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

Att: CDM Executive Board

DET NORSKE VERITAS
DNV AS
International Climate Change Services
Veritasveien 1
NO-1322 Høvik
Norway
Tel: +47-6757 9900
Fax: +47-6757 9911
http://www.dnv.com
NO 945 748 931 MVA

Your ref.:	Our ref.:	Date:
CDM Ref 1086	MLEH/KCHA	15 October 2007

Response to request for review

"BHL Palia Kalan project" (Ref. no. 1184)

Dear Members of the CDM Executive Board,

We refer to the issues raised in the requests for review raised by three Board members concerning DNV's request for registration of the "BHL Palia Kalan project" (Ref. no. 1184) and would like to provide the following clarifications for your perusal and review.

The points raised and our response to the same are indicated below.

Comment 1:
Further demonstration of the additionality of the project activity is required.

DNV Response:
DNV had confirmed during validation that CDM was indeed considered at the start of the project activity. In 2005, BHL presented to the investors on the power sector scenario and the company's stance on investments in power, and demonstrated that the returns from such ventures were not attractive enough. It is only subsequently, with the prospect of CDM revenues that the PP has ventured into this project activity. (Attachment 1: BHL presentation to investors, January 2005, Page 73-76)

As addressed in DNV's validation report, the project activity primarily faces barriers relating to the electricity regulatory framework specific to the state of Uttar Pradesh and due to the sale of electricity to the state electricity boards. Given that the barriers demonstrated for the project activity exist through out the lifetime of the project, it is DNV's opinion that the additionality is sufficiently demonstrated. In addition, the PP has now chosen to demonstrate that the project activity is not economically attractive through an IRR analysis as described in DNV Response to Comment 2 below.

Comment 2:
As the main barrier presented to support the additionality of the project activity is the low tariff paid in the state, it should be demonstrated that this project activity is not economically attractive at the current or expected tariff

DNV Response:
The PP has now chosen to demonstrate that the project activity is not economically attractive at the current and expected tariff rate at INR 2.86/kWh, through an IRR analysis. It has been demonstrated and confirmed by DNV that the project IRR for the project activity is 18.79% in the absence of CDM revenues (Attachment 2: Palia-RFR-noescalation – Excel sheet). This is based on the approach that there is no escalation granted in the PPA tariff after the fourth year which is indeed a risk for the project activity. BHL has also determined the IRR based on the assumption that there would be an escalation in the PPA tariff in line with an average escalation after 5 years. IRR under this approach is determined to be 19.24%

The assumptions and input values for the analysis have also been verified by DNV:

- WACC has been estimated to be 20.3%, based on data from the Sensex and the Reserve Bank of India 10 year bond rate. The beta has been taken from Bloomberg, a provider of financial information. The WACC as been arrived by the equity value and debt value as provided in the annual report of BHL (http://www.bajajhindusthan.com/downloads/BHL%20Annual%20Accounts%20FY%202005-06.pdf).The risk-free rate has been taken from the http://www.rbi.org.in/home.aspx.
- PPA power tariff at INR 2.86/kWh as of the Power Purchase Agreement.
- Project investment cost at INR 227.6 Million.

Comment 3:
Further justification is required regarding why data from the period 2005/2006 has not been used in the calculation of the baseline emission factor

DNV Response:
DNV confirms that BHL has chosen the option of determining the combined margin, ex-ante, wherein the vintage used for the determination of the OM is the full generation-weighted average for the most recent 3 years for which data are available at the time of PDD submission on 22 September 2006.

The Central Electricity Authority is the nodal agency that publishes all the power generation details for all the regional grids in India. At the time of PDD submission, the complete data sets for the years 2002/03, 2003/04 and 2004/05 were only available and hence used. Data sets for 2005/06, though available were incomplete, especially on gas consumption by gas based power plants. The CEA General Review which was published in 2006 consists of 2004-05 data. The data for 2005-06 would be published only in 2007. Hence, in DNV's opinion, the data sets considered by BHL are deemed acceptable.

Comment 4:
The additionality of the project should be demonstrated using version 3 of the "Tool for the demonstration and assessment of additionality".

DNV Response:
The project participant has now chosen to revise the PDD in line with version 3 of the additionality tool. DNV acknowledges that version 3 of the "Tool for the demonstration and assessment of additionality" should have been applied and DNV is grateful for the review requests pointing out this error. Nonetheless, DNV's validation opinion with respect to project additionality does not change as a result of using version 3.

Comment 5:

In the PDD it is not quite clear the project design engineering. The PDD (page 10) declares that "project activity only installs a turbine generator (no additional boilers will be installed...)". It is unclear specifically which boiler(s) will be coupled with the turbine generator while in PDD (page 2) the capacities and operating pressures and temperatures for five boilers are given in details. It must be explained more clearly how the capacity of the new turbine - 12 MW was chosen.

DNV Response:

DNV confirms that the project activity does not involve the installation of any new boiler. In the baseline scenario, steam from the Thermax make 80 TPH boiler ($45kg/cm^2$ and 450^o C) was passed through a PRDS (pressure reducing station) and used. In the project scenario, steam from this boiler is deemed sufficient to run the turbine of 12 MW and the use of PRDS has been discontinued. Moreover, based on the specific steam consumption for power generation at 6.05 tonnes/MWh for the condensing cum extraction type turbine generator installed in the project activity, the Thermax boiler is deemed to have the potential to serve the new turbine.

Comment 6:

The PP/DOE shall further substantiate the appropriateness of the emission factor they propose to apply to this project activity.

The alternative that BHL could have followed was adopting the emission factors already published by the Central Electricity Authority (CEA) of India for the various regional grids, as per ACM0002. However, no detailed calculations or data to calculate the emission factor of the northern region grid were published by the CEA when the project was submitted for validation.

We draw your attention to CAR 6 of DNV's validation report, wherein we had raised a corrective action request as to why BHL was not adopting the CEA baseline emission factors that were already published. The response provided by BHL was reviewed and accepted by DNV. To quote:

DNV is able to conclude that the response provided by BHL should be acceptable due to the following:

- There is no detailed calculation or data for calculation of emission factor of northern region grid available on CEA website as of date (though a final report is published on November 2006). As such this cannot be validated.
- The NCV data used by BHL, based on NATCOM data, is a reliable and an official Indian source of data.

As such till the time, CEA comes with the detailed calculation excel sheets, for calculation of emission factor of northern region grid, BHL can use their independent calculation based on ACM0002 for calculations of the carbon emission factors of the grid.

DNV is able to confirm that the CEF calculations provided by BHL have been verified and found to be correct. The sources of data used in the calculations have also been checked and found to be correct. Thus DNV is able to conclude that the explanation provided the BHL is acceptable.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully
for DET NORSKE VERITAS LTD

Michael Lehmann
Technical Director
International Climate Change Services

C Kumaraswamy
Manager – South Asia
Climate Change Services