



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	Det Norske Veritas Certification (DNV Certification)
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	UTE Barreiro S.A. Renewable Electricity Generation Project
Project participants (Name(s))	Vallourec & Mannesmann Tubes (Brazil) and EcoSecurities (UK)
Sector in which project activity falls	Energy (renewable electricity generation)
Is the proposed project activity a small-scale activity?	Yes

Section 2: Validation report

List of documents to be attached to this validation report (please check mark):	
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> The CDM-PDD of the Project activity <input checked="" type="checkbox"/> 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; <input type="checkbox"/> 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 assist it in achieving sustainable development: <ul style="list-style-type: none"> ○ (Attach a list of all Parties involved and attach the approval(in alphabetic order)) <input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation. <ul style="list-style-type: none"> ○ Preliminary Validation Report of 29 December 2004 (DNV report 2005-0025, rev 02), including a validation protocol and a list of person interviewed by DOE validation team during the validation process. <input type="checkbox"/> Information on when and how the above validation report is made publicly available. <input type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee. <input type="checkbox"/> 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 allocation of CERs at issuance. 	

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 consists of the construction of a 12.9 MW thermoelectric plant that will generate part of the electricity required by Barreiro's Integrated Steel Plant (Usina Siderúrgica Integrada do Barreiro). The thermoelectric plant may use three different fuels: blast furnace gas, wood tar and, exceptionally, natural gas. The plant is designed to operate at 100% capacity using only blast furnace gas and wood tar. During regular operation conditions no natural gas will be used. Nevertheless, in the case of reduced supply of the other two fuels, in order to ensure the electricity generation, natural gas may be used. As a consequence of the construction of the plant there will be a reduced need for electricity supplied from the grid for the operation of the steel plant.

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, the simplified modalities and procedures for small-scale CDM project activities and the relevant decisions by the CDM Executive Board. The validation team has, based on the recommendation in the IETA/PCF Validation and Verification Manual, employed a risk-based approach, focusing on the identification of significant risks for the project implementation and the generation of CERs.

The validation team consists of the following personnel:

Mr Luis Filipe Aboim Tavares	DNV Rio de Janeiro
Mr Michael Lehmann	DNV Oslo
Mr Ramesh Ramashandran	DNV Chennai
Mr Einar Telnes	DNV Oslo

For further details, please refer to the "Introduction" Section of DNV Certification's Preliminary Validation Report (DNV report 2005-0025, rev 02).

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 consisted of the following three phases:

- a desk review of the Project design and the baseline and monitoring methodology;
- follow-up interview with Project stakeholders;
- the resolution of outstanding issues and the issuance of a preliminary validation report and opinion.

The Project Design Document submitted by V&M do Brasil SA on 11 August 2003 and the revised PDD of December 2004 were reviewed.

On 29 October 2003 DNV performed interviews with staff of V&M UTE Barreiro /7//8/ and EcoSecurities /9/ during a site visit at the UTE Barreiro plant at Belo Horizonte, Minas Gerais State, to confirm and to resolve issues identified in the document review.

In order to ensure transparency, a validation protocol has been customized 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 validation the identified criteria.

Findings established during the validation can either be seen as a non- fulfilment of validation criteria or where a risk to the fulfilment of project objectives is identified. Such findings are termed Corrective Action Requests (CAR). The term Clarification may be used where additional information is needed to fully clarify an issue. With the exception of one Corrective Action Request related to the approval of the project by the participating Parties, the two Corrective Action Requests raised by the validation team were resolved through communications with the project participants. To guarantee the transparency of validation process, the concerns raised by DNV Certification and the response provided by the project participants are documented in Table 3 of the Validation Protocol in Appendix A of DNV Certification's Preliminary Validation Report (DNV report 2005-0025, rev 02).

For further details, please refer to the "Methodology" Section of DNV Certification's Preliminary Validation Report (DNV report 2005-0025, rev 02) and the IETA/PCF Validation and Verification Manual (www.vvmanual.info)

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)**

DNV published on 19 August 2003 the PDD of May 2003 on the DNV Climate Change web site (<http://www.dnv.com/certification/ClimateChange>). Through the Climate-L mail list Parties, stakeholders and non-governmental organizations were invited to within 19 September 2003 comment on the validation requirements. No comments were received during this period.

Following DNV's DOE accreditation, the PDD was republished on the DNV Climate Change web site. Parties, stakeholders and NGOs were through the UNFCCC CDM website invited to provide comments on the validation requirements during a 30 days period from 2 September 2004 to 2 October 2004. One comment was received during this period. The comment (in unedited form) and DNV Certification's response is given below.

For further details, please refer to the "Comments by Parties, stakeholders and NGOs" Section of DNV Certification's Preliminary Validation Report (DNV report 2005-0025, rev 02).

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 met. 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

Det Norske Veritas Certification (DNV) is currently performing a validation of the UTE Barreiro S.A. Renewable Electricity Generation Project at Belo Horizonte, Minas Gerais State, Brazil (hereafter called "the project"). The validation was performed on the basis of UNFCCC criteria for small-scale CDM project activities and relevant Brazilian criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The proposed thermoelectric power project with a capacity of 12.9 MW will generate electricity utilizing blast furnace gas of the integrated Barreiro steel plant and wood tar from charcoal.

The project is not expected to have considerable environmental impacts. An Environmental Impact Study as required by Brazilian law has been carried out and the project has received the environmental licences by FEAM/COPAM.

By promoting renewable energy, the project is in line with the current sustainable development priorities of Brazil. Nevertheless, the Brazilian DNA has not yet confirmed that the project assists Brazil in achieving sustainable development.

Being a renewable energy project activity with an output capacity of less than 15 MW, the project meets the criteria for Renewable electricity generation for the grid (Type I.D) as defined in Appendix B of the simplified modalities and procedures for small-scale CDM project activities.

The electric energy generated by the project will be used by the integrated Barreiro steel plant and will reduce the imports from grid electricity and thus displace energy from the grid. As this project activity reduces grid electricity imports and thus avoids marginal fossil fuel based electricity generation, DNV is in favour of the project being considered under category I.D. This is, however, subject to the final acceptance of the CDM Executive Board.

The project applies one of the simplified baseline methodologies proposed for this project activity category. The average of the approximate operating margin and the build margin is determined based on an International Energy Agency (IEA) study for Brazil. Considering that this study was carried out recently, that it is the only publicly available information on the Brazilian grid and that other necessary data for determining the operating and build margin is not public available in Brazil, the use of the data from the IEA study are deemed adequate for calculating the combined margin. The baseline methodology has been applied correctly and the assumptions made for the selected baseline scenario are sound.

The additionality of the project is demonstrated through a barrier test. The presented technological and investment barriers demonstrate the project is not a likely baseline scenario.

By displacing fossil fuel-based electricity, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

The monitoring plan sufficiently specifies the monitoring requirements of the main project indicators.

In summary, the UTE Barreiro S.A. Renewable Electricity Generation Project meets all present and

relevant UNFCCC criteria and the simplified modalities and procedures for small-scale CDM project activities. However, the project has not yet obtained approval by the participating Parties, including a confirmation by the host Party that the project contributes to sustainable development in Brazil.

For further details, please refer to the "Validation Findings" Section and Table 1 of the Validation Protocol in Appendix A of DNV Certification's Preliminary Validation Report (DNV report 2005-0025, rev 02).

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.

Note: The UTE Barreiro S.A. Renewable Electricity Generation Project has not yet obtained written approval of the participating Parties, including a confirmation by the host Party that the project assists in achieving sustainable development.

Name of authorized officer signing for the DOE

Michael Lehmann

Date and signature for the DOE

29 December 2004, *Michael Lehmann*

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