



**CDM Project Activity Registration
and Validation Report Form**
*(By submitting this form, designated operational entity confirms
that the proposed CDM project activity meets all validation and
registration requirements and thereby requests its registration)*

Section 1: Request for registration

Name of the designated operational entity (DOE) submitting this form	TÜV SÜD Industrie Service GmbH
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	DEOBAND BAGASSE BASED CO-GENERATION POWER PROJECT, INDIA
Project participants (Name(s))	Triveni Engineering and Industries Ltd
Sector in which project activity falls	Energy industries (1)
Is the proposed project activity a small-scale activity?	Yes / <u>No</u> (underline as applicable)

Section 2: Validation report

List of documents to be attached to this validation report (please check mark):	
<p>X The CDM-PDD of the project activity</p> <p>X An explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations. This explanation is included in the Validation Report No. 806967, Revision 01;</p> <p>X The written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development:</p> <p>X Other documents, including any validation protocol used in the validation</p> <ul style="list-style-type: none"> o Validation Report (Validation Report No. 806967, Revision 01) including a validation protocol, information reference list and a list of persons interviewed by DOE validation team during the validation process. <p>X Information on when and how the above validation report is made publicly available.</p> <p><input type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee</p> <p>X A statement signed by all project participants stipulating the modalities of communicating with the Executive Board and the secretariat in particular with regard to instructions regarding allocations of CERs at issuance</p>	

Executive Summary and Introduction, including

- **Description of the proposed CDM project activity**
- **Scope of validation process (include all documentation that has been reviewed and name persons that have been interviewed as part of the validation, as applicable)**
- **DOE Validation team (list of all persons involved in the validation, describing functions assumed in the validation)**

The project activity takes place adjacent to the sugar plant of Triveni Engineering Industries Limited in Deoband, and involves the installation of an 22 MWe high-pressure cogeneration unit, which is operated next to existing biomass power generation units. The surplus electricity generated by the plant will be exported to the state electricity company, Uttar Pradesh Power Corporation Limited (UPPCL), which is part of the Northern Region grid.

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. TÜV SÜD has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

All documentation that has been reviewed and all persons interviewed as part of the validation are listed in annex 2 of the validation report (Validation Report No. 806967, Revision 01).

Studying the existing documentation belonging to this project, it was obvious that the competence and capability of the validation team has to cover at least the following aspects:

- Knowledge of Kyoto Protocol and the Marrakech Accords
- Environmental and Social Impact Assessment
- Skills in environmental auditing (ISO 14000, EMAS)
- Quality assurance
- Technical aspects of sugar manufacturing process and equipments
- Technical aspects of biomass cogeneration plants
- Monitoring concepts
- Political, economical and technical framework conditions in host country

According to these requirements TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV certification body "climate and energy":

Michael Rumberg is head of the division CDM/JI at TÜV SÜD Industrie Service GmbH. In his position he is responsible for the implementation of validation, verification and certifications processes for greenhouse gas mitigation projects in the context of the Kyoto Protocol. Before entering this company he worked as an expert for renewable energy, forestry, environmental issues, climate change and sustainability within the environmental branch of an insurance company. His competences are covering risk assessments, quality and environmental auditing (EMS auditor), baseline setting, monitoring and verification due to the requirements of the Kyoto Protocol.

Sunil Kathuria is a lead auditor for CDM/JI projects and a lead auditor for quality and environmental management systems (according to ISO 9001 and ISO 14001) at TÜV South Asia, TÜV SÜD Group. He is based in New Delhi. In his position he is implementing validation, verification and certification audits for CDM projects. He has received extensive training in the CDM validation process and participated already in several CDM project assessments.

Prabhat Kumar is an auditor for quality and environmental management systems (according to ISO 9001 and ISO 14001) and an auditor for CDM/JI projects at TÜV South Asia, TÜV SÜD Group. He is also based in New Delhi. He has received extensive training in the CDM validation process and

participated already in several CDM project assessments.

Dr. Alexandra Babeck is a technical expert on food technology, energy systems and environmental technologies and an auditor for environmental management systems (UMA-TÜV of TÜV SÜD). Before joining the TÜV SÜD Industrie Service GmbH as co-operation partner she worked as an expert for energy efficiency, renewable energy, environmental technologies and emission trading. Her competences are covering energy and environmental auditing, baseline setting, monitoring and verification due to the requirements of the Kyoto Protocol. She participated already in several CDM project assessments.

The audit team covers the above mentioned requirements as follows:

- Knowledge of Kyoto Protocol and the Marrakech Accords (RUMBERG / KATHURIA / BABECK)
- Environmental and Social Impact Assessment (ALL)
- Skills in environmental auditing (ALL)
- Quality assurance (ALL)
- Technical aspects of sugar manufacturing process (BABECK / KATHURIA)
- Technical aspects of biomass cogeneration plants and grid operation (ALL)
- Monitoring concepts (RUMBERG / KATHURIA / BABECK)
- Political, economical and technical framework conditions in host country (KATHURIA / KUMAR)

In order to have an internal quality control of the project, a team of the following persons has been composed by the certification body "climate and energy":

Werner Betzenbichler (head of the certification body "climate and energy")

For further details please refer to the "Introduction" section of the validation report (Validation Report No. 806967, Revision 01).

Description of methodology for carrying out validation

- **Review of CDM-PDD and additional documentation attached to it**
- **Assessment against CDM requirements (e.g. by use of a validation protocol)**
- **Report of findings by the DOE, e.g. by use of type of findings (e.g. corrective action requests, clarifications or observations). Please explain the way findings are "labelled" during validation.**
- **Include statements or assessments in the section "Conclusions, final comments and validation opinion" below.**

The validation consists of the following three phases:

- Desk review
- Follow up interviews
- Resolution of clarification and corrective action requests

The audit team has been provided with the first PDD version in October 2005. Based on this documentation, a document review and a fact finding mission in form of an on site audit has taken place. In response to the CAR and CRs the PDD has been revised. A final PDD version was submitted in August 2006. The PDD and the results from the on site audit serves as the basis for the assessment presented herewith.

In order to ensure transparency, a validation protocol was customised for the project, according to the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The

validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Annex 1 to the validation report.

Findings established during validation can either be seen as a non fulfillment of validation criteria or where a risk to the fulfilment of the project objectives is identified. Such findings are termed Corrective Action Request. The term "Clarification Request" is used when the validation team has identified a need for further clarification.

The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 of the validation report and documented in more detail in the validation protocol in annex 1 to the validation report. The validation of the project resulted in seven Clarification and eight Corrective Action Requests.

For further details please refer to the "Methodology" section of the validation report (Validation Report No. 806967, Revision 01).

Explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations;

- **Description of how and when the PDD was made publicly available**
- **Description of how comments were received and made publicly available**
- **Explanation of how due account has been taken of comments received**
- **Compilation of all comments received (Identify the submitter)**

TÜV SÜD published the project documents on its website and invited comments from Parties, stakeholders and non-governmental organizations during a period of 30 days, from October 15 to November 13, 2005.

Published on:

http://www.netinform.de/KE/Wegweiser/Guide2.aspx?ID=1304&Ebene1_ID=26&Ebene2_ID=328&mode=1

During the commenting period one comment was received. The comment has been submitted on November 11, 2005 by Mr. Rahul Subhash Agnihotri. Mr. Rahul Subhash Agnihotri is not an accredited observer organisation to the United Nations Framework Convention on Climate Change Conference of the Parties. The comment has subsequently not been considered.

Conclusions, final comments and validation opinion

- **Provide conclusions on each requirement under paragraph 37 of the CDM modalities and procedures, describing how these requirements have been meet. This shall include assessments and findings (e.g. corrective action requests, clarifications or observations) in relation to each requirement, including a confirmation that all issues raised have been addressed to the satisfaction of the DOE.**
- **Final comments and validation opinion**

TÜV SÜD has performed a validation of the "Deoband Bagasse based Co-generation Power Project, India". The project is a unilateral CDM project. Party involved is India as host country. The validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article

12 of the Kyoto Protocol, the CDM modalities and procedures and subsequent decisions by the CDM Executive Board.


The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project does meet all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project will hence be recommended by TÜV SÜD for registration with the UNFCCC under the CDM.

By displacing fossil fuel-based electricity with electricity generated from bagasse, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An analysis of the barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

Additionally the assessment team reviewed the estimation of the projected emission reductions. We can confirm that the indicated amount of emission reduction of 854 695 tonnes CO₂e over a crediting period of ten years, resulting in a calculated annual average of 85 470 tonnes CO₂e, represents a reasonable estimation using the assumptions given by the project documents.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

The DOE declares herewith that in undertaking the validation of this proposed CDM project activity it has no financial interest related to the proposed CDM project activity and that undertaking such a validation does not constitute a conflict of interest which is incompatible with the role of a DOE under the CDM.

By submitting this validation report, the DOE confirms that all validation requirements are met.	Michael Rumberg	
Name of authorized officer signing for the DOE		
Date and signature for the DOE	 August 16, 2006	
Section below to be filled by UNFCCC secretariat		
Date when the form is received at UNFCCC secretariat		
Date at which the registration fee has been received		
Date at which registration shall be deemed final		
Date of request for review, if applicable		
Date and number of registration	Date	Number