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Att: CDM Executive Board

Your ref.:  
CDM Ref 0697

Our ref.:  
ETEL/KCHA

Date:  
13 December 2006

## Response to request for review

### “6 MW Renewable energy generation project by Varam Power Projects in India” (0697)

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 “6 MW Renewable energy generation project by Varam Power Projects in India” (0697) and would like to provide the following response to the issues raised by the requests for review.

#### **Comment 1:**

*The additionality proof is not sufficient: the PP lists several barriers (technology, availability of biomass, investment) but only ‘anecdotal’ evidence is provided. Especially in the investment barrier section IRR figures are quoted but the underlying assumptions are provided nowhere (although the PP states that the Information is made available). Additional information is required before this project activity can be registered.*

*In addition no information is provided showing that the CDM was considered when the implementation of the project was decided.*

#### **DNV Response:**

First of all, we would like to reiterate that this is an issue we have taken seriously from the start of the validation. Kindly refer to DNV’s validation report, section 3.4 on ‘Additionality’, wherein we have indicated that DNV was able to verify the following: That CDM revenue was considered at the start of the project activity; IRR without CDM revenues; technological barriers and availability of biomass.

We hereby take this opportunity to elaborate further on the above together with the proof of the barriers.

This project was one of the first biomass projects in the state of Andhra Pradesh in India. The project activity utilises the available biomass in the region, such as rice husk, jute sticks, cotton stalks and castor stems.

Being one of the first projects to venture into power production using varied biomass as fuel, the project proponent had envisaged the technological barriers due to variation in biomass fuel compositions and lack of operating knowledge/experience with biomass fuel. These apprehensions unfortunately came true. DNV has been able to confirm that the technological barrier due to the use of varied biomass fuel used resulted in unstable plant operation due to machinery failure. This has been verified through assessment of plant log books and analysis reports of various biomass fuels used in the boiler operations. The plant log sheet indicating the downtime of the plant due to various reasons is attached as annexure 1. It is evident that being an early project, in utilization of varied biomass and coupled with the lack of experience in handling this; the plant had a high percentage of mechanical outages in the year of commissioning (2002).

Barrier of biomass availability: DNV could confirm on the surplus biomass availability in the Srikakulam region (where the project is located) based on biomass assessment studies prior to project implementation (as a part of the ‘Detailed project report’) and subsequent studies from other independent agencies like the Administrative Staff College of India (ASCI through “Socio-economic Impact of Biomass power plants”), attached as annexure 2. The study from ASCI indicates that the surplus biomass available in the region is around 44,600 tons/year. Though the biomass is available in surplus, the project proponent would still depend on suppliers like rice millers and other farmers for sourcing the biomass. It was confirmed by DNV through the stakeholder interactions that this biomass was disposed through uncontrolled burning or left to decay, before the project was implemented. As the demand for biomass is seen as a business opportunity by farmers and rice millers this lead to prices increases and fluctuations. Hence, the project proponent’s argument that sourcing of biomass at higher prices than envisaged, results in increased cost of generation and economical un-viability is in our view deemed acceptable.

Investment Barriers: The detailed IRR calculations with all assumptions were presented to DNV for verification during the validation of the project. After a thorough review of all the documents, assumptions and calculations submitted, DNV was able to conclude that the project is not viable under normal financial conditions with an IRR of 12.67% and a payback period of 8 years. The assumptions and detailed calculations reviewed by DNV are attached as annexure 3. The IRR scenario (3) also indicates that the project activity at the present tariff for electricity at INR 2.85 would cause an IRR of 6.53% only.

The PDD of the project has been amended by the project proponent to expand on the above discussion.

**Comment 2:**

*In addition no information is provided showing that the CDM was considered when the implementation of the project was decided.*

**DNV Response:**

DNV has verified the copy of the Minutes of the Board of the company meeting dated 9 January 2000, provided as proof for the argument that CDM was indeed considered prior to the implementation of the project. A copy of the extract from the minutes book of the company of the Board meeting is attached as annexure 4.

From the above, it is in our opinion evident and substantiated that the project faced barriers and it is thus deemed additional by us.

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 LTD

A handwritten signature in black ink, appearing to read 'Einar Telnes', is positioned to the left of a vertical red line.

Einar Telnes  
*Director*  
International Climate Change Services

C Kumaraswamy  
Manager – South Asia  
Climate Change Services

Attachments:

- Annexure 1: Plant log sheet indicating the downtime of the plant
- Annexure 2: ASCI report on surplus biomass availability
- Annexure 3: Detailed IRR calculations for three scenarios
- Annexure 4: Copy of the minutes of the Board meeting