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Att: CDM Executive Board

Your ref.:  
CDM Ref 1363

Our ref.:  
MLEH/KCHA

Date:  
12 December 2007

## Response to request for review

**5 MW renewable energy project for a grid system at Rohru Tehsil, Shimla District in Himachal, India (Ref. no. 1363)**

Dear Members of the CDM Executive Board,

We refer to the issues raised in the requests for review by three Board members concerning DNV's request for registration of project activity 1363 "5 MW renewable energy project for a grid system at Rohru Tehsil, Shimla District in Himachal, India" and we would like to provide the following response to the issues raised by these requests for review.

### **Comment 1:**

*Clarification is required on how the common practice analysis can be considered a barrier which prevents the implementation of this specific project activity.*

### **DNV's response:**

From the statistics of the Government owned Himachal Pradesh state electricity board (HPSEB), DNV was able to verify that the investment in small hydropower projects in Himachal Pradesh is not a common practice ([http://www.hpseb.com/schemes\\_which\\_are\\_presently\\_under11.htm](http://www.hpseb.com/schemes_which_are_presently_under11.htm)). As per the statistics, the share of small hydropower plants (capacity less than 25 MW) is less than 2% of the total hydropower capacity addition planned for in the 11<sup>th</sup> plan (2007-2012). Approximately half of the small hydropower plants (capacity less than 25 MW) in Himachal Pradesh are established with Government support. Out of private investments in small scale hydropower sector in the state (under HIMURJA), most are expecting CDM revenues (Ref: Project Proponent's response). Only a few very small units are not expecting CDM revenues.

DNV was also able to verify the fact that also further plans focuses on mainly medium and large scale hydropower plants ([http://www.hpseb.com/schemes\\_which\\_are\\_presently\\_under12.htm](http://www.hpseb.com/schemes_which_are_presently_under12.htm)). As per the statistics, the share of small hydropower plants (capacity less than 25 MW) is only 1% of the total hydropower capacity addition planned for in the 12<sup>th</sup> plan.

Considering these arguments, DNV is of the opinion that establishing a small scale hydropower plant in Himachal Pradesh is not common practise.

It is acknowledged that the common practise analysis is not a barrier itself and it was thus not identified as barrier in DNV's validation report. However, the common practice analysis re-

affirms the investment barrier and other barriers due to lack of infrastructure, construction risks due to geological barriers and hydrological barriers.

**Comment 2:**

*Further clarification is required on how the DOE has validated that the salvage value in the IRR calculation accurately reflects the costs and benefits that would accrue after the 10th year of the project.*

**DNV's response:**

The salvage value of 5-10% is commonly considered as per the financial institutions in India. (Ref: PP's response). Salvage value represents the scrap value or saleable value of an asset, and it can either be assessed by considering the market trends after a certain period of time and other factors (including wear & tear, geological conditions etc) or a standard figure can be used (<http://www.referenceforbusiness.com/encyclopedia/Res-Sec/Salvage-Value.html>). The project developer considered the salvage value as 5% of value of fixed assets (Land and plant and machinery at the end of 10 years as per the general trend in the Indian finance sector which seems reasonable considering the geological risks and the tear in the project area (as discussed in the PDD). The salvage value stated in the PDD (32.90 million Rs.) is calculated as 5% of the total investment (258 million Rs.) with an addition of 20 million Rs. DNV assesses this input to the original IRR-analysis to be a conservative estimate as it gives a salvage value of 12,5% , i.e. higher than the interval given above for the salvage value judgements.

Furthermore, in response to the EB's comment, the project developer has also presented a scenario (ref: new IRR calculations) wherein, the PP has assumed a realisable value of 21% (54.31 million Rs versus 32.90 million Rs). Based on these assumptions, the IRR works out to be 9.13%.

DNV considers this to confirm that the original assessment of the salvage value is acceptable by showing the low sensibility of the IRR for an increased salvage value.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully

for DET NORSKE VERITAS CERTIFICATION AS



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