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Response to request for review

"Bharat Petroleum Corporation Limited (BPCL)'s Wind Power Project, India" (Ref. no. 2036).

Dear Members of the CDM Executive Board,

We refer to the clarifications requested by the Board members concerning DNV's request for registration of the project activity "Bharat Petroleum Corporation Limited (BPCL)'s Wind Power Project, India" (Ref. no. 2036) and would like to provide the following response to the issues raised by these requests for review.

Comment 1:
The PP/DOE should provide evidence of consideration of CDM prior to the date of investment decision as per EB 41, Annex 46 guidance on prior CDM consideration.

DNV's response:

As per EB 41, Annex 46(GUIDANCE ON THE DEMONSTRATION AND ASSESSMENT OF PRIOR CONSIDERATION OF THE CDM) *proposed project activities with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are required to demonstrate that the CDM was seriously considered in the decision to implement the project activity. Such demonstration requires the following elements to be satisfied:*

(a) The project participant must indicate awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this would include, inter alia, minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a CDM project activity.

In the context of the above, DNV would like to reiterate the following:

(i) The start date of the project activity has been identified as 28 March 2007, which is the date of purchase order placed for the wind turbines of the project activity. Purchase order copies provided by BPCL in support of the start date have been verified by DNV (Annexure-1 of PP response)

(ii) That BPCL was aware of the CDM prior to the project activity start date is evident from the fact that the project proponent had started the tendering process for appointment of (a) a consultant on 12 April 2006 (Annexure-2 of PP response) for all CDM projects/ proposals till 2012 and (b) the appointment of a DOE on 18 August

2006 (Annexure-4 of PP response) for all CDM projects till 2012 which is prior to the start date of the project activity of 28 March 2007 .

(iii) DNV would also like to clarify that BPCL is a Public Sector Undertaking in India and follows standard procedure of tendering (Annexure 2 & 4 of PP response) based on which project proponent had appointed Ernst & Young as a consultant on 24 July 2006 (Annexure-3 of PP response) and DNV as a validator on 04 January 2007 (Annexure-5 PP response) which is again prior to the start date of the project activity.

(iv) The fact that the project proponent (BPCL) was aware of the CDM prior to the project activity start date can be further assessed from the letter dated 27 July 2006 from Deputy General Manager, Business Development (responsible for Wind projects from BPCL) to CEM (E&P) to incorporate cash flow from CDM revenue for financial analysis and to prepare a presentation on possibility to avail carbon credits from project activity for board consideration (Annexure-6 of PP response).

(v) DNV would also like to clarify that benefits of the CDM were a decisive factor in the decision to proceed with the project activity can be demonstrated from the fact that the project IRR for the project activity is 9.42% which is much below than the benchmark of 12.25% and with CDM revenues, the project IRR improves to 13.11% and hence the proposal was submitted to board considering the inflow of CDM revenue and board had decided to invest in this project activity. This has been verified by DNV from letter from independent statutory auditor (Annexure-7 of PP response).

(b) The project participant must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this should include, inter alia, contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat;

In the context of the above, DNV would like to clarify, and as reiterated already above, that the project proponent had appointed Ernst & Young as a consultant on 24 July 2006 (Annexure-3 PP response) and DNV as a validator on 04 January 2007 (Annexure-5 PP response) prior to the start date of the project activity and has started the validation and host country approval process in parallel. This can be verified from the invitation letter sent from National CDM Authority of India (Ministry of Environment & Forest) to project proponent to give a presentation on 22 October 2007 (Annexure-1 of DNV response).

Comment 2:
The PP/DOE should further clarify why electricity generation was the only parameter considered in the sensitivity analysis and, if any, financial incentives to renewable energy generation projects in India have been considered in the investment analysis.

DNV's response:

DNV would like to clarify that DNV has evaluated the robustness of the financial model demonstrated through the sensitivity analysis already presented, as to why the scenarios would not be achieved (as stated below). These are deemed to be appropriate and reasonable in the opinion of DNV, which also establishes the project to be financially unviable.

Increase in generation: With an increase in generation by 18 % (at 28.32% PLF) the project IRR becomes 12.35% and thus exceeds the benchmark of 12.25% adopted by the project participant. However, the PLF assumed for the project activity is based on the study conducted by Center for Wind Energy Technology (an independent R&D Institution attached to Ministry of Non-Conventional Energy) in the region. Moreover, the average PLF in the region recommended by the Wind Energy Association (WEA) to the Karnataka Electricity Regulatory Commission (KERC) for the purposes of tariff working is 26.5%. Also, it has been observed that between the period of project commissioning and the validation site visit, the PLF achieved by project activity is only 19.55%. The same has been verified by DNV based on the sales invoices raised to Hubli Electricity Supply Company (HESCOM).
Based on these facts, an increase of 18% in electricity generation or achieving a PLF of 28.32% is deemed not to be realistic/practical. The judgment is also based on our experience and recommendation from the Wind Energy Association (WEA) on average PLF in the region.

Increase in Electricity Tariff: The tariff of the generated electricity has been fixed for a period of 10 years as per the Karnataka Electricity Regulation Authority, Tariff order dated 18 January 2005 and the PPA signed on 27 October 2007(Annexure-8 of PP response). As per the tariff order, the tariff is applicable only for 10 years for the present project. It is clearly stated in the tariff order that the tariff is subject to revision at the end of the period, therefore, any assumption on the tariff applicable from 11th year onwards is uncertain today.
However, DNV has analyzed that even at a 70% variation (improvement) in tariff after 10 years, the IRR of the project is below the benchmark of 12.25% hence this parameter has not been considered for the sensitivity analysis and this is deemed reasonable.

Decrease in Investment cost: With a decrease in investment cost by 17 % the project IRR becomes 12.27% and thus exceeds the benchmark adopted by the project participant. However in DNV's opinion, a decrease of 17% in investment cost is deemed not to be realistic/practical considering the fact that the project has been contracted on a turn key basis to Suzlon by the project proponent BPCL (Annexure-1 of PP response). In DNV's opinion as the project has been contracted on a turn key basis, the project cost is not likely to have any increase or decrease. In the worst case scenario, there can only be an escalation in the project cost (which decreases the IRR) and not a decrease (which would increase the IRR of the project) hence this parameter has not been considered for the sensitivity analysis and this is deemed reasonable.

Decrease in O & M cost: Even after 100% decrease in the O&M costs the IRR for the project activity is lower than the benchmark return hence this parameter has not been considered for the sensitivity analysis and this is deemed reasonable.

DNV would also like to clarify that there are no specific benefits for renewable energy based power generation in India. The only incentives provided by Ministry of New and Renewable

Energy are in form of accelerated depreciation and tax benefits and both these incentives have been considered in the project IRR spreadsheet submitted during request for registration.

Yours faithfully
for DET NORSKE VERITAS LTD

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