DET NORSKE VERITAS

UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D-53153 Bonn
Germany

Att: CDM Executive Board

DET NORSKE VERITAS
CERTIFICATION AS

Veritasveien 1
N-1322 Høvik
Norway
Tel: +47 6757 9900
Fax: + 47 6757 9911
http://www.dnv.com

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Response to request for review
"Power generation from coking waste heat utilization project at Qinyuan County Mingyuan Coal and Coke Co., Ltd in Shanxi, China" (1720)

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by three Board members concerning DNV's request for registration of the "Power generation from coking waste heat utilization project at Qinyuan County Mingyuan Coal and Coke Co., Ltd in Shanxi, China" (1720), and we would like to provide the following response to the issues raised by the requests for review.

Comment 1:

Considering that the investment being made is in the power industry, further substantiation that the benchmark reflects the risk profile of this project activity is required.

DNV Response:

As stated in our validation report, the benchmark chosen for the project activity is the benchmark financial IRR for the coking industry as per the *Economic Assessment Method and Parameters for Project Construction* 03 edition (2006), hereafter referred to as "Economic Assessment Methods".

The "Economic Assessment Methods" states that when a project owner invests in a project with key characteristics of another sector rather than its own core business, the sectoral benchmark IRR of its own core business should be applied[1]. Although the proposed project is a power generation project, given that the core investment focus of the project owner is the coking industry, the sectoral benchmark of the coking industry was adopted (12% IRR). This benchmark was considered adequate by DNV, even though the sectoral benchmark of the coking industry is higher than the sectoral benchmark of the power industry. The project owner has little experience in power generation adding significant risk to the investment decision. It is our opinion thus reasonable to assume that the project owner would expect at least the same returns as they would normally expect from an investment in their core business than investing in power generation. Furthermore, since the project relies on the coking facility's production output to be maintained to generate electricity, the proposed project is exposed to similar risks as the coking industry would face and the sectoral benchmark of power industry should not apply.

Comment 2:

Further clarification is required on how the DOE has validated the baseline determination in particular, (a) import of electricity from the grid as an alternative baseline scenario, since it is the current practice and will not change during the implementation of the project activity, and (b) that the

[1] Methods and Parameters for Economic Assessment of Construction Project (version 3), published by China's National Development and Reform Commission and Construction Ministry, December 2006, paragraph 2, point 2, page 197.

continuation of grid electricity imports is more economically attractive alternative than the project activity undertaken without CDM.

DNV Response:

a) During interviews with representatives for Economic Development Section of The Development and Reform Commission of Shanxi Province on 18 April 2008, and communication with Trading Emissions PLC, DNV was able to confirm that the current practice at the coking facility was the import of electricity from the North China Power Grid, and the release of the waste heat from the coke production to the atmosphere. This was also confirmed by a statement from the independent consultant Mott McDonald who performed due diligence of the project for one of the project participants. Furthermore, the Feasibility Study Report (FSR) confirms that the waste heat from the production was released to the atmosphere and the electricity used on site was imported from the grid. The latter was also verified by checking the invoices from the grid company that provided electricity prior to the start of the project activity.

DNV would like to emphasize that in both the baseline scenario and the project activity, electricity is imported from the grid, the difference being the use of waste heat. As confirmed during interviews with local representatives of the Development and Reform Commission, Shanxi, there are no other facilities in close vicinity for the project which could utilize the waste heat. Hence, the waste heat was released to the atmosphere before the starting date of the proposed project activity. As further clarified in b) below, the project activity undertaken without CDM is not financially attractive as its project IRR is below the benchmark selected for the project. The continuation of import of electricity from the grid and release of the waste heat to the atmosphere requires neither additional investments nor financial or technological risks, and is deemed the most probable baseline scenario.

b) As stated in our validation report, the proposed project activity without CDM has an IRR of 8.19% and is not economically attractive when compared to the relevant coking industry benchmark of 12% as explained in our response to comment 1 above. Therefore, the baseline scenario is that the project owner will continue to buy electricity from the grid and emit waste heat in the atmosphere.

The demonstration of additionality is in line with the "Tool for the demonstration and assessment of additionality" and the EB 39 Report Annex 35 guidelines as further explained below. Following sub-step 2(a) of the tool, since the proposed project generates financial and economic benefits through the sale of electricity other than CDM-related income, the simple cost analysis (Option I) was not applicable. The investment comparison analysis (Option II) should be applicable to the projects where similar investment alternatives are available. However, since the proposed project activity without CDM is not economically attractive, Option II was also excluded and the benchmark analysis (Option III) was chosen to confirm the project's additionality.

It should be noted here that the EB 39 Report Annex 35 "*Guidance on the assessment of investment analysis*" provides further relevant guidance stating that in a situation such as this project activity, an investment comparison analysis is not appropriate as the alternative to the project activity is to make no investment and import electricity from the grid:

"*If the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services, a benchmark analysis is not appropriate and an investment comparison analysis shall be used. If the alternative to the project activity is the supply of electricity from a grid this is not to be considered an investment and a benchmark approach is considered appropriate.*"

Since one of the alternatives to the project activity is continued import of electricity from the grid, the project developer's decision should be to invest in the project activity or not invest (i.e., the project developer does not require the project activity to provide its limited electricity demand as it can be sourced from the grid). The following elaboration in the aforementioned EB 39 Report Annex 35 is also found relevant:

"*The benchmark approach is therefore suited to circumstances where the baseline does not require investment or is outside the direct control of the project developer, i.e. cases where the choice of the developer is to invest or not to invest.*"[2]

However, in order to further illustrate that continuation of grid electricity imports is more economically attractive than the project activity undertaken without CDM, a comparative NPV calculation has be conducted by the project proponent and reviewed by DNV. The comparative calculation adopted here is based on calculation of the NPV between a) "*The project activity undertaken without CDM*" and b) "*Continuation of grid electricity imports*":

a) "*The project activity undertaken without CDM*": In the NPV calculation for this alternative scenario all of the coking facility's electricity production is exported to the grid. The electricity requirement for the coking facility is then purchased back from the grid. The NPV for "The project activity undertaken without CDM" has been calculated to be minus 70.7 million RMB.

b) While for the "*Continuation of grid electricity imports*", the calculation of the NPV is based on the following assumptions:

- the project owner cannot find an alternative investment which is more economically attractive than the project activity undertaken without CDM, and
- the project owner's capital lays dormant.

These assumptions are considered conservative by DNV. The NPV for the "*continuation of grid electricity imports*" based on these assumptions has been calculated to be minus 47.5 million RMB.

The result of the comparative NPV calculation thus indicates that the "*continuation of grid electricity imports*" is more economically attractive than the "*project activity undertaken without CDM*". This forms the basis for the baseline scenario to be the "*Continuation of equivalent import of electricity from North China Power Grid*" without the use of waste heat for electricity production.

We sincerely hope that the Board accepts our above explanations.

Yours faithfully
for DET NORSEK VERITAS CERTIFICATION AS

Michael Lehmann

Michael Lehmann
Technical Director
Climate Change Services

[2] EB 39 Report Annex 35 "Guidance on the Assessment of Investment Analysis"