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Request for Review

Dear Sir or Madam,

Please find below the response to the review formulated for the CDM project with the title "Duerping Coal Mine Methane Utilization Project" with the registration number 1900. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Javier Castro
Carbon Management Service

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Response to the CDM Executive Board

Issue 1

The DOE shall clarify how it has validated that the input values used in the investment analysis are appropriate in the economic context of the underlying project activity considering that the: (a) key input values (such as discount rate, maintenance/education tax rates, static total investment, maintenance costs, annual inflation of 2.5% and operating hours) do not appear to be consistently applied between PDD, investment analysis and emission reduction spreadsheets; this clarification should follow the guidance provided in EB 38 paragraph 54.b.; and (b) the electricity tariffs are assumed to be fixed for the entire investment period without any justification.

AND

Issue 2

The PDD (p.13), stipulates tax incentives for projects in China that drain and utilize methane, however the PP/DOE has not evaluated and validated the impact such tax incentives on the investment analysis.

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Referring to Issue 1a

Response by TÜV SÜD

TÜV SÜD performed a thorough review of the input values used in the investment analysis by comparing the values given in the PDD with the values applied in the investment analysis spreadsheet and the emission reduction calculation spreadsheet.

There appear to be some inconsistencies between the applied value for the discount rate, the city maintenance and education tax rates, the static total investment as well as the maintenance costs indicated in the PDD and the "IRR with CER" calculation spreadsheet of the investment analysis spreadsheet. These inconsistencies were removed and a revised investment analysis spreadsheet is submitted as an attachment to this response. However, the revision of the "IRR with CER" spreadsheet has no impact on the additionality of the proposed project activity. The revised "IRR with CER" is still above the benchmark, hence clearly indicates that CDM would help to overcome the financial issues that the project is facing without any CER revenues.

Operating hours were slightly higher in the emission reduction calculation spreadsheet compared to the hours indicated in the PDD (section B.4 and B.5) and applied for the investment analysis ("IRR with CER" sheet). This inconsistency was also removed by applying a consistent value of 7000 hours throughout the revised PDD as well as for the revised emission reduction calculation spreadsheet. The emission reduction figures were also adjusted in the revised PDD that is submitted as an attachment to this response.

In addition, inflation was removed from the investment analysis in order to be consistent. For the discussion on the inflation please also see the responses to 1b.

As indicated by the project participants, the refurbishment costs now include an exchange rate adjustment. TÜV SÜD evaluated this adjustment, and confirms that the indicated source (i.e. Global Insight) is reliable. In addition, the adjustment was cross-checked with the exchange rate observed throughout the last eight years between the Euro and the Chinese Yuan Renminbi as demonstrated by the FX Oanda Currency Converter (www.oanda.com) and the applied rate can be considered as reasonable and valid.

In summary, TÜV SÜD confirms that the input values indicated in the revised PDD are fully consistent with the revised associated calculation sheets attached to this response. Furthermore, TÜV SÜD also confirms that the applied values are consistent with the values indicated in the FSR. The only positions where the PPs updated FSR data to more actual data comprise the tariff and the static total investment costs. However, as already discussed in the validation report, the applied values are appropriate and valid and were also known at the time of the investment decision.

As a result, TÜV SÜD ensures that the requirements of EB38,§54 are fully met for this proposed project activity.

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Referring to Issue 1b

Response by TÜV SÜD

TÜV SÜD was further requested to clarify why the applied electricity tariff was assumed to be fixed for the entire investment period without any justification.

First of all, TÜV SÜD confirms that the investment calculations were following all guidelines and rules issued by the EB at the time the actual validation work was performed (i.e. before July 2008). In addition, TÜV SÜD further confirms that the investment calculations are also in line with most recent EB rules and guidelines such as EB41, Annex 45. According to No. 6 of EB41, Annex 45, “Guidance: Input values used in all investment analysis should be valid and applicable at the time of the investment decision taken by the project participant. … Rationale: …This decision will therefore be based on the relevant information available at the time of the investment decision and not information available at an earlier or later point. …”.

The input values used for this investment analysis were valid and applicable at the time of the investment decision. In addition, as per further explanation in the guidance, no information from a later point should be the basis for the investment decision. However, the application of non-fixed, fluctuating input values would not be in line with this guidance, because at that time, any information on the variation of these input values over the following 20 years was simply not available. TÜV SÜD also considers it as highly impossible to reasonably forecast the values of these figures for the next 20 years, based on the information given at the time of the investment decision.

The investment analysis calculations performed as part of the FSR and also as part of the PDD follow the Chinese Economic Evaluation Code. This document clearly indicates that constant values should be applied for the financial evaluation of a project. This further demonstrates that the application of fluctuating input values, i.e. increasing electricity tariff would not be in line with the applied guidelines and national standards. Based on local and sectoral expertise, TÜV SÜD can confirm that this code is widely applied in China, and that all feasibility studies in this sector are based on fixed input values.

Furthermore, as also indicated by the project participants, the application of incrementing input values for the tariff would also require considering increasing values for other parameters such as O&M costs during the given period to compensate for inflation. As an alternative approach, the project participants evaluated the impact on the NPV/IRR with varying 20 year average inflation rates in electricity prices and O&M costs between 0% and 10%. TÜV SÜD performed a thorough review of the statistical evaluation and confirms that the results are correct (see attached Excel spreadsheet with variable inflation rates).

The results of this evaluation on varying inflation rates indicated that the proposed project activity would only become financially attractive if the electricity price increased at a faster rate than the O&M costs over a 20 year period. However, based on TÜV SÜD’s local and sectoral expertise as well as based on trends observed in the past for various provinces in China, O&M costs typically increased at a faster rate than electricity prices, which are regulated by the government, which results in negative NPVs indicating that the project is expected to remain financially unattractive.

As further indicated by the results of this approach of varying inflation rates, the project would also become financially attractive if a consistent inflation rate of around 5% was applied to the O&M costs as well as to the electricity price throughout the 20 years. However, as mentioned above, this scenario is highly unlikely given the fact that O&M costs tend to increase at a faster rate than the electricity price. In addition, if O&M costs' rate of increase would grow by only 0.1% faster than the tariff's rate of increase, the project would remain financially unattractive in any case.

Based on the published data by Global Insight (www.globalinsight.com), which can be considered as a reliable source, an average inflation rate of 3.3% was forecasted for China between 2007 and 2027. Given this inflation rate applied on the electricity price as well as on the O&M costs, the project would still be financially unattractive, i.e. remain additional.

In summary, TÜV SÜD confirms that the proposed project activity is facing financing and investment issues in any case. The application of a fixed tariff as well as the application of reasonable increments on the tariff and O&M costs still results in negative NPVs and IRRs below the benchmark, hence the project is not economically attractive and therefore additional.

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Referring to issue 2

Response by TÜV SÜD

In response to the second question of the request for review, TÜV SÜD evaluated the impact of tax incentives on the investment analysis.

The applied benchmark of 12% is indicated as a pre-tax benchmark. The calculation of the project IRR was also based on a pre-tax valuation. As a result, the effects of any tax benefits are fairly minor.

As demonstrated by the project participants, the reduction of the income taxes to zero throughout the first five years (as suggested by the Chinese State Council) still results in negative pre- and post-tax NPVs, hence the project is still not financially attractive.

Although the project participants indicated that this project is not claiming any tax benefits, it was not possible to provide any evidences to TÜV SÜD for that case.

However, TÜV SÜD confirms that the impact of such tax incentives on the result of the investment analysis is fairly minor and the overall result, i.e. the project being financially unattractive is not changed even if the project is duty-free throughout the first five years.

In summary, TÜV SÜD is convinced; that even with the tax holiday, the proposed project activity is still facing a serious financing problem, hence can be considered as additional in the CDM context.