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Att: CDM Executive Board

Your ref.:
 CDM Ref 1273

Our ref.:
 MLEH/CK

Date:
 04 January 2008

Response to request for review “Someshwara small hydropower project (24.75 MW) in Karnataka, India” (1273)

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 “Someshwara small hydropower project (24.75 MW) in Karnataka, India” (1273) and would like to provide the below initial response to these requests for review.

Comment No 1:

Further clarification is required on whether the salvage value assumed on the 10th year represents the projected cash flows for the remainder of the life of the project.

DNV Response:

A salvage value of 5% of the total assets has been considered in the project activity at the end of the cash flow period of ten years. In DNV’s opinion, consideration of a project life of ten years is acceptable, given that

- The amortization period of the loan is ten years
- The power purchase agreement (PPA) signed with the PP is valid only for the first ten years. Uncertainties, in the form of a downward revision in tariff, post the first ten year period or the possible closure of the project (owing to the ongoing dispute between the states of Karnataka and Tamilnadu on sharing of the river water), has necessitated the PP to recover the investment at the earliest (in this case by the tenth year)

As indicated in the response by the PP, a salvage value of 5% has been chosen primarily for reasons such as increased wear and tear of machinery due to the barriers and the uncertainty in determining a scrap value that is dependent on factors such as the condition of the asset, prevailing price, demand, technology developments and economic conditions, prevailing at that point of time.

The PP has also chosen to demonstrate that:

- At a salvage value of 50% of the plant and machinery (after depreciation) at the end of ten years, the project IRR has been determined to be 14.67%, which is lower than the chosen benchmark of 17.91%.

- An IRR analysis determined over a 20 year period has been demonstrated to be lower than the benchmark at 14.57%. In this case, the assumptions used in the demonstration of the IRR over a ten year period have been retained, except for the tariff. As the PPA is valid only for a ten year period, the tariff has been worked out based on the ‘cost plus’ approach as advocated by the Karnataka Electricity Regulatory Commission.

Kindly refer to the IRR analysis spreadsheet attached as Annexure 1, for the aforementioned two scenarios.

Hence, in the opinion of DNV, a consideration of 5% as the salvage value at the end of the tenth year does not affect the consideration and justification of the requirement for CDM revenues for the project activity.

Comment No 2:

Further clarification is required on how the input values for the investment analysis have been validated

DNV Response:

The input values for the investment analysis have all been sourced from the following: the detailed project report, loan sanction letters and Provisions of IT Act/Companies Act of India as detailed below:

- As per the Companies (Transfer of Profits to Reserves) Rules, 1975 for India, in cases where the dividend proposed is between 15% and 20%, (as is in the project case of 16%) the project proponent is required to transfer to the reserves, not less than 7.5%* of the current profits (please see link below). Furthermore, the Income Tax Act, 1961 requires the project proponent to remit dividend distribution tax at the rate of 13.0685%† before declaring the return on equity. Attached is Annexure 2: Extracts from Direct Taxes Ready Reckoner –Taxmann’s 2004-05 for the source of dividend distribution tax (DDT) considered (page 10-11) and Annexure 3 (extract from the Companies Act for transfer of reserves)
- The Power purchase agreement for the project activity (Annexure 2, pages 1 and 2)
- Extract of the detailed project report compiled by TCE Consulting Engineers Limited addressing the project activity and the PLF (Annexure 2 , page 3)
- Copies from IDFC addressing the project cost, application for finance by the PP and loan rates

Comment No 3:

Further clarification is required as to how the calculation of the weighted average cost of capital (WACC) has been validated.

* Clause 2 (percentage of profits to be transferred to reserves), sub clause (iii), Companies (Transfer of Profits to Reserves) Rules, 1975, Ministry of Corporate Affairs, Govt. of India.

<http://www.mca.gov.in/MinistryWebsite/dca/actsbills/rules/CToPtRR1975.pdf>

† Income Tax Act, 1961

DNV Response:

The selection of the Weighted Average Cost of Capital (WACC) as a benchmark for the proposed project activity and the calculation of WACC are justified and acceptable, further to DNV's review of the financial worksheets for the project. The financials for the project, including the WACC calculations were submitted to the EB along with the request for registration. The opinion was based on the following:

The total finances obtained for the project include two components viz.: loan and equity. Subsequently, the project IRR is based on the total investment (including the debt and the equity portions). In order to evaluate the financial viability of the project, the project developer is required to assess the expected minimum returns on all components of the investment made. Hence, the benchmark selected needs to be such that, the expected minimum returns takes into consideration the risks associated with each of the components of the total investment. Thus, from an investor's perspective, the WACC is one of the most appropriate benchmarks for comparing project IRR since it is the weighted average of the total cost of the different components of the investment.

DNV was able to confirm the correctness of the WACC based on the following evidences that were reviewed:

The interest rate of 12% on the debt portion of the investment and 11.5% on the working capital, considered for the WACC calculation was verified against the detailed project report (DPR).

The expected return on equity investment has been arrived at as the average of the following on the basis of the latest available data.

- average yearly return of the Indian stock market (S&P CNX Nifty) over three year period*, i.e., April 2002-March 05, and
- a risk-adjusted return computed from estimated risk levels (which correspond to the risk perception[†] of investors) of Government Securities and equity. In the attachment (annexure 2, pages 10-14) the risk adjusted return has been approximated by multiplying the risk free return with the ratio of the respective risk levels which is working out to 7% x 82/25 = 22.96%.

The return on equity is based on stock market index (S&P CNX Nifty) (Annexure 4) and risk free rate is based on the yield to maturity (YTM) on Government securities with a tenor of more than 10 years issued during the year 2004-05. The said information is available in the NSE (National Stock Exchange) and RBI (Reserve Bank of India) websites.

Comment No 4:

Further clarification is required on how the barriers have been validated to be consistent with the common practice analysis

DNV Response:

In the state of Karnataka, only the two large public sector companies, Karnataka Power Corporation Limited and Visveshwaraya Vidyut Nigam Limited, are involved in the development

* A period of 3 years has been taken into account because "About one-fourth of share owners had been holding at least some of their shares for over 10 years and another one fourth for 5 to 10 years. Thus, about one half of our sample shareowners had held some of their shareholding for over 5 years. *About three fourths had shares which had been held for over 3 years (emphasis added)* - L.C. Gupta, Indian Shareowners- A Survey, Society for Capital Market Research and Development, New Delhi (1991) P. 133

[†] How Good Are Mutual Funds, L.C. Gupta and Utpal K. Choudhury, Society for Capital Market Research and Development, New Delhi (2001), p.48

of large hydro power projects. The independent power producers only take up small hydro power projects.

Karnataka Renewable Energy Development Limited (KREDL), the nodal agency for the implementation of small hydro power projects, addresses the fact that over 80% of the projects approved by the nodal agency are non-starters, and that the installed capacity of the projects implemented as of 2002-03 totalled only 139 MWs, while the agency had approved projects with a total installed capacity of 876 MWs (<http://kredl.kar.nic.in/Docs/Year%20wise%20details.xls>). One of the main reasons was an unattractive tariff that has deteriorated progressively.

The validation report also addresses this aspect - *It has been established that out of the total installations of small hydro power projects in the southern region, the contribution of Karnataka is only 156.90 MW as per Karnataka Renewable Energy Development Limited*, which accounts for 2.67% of total capacity of power plants in the southern region. Pioneer Genco Limited has argued that the main difference between the common run of the river projects and the proposed CDM project, is that the project faces higher risk due to natural vagaries like water availability, gradient drop and unfavourable power purchase tariffs (frequent changes in the tariff on the lower side, by the state utility KPTCL and currently fixed at INR 2.90/KWh).*

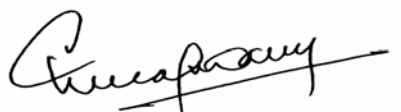
Hence, from the above, it is in our opinion sufficiently demonstrated that small hydro power projects are not a common practice in the state of Karnataka, given the barriers faced by the project proponents.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION AS



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* Karnataka Renewable Energy Development Limited <http://www.kredl.kar.nic.in/ProgressReport.htm>