of capital assets on the 14th year should be 90.58 x 10^{4} USD. Meanwhile, the "Operation Cost" should not include the depreciation of capital assets and amortization values. Please refer to the revised spreadsheet for the correct project IRR calculation. (Annex 8)

In the revised PDD, please find the corrected Project IRR, IRR of scenario iv and the sensitivity analysis.

Response by TÜV SÜD:

The answer of the PP is reasonable and has been verified by the DOE. Another commonly used document published by the State Power Company states an IRR benchmark for the coal mining industry of 15% as well. Hence, the DOE has considered the proposed benchmark to be conservative. As there is no guideline by the EB what kind of benchmark can be used (international or domestic) this approach seems to be justified. The Source data and the revised project IRR calculation can be confirmed and deemed correct by the DOE.

Issue 3:

The PP shall further substantiate and clarify sub-step 2c Calculation and comparison of financial indicators of the PDD.

Response by PP:

In sub-step 2c, IRR of the proposed project is compared with benchmark IRR.

Applicability of benchmark IRR of 13.5% is clarified in the response to Issue 2.

All data is completely and transparently referred from the project feasibility study report approved by the local government.

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The comparison of financial indicators is listed as follows:

	IRR without CDM	IRR with CDM
Yangquan Project	2.19%	32%
Benchmark IRR	13.5%	

The project IRR calculation spreadsheet (with and without CDM) has been provided to DOE. The detail indicators for IRR calculation has been reflected in the revised Sub-step 2c.

Response by TÜV SÜD:

The answer of the PP can be considered as reasonable.

Issue 4:

The DOE shall further clarify how they have assessed and verified the sensitivity analysis and the validity of its assumptions.

Response by PP:

Four key parameters have been chosen as sensitive elements to test the financial attractiveness of the project.

i. Total investment
ii. Operation cost
iii. Annual power supply
iv. Electricity price

Firstly, it is reasonable to believe that total investment and operation cost would not decrease, since price level represented by Consumer Price Index (CPI) in China has been increasing sharply these years especially in 2007. CPI of first 3 quarters in 2007 averagely increased 4.2% compared with the same period in 2006. (1) Price index of industrial products also increased more than 2% in 2007. (2) Therefore, it is reasonable to believe that Total investment and operation cost would not decrease in the foreseeable future.
(1) http://www.lgmi.com/html/200710/25/9858.htm
(2) http://www.stats.gov.cn/was40/gjtjj_outline.jsp?page=1&channelid=19761

The annual power supply would not increase since the calculation is based on the full load of the generators. Before the project started, Project Owner had studied carefully on the generators chosen. Annual operation hours of the generators would not exceed 6000 hours in the long run. As CMM power generation is a new technology, no supplier could guarantee the engine's stable operation for a long time.

As described in PDD, the electricity price change's influence on IRR is the same as that of annual power supply. The electricity selling price set in the power purchase agreement (PPA), which was signed on December 28, 2006 between the Project Owner and the local grid company, is 0.256Yuan/kWh (Annex 9). As announced by China NDRC this December, the electricity price would not increase in the foreseeable future.
http://news.xinhuanet.com/fortune/2007-12/13/content_7242974_1.htm

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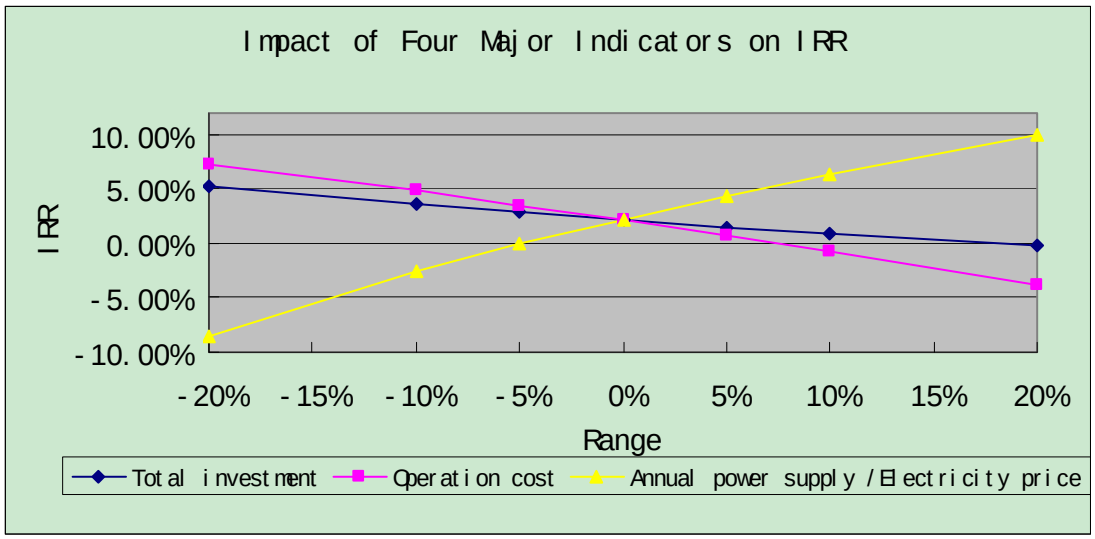
Moreover, to further ensure the conservativeness, we even conducted the sensitivity analysis with the four parameters fluctuating between -20% and +20% instead of between -10% and +10%. It can still be concluded that the project IRR is lower than the benchmark IRR. (Refer to the table below)

	-20%	-10%	-5%	0%	5%	10%	20%
Total invest-ment	5.26%	3.62%	2.88%	2.19%	1.54%	0.93%	-0.20%
Operation Cost	7.29%	4.82%	3.53%	2.19%	0.80%	-0.65%	-3.79%
Annual power supply / Elec-tricity price	-8.46%	-2.56%	-0.08%	2.19%	4.30%	6.28%	9.94%



Revised sensitivity test for project IRR and scenario iv IRR are both provided in the revised PDD.

Response by TÜV SÜD:

The answer of the PP can be considered as reasonable and sufficient. The above references to Chinese websites have been checked and verified to contain the claimed information.

Issue 5:

The PP shall further clarify how they propose to address the difficulties as stated in page 20 of 67 of the PDD:" In addition, the complicated geological conditions in China coalmine areas make the CMM utilization and management difficult. There are many unsolved problems both in theory and technique, the security research on some fundamentally key technology and equip-ment lacks the support in human resources, infrastructures and necessary funds".

Response by PP:

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The difficulties mentioned in the PDD are referenced from the following study:

Guojuanyan, Jiangdongxiang and zhaogang, CMM Power Generation Technology and Status quo in China, page 153, Proceedings of the 4th International Symposium on CBM/CMM in China, November 2004 (Annex 10)

As analyzed in step 4a of Common Practice, the above mentioned difficulties preventing CMM utilization projects' implementation are common in China. Current CMM extraction practice in China from underground coal mine would lead to unstable CMM concentration and sometimes discontinued gas supply due to the complicated geological condition, which will definitely affect the operation of generators. The unstable gas sources both in flux and concentration would impose higher risks on the project return. All registered CMM CDM projects such as in Anhui Huaibei (0770), Anhui Huainan (0840), Jiangxi Fengcheng (1135), Shanxi Yangquan (0892) and Shanxi Linlin (1230) faced the same problem.

Back to the proposed project, it can be easily seen as stated in the investment analysis sub-step 2c that the high revenue of CDM could increase the project IRR to 32%, which is much higher than the benchmark IRR of CMM power generation. Hence, the project owner is able to obtain higher revenue through CDM to minimize the risk of low project return. Moreover, CDM revenue can be invested in better gas engine maintenance and to acquire professional services the project owner lacks.

Response by TÜV SÜD:

The answer of the PP can be considered as reasonable and sufficient.

PP answer prepared by:

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