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Your ref.:	Our ref.:	Date:
CDM Ref 0400	MLEH/ETEL	28 June 2006

Response to request for review
Request for registration of the "2x5 Radhanagari Hydro Electric Project" (0400)

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by four Board members concerning DNV's request for registration of the "2x5 Radhanagari Hydro Electric Project" (Ref 0400)) and would like to provide an initial response to these requests for review.

We hereby provide our response to each issue raised in the requests for review:

1. ***The demonstration of additionality is not sufficiently justified. In the analysis of investment barriers no real barriers are shown which relate to the CDM, i.e. it is not clear why the CDM is necessary to overcome these barriers. For example:***
    a. ***In the PDD it is described that the project developers had to undergo a "tender and bid process" which includes, inter alia, the "invitation of financial bids from the selected promoters. It can therefore be concluded that other competitors submitted bids too. Consequently, if the project developers which present the project as a CDM activity had not been allotted the project, the project would probably have been carried out by one of the competitors, i.e. the project would have happened in the absence of the CDM project activity.***

We draw your attention to our validation report (section 3.4, Additionality), in which we have stated that "*It has been presented and verified that the project proponent is the first to set up a hydro power plant in the private sector after the decision by the Government of Maharashtra to allow privatisation in the power sector"*. While it is a fact that the project activity had to go undergo a tedious tender cum bid process in order to receive the allotment from the Government of Maharashtra, it has been established that:

- R. M. Mohite and Textiles Ltd. (RMMTL) was the only company to submit a proposal during the June 2003 call for expression of interests from the Government of Maharashtra
- RMMTL is the first private party to have been allotted a power project since the government's policy (2002) of encouraging private sector participation, and
- RMMTL is first private party to have been allotted a power development project for captive power production

While we acknowledge that the above has not been sufficiently addressed in the PDD, supporting document, attached as Annex 1, from the Government of Maharashtra, Water Resources

Department, supports the above arguments and thus can be concluded that in the absence of the project activity being considered as a CDM project activity, no other project proponent would have started a venture such as the project activity by RMMTL.

b. ***Also, in the PDD it is stated: "The power from the grid under these circumstances has become unreliable, with frequent power cuts. This has affected the business of RMMTL in the past few years. RMMTL is a hundred percent export oriented process industry in an extremely competitive market. Thus in order to compete in the market while at the same time maintaining their production capacity, they decided to set up a Hydro Electric Project". From this statement it can be concluded that there are significant other incentives than the CDM to go ahead with this project. In order to stay competitive, this project may therefore have been implemented without the registration as a CDM activity. Neither the PDD nor the validation report addresses this aspect."***

It is a known fact that India is facing a power deficit scenario and the situation is expected to continue for many more years. This has been addressed in the PDD as well, for the state of Maharashtra "*As per the latest statistics available with Maharashtra Generation Company (Mahagenco), the total power generation in the state is 7967 kWh and the total demand is 11108 kWh, which implies a shortage of 3141 kWh. The power from the grid under these circumstances has become unreliable, with frequent power cuts."* Hence, poor reliability and quality of power supply has been the bane of many industries, such as RMMTL. The only recourse for the industry, in such situations is to resort to captive power generation, and this would have under normal circumstances involved installation of a captive diesel generation unit. RMMTL, has however, chosen the option to implement a small scale hydro power project. We confirm that there are no other incentives through the implementation of this project.

c. ***Under technological barriers the authors mention that "R. M. Mohite Textiles Ltd. is a relatively inexperienced small scale hydro power entrepreneur and subsequently lacks trained manpower for such a project" and that "this has posed additional perceived risk for investors lending the project, and has necessitated that Mohite Textiles Ltd. must meet additional cost for third party technical expertise". Seeking external advice is a normal aspect in project development. The other bidders of the tender certainly had to cope with this situation too. It remains therefore unclear why these technological barriers are prohibitive for the implementation of the project without the recognition as a CDM project and how these barriers are overcome by the CDM."***

It has been clearly established that RMMTL is a process oriented industry and has therefore no experience in the hydro power sector. Given this background, it would have been easier for the company to opt for a diesel generation unit, as a source of power, from the point of view of implementation and operation. However, the fact that RMMTL has chosen an option, that it is unfamiliar with, and also put up with the increased costs for training, operation and maintenance, sufficiently demonstrates the fact that, in the absence of CDM as an incentive, the project activity would not have been taken up. This is also amply justified by the supporting document, attached as Annex 1, that RMMTL was the sole bidder for the call for expression of interest for the development of the Radhanagari project.

d. ***It is stated that "common practice is investing in medium or large scale fossil fuel fired power projects". However, the issue of prevailing practice should be discussed in the context of RMMTL's situation and of companies in similar situations."***

We draw your attention to the validation report, wherein it has been stated that "*It is been confirmed that the common practice in the country is to invest on medium and large scale fossil fuel fired power projects as opposed to small hydro power projects. Currently, India has 514*

small hydro power projects with an aggregate capacity of 1,693 MW. As per the Ministry of Non-conventional Energy Sources, against an estimated potential of about 15,000 MW of small hydro power projects, the percentage of installed capacity small scale hydro power in India is still only 11% of the potential. In the state of Maharashtra, only 27 out of the 234 possible hydro electric sites identified by the MNES have been developed, thus indicating that investments in small hydroelectric power plants is still not a common practice, despite efforts by MNES to promote small scale hydro power. It has also been established that RMMTL is the first private player to have been allotted a site for development of captive power production for 100% self-consumption by the Government of Maharashtra, Irrigation Department." It our opinion that, given RMMTL's unique initiative and for the details provided under ***a, b & c*** above, prevailing practice would have been setting up of fossil fuel based power plant and not a small scale hydro power plant.

2. ***The Validation protocol (Section B.2.1) is not consistent with the PDD since additional barriers are mentioned. This should be clarified.***

We acknowledge the error on our part. Based on the first version of the PDD submitted to DNV, sections B.2.1 of the protocol and consequent Clarification Request (CL 3 in the protocol) were addressed. However, the project proponent chose to revise the argument on additionality, primarily because the Power Purchase Agreement with the Electricity Board was still pending. This has been indicated in the response column (column 3 of Table 3 in the validation protocol). Based on the revised PDD provided, the validation report correctly captures the arguments on additionality.

3. ***The proposed methodology is potentially not applicable to this project activity for the following two reasons:***
    a. ***(According to the PDD the project involves "the addition of two hydropower generation units of 5MW capacity each, with total installed capacity of 10MW". The word "addition" implies that some hydropower generation units may already exist, and that this CDM project activity only adds new units to the existing system. If this is the case, then the overall installed capacity of hydropower may exceed 15MW. AMS-I.D. reads with that respect: "To qualify as a small scale CDM project activity, the aggregate installed capacity after adding the new units [...] should be lower than 15MW". This means that if some hydropower generation units already exist with a capacity of at lest 5MW, the threshold of 15MW would be reached, and the project would not qualify anymore as small scale project. The PDD does not address this issue. Judging from the validation report the DOE has not done so either. This should be clarified.***

We would like to draw your attention to the fact that the Radhanagari dam was constructed in 1954 on the river Bhogawati in order to supply water to a well-developed irrigation belt of Bhogawati-Panchganga valley. An installed capacity of 6 MW (4 x 1.5 MW) was also constructed at the time. However, with the passage of time, the capacity has been de-rated to 4.8 MW (4 x 1.2 MW) and is operated by the Maharashtra State Electricity Board (MSEB). Thus even if existing installed capacity would have to be considered along with the proposed project activity, the total installed capacity is 14.8 MW, which is below the threshold of 15 MW.

Moreover, the proposed project activity was submitted for registration on 26 April, 2006 using the older version 07 of the small scale methodology AMS-I.D dated 28 November, 2005. This methodology was subsequently revised to include provisions for retrofit and renewable energy capacity additions as eligible activities and approved during the 23rd meeting of the Executive Board. As per procedures, after considering the 8 week grace period allowed before the revisions came into force, the last day for submission of projects using the older version of the methodology was 28 April, 2006. As the project activity, addressing version 7 of AMS-I.D was put up for registration on 26 April 2006, as stated above, the issue of installed capacity was not highlighted.

b. Provided that the project activity is below 15MW, a wrong methodology may have been chosen. The project activity is meant to supply electricity for "captive consumption" (p. 3 PDD) or "100% self consumption" (p. 9 PDD). For that reason, the project may have to use AMS-I.A. ("Electricity generation by the user").

We would like to draw your attention to the recommendation made by the Small-Scale Working Group (SSC WG) at its third meeting with regard to an amendment of AMS-I.D, which subsequently was approved by the Board. According to the report of SSC WG meeting "*The amendment was considered necessary to accommodate the possibility of self consumption and displacement of the grid electricity supply, the title of the indicative methodology should be changed to 'Grid Connected Renewable Electricity Generation' and language in paragraphs 1 and 3 are modified to include option of displacement of grid electricity in addition to supply to the grid*."

4. ***In the validation report (p. 7) diesel units are also mentioned for the calculation of the CEF. However, in the corresponding table in the PDD (p. 26) no diesel units appear. The calculation of the CEF may therefore not be correct. This should be clarified."***

We hereby acknowledge the error in the validation report. We draw your attention to the fact that by and large, the generation mix of the various grids in India is made up of fossil fuelled plants such as coal, diesel, gas and naphtha. However, for the project activity, the applicable grid is the Maharashtra grid. And for this grid, it is confirmed that the generation mix consists of hydro, coal, gas and nuclear only.

5. ***The estimated plant load factor is estimated to be 30.13% (p. 4). However, there is no justification that this estimate is reasonable. Although this does not constitute a problem, in order to tell whether the projected emission reductions are reasonable, the derivation of the plant load factor should be described better in the PDD (provide underlying data).***

As addressed in the PDD "*the hydroelectric project uses the irrigation discharges & spillage (only in the monsoon season) for power generation. The amount of water to be discharged for the irrigation purposes is determined or decided by the Irrigation Department, Government of Maharshtra".* It is also to be expected that power generation does not occur continuously but only during peak load hours of approximately 4 hours in the morning and 3 hours in the evening. Hence a plant load factor of 30.13% is considered conservative for the project activity.

We sincerely hope that the Board accepts our aforementioned explanations and we look forward to the registration of the project activity.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION LTD.

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