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| Your ref.: | Our ref.: | Date: |
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| CDM Ref 0945 | ETEL/KCHA | 10 April 2007 |

# Response to request for review
## "Methane capture and use as fuel at Rajaram Maize Products, Chattisgarh" (0945)

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 project activity "Methane capture and use as fuel at Rajaram Maize Products, Chattisgarh" (0945)

and would like to provide the following initial response to the issues raised by the requests for review:

***Comment 1:***

*The barriers presented by the PP/DOE in the additionality analysis should be further substantiated. For example, the "skills" or capacity barriers seems not to have been properly justified in the PDD, nor in the validation report. India is a country with a substantial engineering and technical operation capacity at the national level, which reduces the transaction costs related to technical capacity building in relation with developing countries with a less advanced engineering and technical capacity. This barrier needs to be further justified. Eg. Based on factors that affect differences in regional technical capacities, or either withdrawn from the analysis.*

**DNV Response:**

We reiterate that during the validation DNV assessed relevant documentation and had consultations with industry experts with respect to the project's additionality claims. The project faces significant technological barriers and barrier due to prevailing practice apart from the barrier due to lack of technically competent personnel required for operating the project plant. As presented in our validation report, DNV has assessed that although there is a large pool of technically competent engineers in the country, the skill level of personnel employed in the maize processing sector is low. Maize processing does not require sophisticated technical skills and the competency of the personnel employed at the project plant of M/s Rajaram Maize Products was assessed to confirm this (**Supportive VI**). As the project required involvement of manpower with a different skills set than previously, and which was not available among the existing manpower of the plant, the organization had to recruit an additional 4 technical and 4 non-technical personnel for the project (**Supportive II**). Due to need for higher technical skill these new employees received a higher remuneration compared to the existing operating staff at the plant. Evidence for this has been assessed and confirmed by DNV (Please see **Supportive IV and V**).

Dearth of technical / operational skill among the existing operating personnel of Rajaram Maize was also evident from the fact that the organization intermittently had to avail the services of external sector experts for identifying improvement opportunities in maize processing. (**Supportive I**). An example on this was provided and assessed by DNV.

The capacity barrier for the project was assessed both with regards to operational requirement of the project as well as maintenance requirements. The project involved installation of compressors, flow meters, retrofitting burner assembly in dryer and installation of an interconnecting piping network. Work orders for maintenance of critical equipment like blowers and burner assembly were reviewed, which substantiated the claim that in case of maintenance requirement the nearest facility available was at Nagpur, around 210 km from the project site. This will lead to increased cost of maintenance and longer outages of the plant. Again, this has been confirmed by DNV.

***Comment 2:***

* *There was a comment posted in the global stakeholder process (cfr. Comment number-02 posted by "Agg.individual" on 26th August 2006) that seems not to have been properly addressed by the DOE.*

**DNV Response:**
DNV acknowledges that although the validation report details how the comments received during the stakeholder consultation process have been taken care of, each comment has not been dealt with separately in the report. The rationale for this is that most of the comments are repetitive and as such an individual response would be repetitive in nature.
The comments received on 26th August 2006 and the response against the same as given in the final validation report is given here-below.

1. *Ref-B3 (Technological & Additional Barrier)*
   *Comment: As far as UASB is considered, it is well proven technology for wastewater treatment; hence the trouble shooting in UASB can be addressed easily. Therefore the claim of technological barrier due to use of UASB technology voids.*

DNV's has provided a response to this comment in the final validation report (page 11).
*"Proposal put forward by GETP systems Pvt. Ltd. for installation of a bio gas capture and utilization set up indicates the benefits as one of the drivers for the project. Documentary evidence in confirmation of the same has been made available and found to be in order. In the proposal inconsistency of biogas generation and operational risks due to variations in bio gas supply rate to dryer were perceived as the risks associated to the project activity.*
*As indicated in the project design generation of bio gas depends on the effluent load generated in the plant which is in turn dependent on the production. Variations in productions do affect the bio gas generation. Further inconsistency in biogas generation could be for reasons like mixing efficiency of effluent, organic load on the bio digester, optimum gas solid separation. These are significant barriers to consistent supply of good quality biogas to plant which is in continuous operation. Seasonal variations also affect the bio gas quality and are confirmed from industry experts and detail designer for the set up at RMP"*

The communication from the technology supplier M/s GETP systems Pvt. Ltd. on the apprehension regarding inconsistency of biogas generation and quality is attached to this response (**Supportive VII**).

2. *Ref-B3 (Technological & Additional Barrier)*
   *Comment: on availability of skilled manpower to operate the UASB system in small towns is not a barrier, as many of the skilled operators are available in India and they are willing to work in small Towns also.*

DNV's response as provided in the final report (page 11).
*"Data as received from the starch manufacturers' association confirmed that the project was the first of its kind in the state. The project is not a common prevailing practice. Small scale sector – starch industry owners have been reluctant to undertake such project activities due to its non-precedence, which is a result of the technical difficulties associated to it and the non-availability of skill man-power to operate the systems.*
*The starch industry by itself is not a segment involving skilled manpower and is not a knowledge intensive segment. Due to the existing barriers, the project proponent was not keen to invest in the project activity implementation, and therefore the investment barrier did exist. CDM revenue was one of the driving factors to project implementation"*

For further clarification on how DNV has taken care of the issue, please refer to our above response to Comment- no 1.

3. *Ref-D3.3*
*Comment: Generated biogas volume should be measured and not estimated.*

DNV's response as provided in the final validation report (page 12).
*"In the project activity the biogas generated and utilised in the flash dryers is measured using a mass flow meter. Thus the actual baseline emissions are determined based on parameters which are measured during the project period".*
We consider this an adequate response to the comment made.

***Comment 2(contd.)***

* *There was also a comment inserted by peri, individual on 30th November 2005, regarding the existence of investment barrier for the project activity (see validation report, page 10, 3rd para of the comment), seems not to have been properly addressed by the DOE. Although it does not affect the arguments of project proponents on additionality, which are based on technology and risk barrier, and lack of common practice, at least a proper explanation should have been sought from project proponent.*

**DNV Response:**
DNV acknowledges that the comment relating to investment barrier has not been addressed in the final report and expresses sincere gratitude to the Executive Board for pointing this out.
The project additionality has been demonstrated by analysing the technological and operational barrier, and barrier due to prevailing practice. There is no investment barrier associated with the project and neither is the same presented by the project participant in the PDD for assessment. As this is a small-scale project applying the small-scale modalities and procedures, these require project proponent to only apply at least one of the barriers given in attachment A to annex B of these modalities.
However, the project involves substantial investments in the form of installation of gas holders, compressors, piping network, safety system installation, retrofit of dryer burners and flow meters in the gas line, apart from the upfront investment done during project inception there are yearly repair and maintenance requirement in the project. Back up of investments made during project inception and annual repair and maintenance requirement for the project is attached. (**Supportive VIII and IX**). However, it should be kept in mind that the project proponents have chosen to support the additionality claim by using other barriers than by a financial barrier.

The stakeholder comments in their unedited form were passed on to the project proponent for addressing the issues raised. Response to the comment, received on 30th November 2005, was provided to DNV by M/s Rajaram Maize Products on 21 June 2006 and was found to be in order. The response as received on 21 June 2006 is enclosed herewith. (**Supportive X**).

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully
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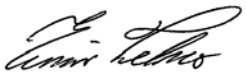

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