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Att: CDM Executive Board

Your ref.:  
 CDM Ref 0862

Our ref.:  
 MLEH/ETEL

Date:  
 17 April 2007

## Response to request for review “Allain Duhangan Hydroelectric Project (ADHP)” (0862)

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 “Allain Duhangan Hydroelectric Project (ADHP)” (0862), and we would like to provide the following response to the issues raised by the requests for review.

### **Comment 1:**

*The calculation of the OM is not clear. There is a need for further clarification. Import of power from Western and Eastern grids are given in the excel sheet along with the grid emission factors. However, the PDD on page 8 states that for electricity imports  $C_{i,j}$ , imports from other connected electricity systems has been considered as “0” tCO<sub>2</sub>/MWh as a conservative approach. Since the Western and Eastern grid also are to be considered “other connected electricity systems” this is confusing. Excel sheets don’t show how imported electricity at “0” tCO<sub>2</sub>/MWh is taken into the calculations.*

*If import is not included (as it seems from excel calculations) in current generation, then after including these imports the OM-EF would go down to from 0,750 to 0,696 tCO<sub>2</sub>/MWh for the year 2004-05.*

### **DNV Response:**

We acknowledge that imports were not adequately considered in the calculation of the OM emission factor and we are thankful for the RIT member / Board members raising this issue. The simple OM emission factor of 0.971 tCO<sub>2</sub>/MWh in the PDD submitted for registration does not consider imports from the Western and Easter grid.

Since net imports are less than 20% of total generation in the Northern grid, imports may according to ACM00002 either be considered at 0 tCO<sub>2</sub>/MWh or at the average emission rate of the exporting grid. If imports are considered at the average emission rate, the simple OM emission factor would be 0.974 tCO<sub>2</sub>/MWh and thus larger than the selected simple OM emission factor. If imports are considered at 0 tCO<sub>2</sub>/MWh, the simple OM emission factor is 0.945 tCO<sub>2</sub>/MWh.

The project participants have revised the PDD to adequately consider imports. Imports are now considered using the conservative value of 0 tCO<sub>2</sub>/MWh. The resulting OM emission factor is 0.945 tCO<sub>2</sub>/MWh, resulting in a combined margin emission factor of 0.737 tCO<sub>2</sub>/MWh (Please note that the 0.750 tCO<sub>2</sub>/MWh mentioned in the request for review refers to the combined margin and not the OM).

**Comment 2:**

*Information on the hydro reservoirs and its capacity is missing in the PDD.*

**DNV Response:**

As stated for the request for clarification nr 1 (CL 1) in table 3 of the validation protocol, the calculation sheet along with the digital raster graphic (DRG) for the storage area of water in the Allain barrage and intermediate reservoir has been assessed to verify the power density of the project of 6508 W/m<sup>2</sup>.

To address the Board members comment, a revised version of the PDD which includes further information on the reservoir is submitted with this response. Moreover, the DRGs for the storage area of water in the Allain barrage and intermediate reservoir are enclosed to the project participants' initial response to the requests for review.

**Comment 3:**

*It is not clear why in table 1.2 of the PDD the IPCC default value for the Fuel emission factor is used, since this is not the preferred option.*

**DNV Response:**

No national fuel emission factors are available in India and selecting IPCC default values for the fuel emission factor is thus in accordance with ACM0002.

We sincerely hope that the Board accepts our above explanations.

Yours faithfully  
for DET NORSKE VERITAS CERTIFICATION AS



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