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
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Piratini Energia S.A. Project
Project participants (Name(s))	*Piratini Energia S.A.*
Sector in which project activity falls	Scopes 1, 13 & 15
Is the proposed project activity a small-scale activity?	Yes / No *(underline as applicable)*

Section 2: Validation report	
List of documents to be attached to this validation report (please check mark)*:*	

- X The CDM-PDD of the project activity
- ❑ 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;
- ❑ 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:
  - (Attach a list of all Parties involved and attach the approval (in alphabetical order))
- X Other documents, including any validation protocol used in the validation
  - (comprehensive list of documents attached clearly referenced)
  - List of persons interviewed by DOE validation team during the validation process
  - Any other documents. Please specify (validation report no. 644484).

- ❑ Information on when and how the above validation report is made publicly available.
- ❑ Banking information on the payment of the non-reimbursable registration fee
- ❑ 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

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 primary objective of the Piratini Project is to help meet Brazil's rising demand for energy due to economic growth and to improve the supply of electricity, while contributing to the environmental, social and economic sustainability by increasing renewable energy's share of the total Brazilian (and the Latin America and the Caribbean region's) electricity consumption

The project consists in the generation of electricity with a thermoelectric power plant using wood residues from nine wood processing companies in the city of Piratini, in the State of Rio Grande do Sul, Brazil.

The electricity is generated with a high-pressure boiler (operating conditions: pressure, 42 kgf/cm^2, steam temperature, 440 °C, steam production 50,000 kg/h) and a multiple stage condensing steam turbine (output pressure 0.083 kgf/cm^2) coupled with a 10 MW_{el} power generator.

In January 2002 the entire power plant was completed, and the Piratini Project sold its first MWh to the local power utility CEEE. The Piratini Project buys wood residues from sawmills on the region, which guarantee the supply to the city of Piratini.

The power plant when fully operational consumes around 150,000 tonnes of wood residues per year, which are fully provided by sawmills of the region. All sawmills process roughly 220,000 tonnes of wood per year. They buy wood from a sustainable pinewood forest of 17,000 hectares, which is reforested in the rate of 500 hectares per year.

A second component of the project is thus related to the substantial reductions in methane emissions from the wood waste, which used to be left to decay. Wood residues have come from three different types of sources (sawmill, clearing roads, and landfill).

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.

The validation is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

The audit team has been provided with a draft PDD April 2005. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version submitted in October 2005 serves as the basis for the assessment presented herewith. That final PDD has been submitted in which next to responses to the issued CAR/CRs the project participants have been changed. All changes aim at a clarification of open issues and have resulted in substantiating the arguments given in the final version of the PDD. The changes are not considered to be significant with respect to the qualification of the project as a CDM project - as they rather have helped to clarify single aspects. Hence no repetition of the public stakeholder process has taken place.

Team:

Markus Knödlseder (Project manager, GHG auditor)
Klaus Nürnberger(GHG auditor)
Wilson Tomao (Local expert, GHG auditor)

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 project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual (for further information see www.vvmanual.info), an initiative of all Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project, according to the Validation and Verification Manual (VVM). 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 TÜV SÜD has documented how a particular requirement has been validated and the result of the validation.

The PDD and additional background documents related to the project design and baseline were reviewed. Those documents were submitted by the Ecoinvest, Brazil, the consultant of Piratini Energia S.A.

On May 26, 2005 TÜV SÜD performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of EcoInvest, Piratini Energia S.A. and affiliated companies were interviewed. The main topics of the interviews are summarised in Table 1. The complete and detailed list of all persons interviewed is enclosed in Appendix B to this report. Further information received by following telephone conferences and by e-mail.

In the following sections the findings of the validation are stated. The validation findings for each validation subject are presented as follows:

1) The findings from the desk review of the final project design document and the findings from interviews during the follow up visit are summarised. A more detailed record of these findings can be found in the Validation Protocol in annex 1.

2) Where TÜV SÜD had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in annex 1. The validation of the project resulted in two Corrective Action Request and five Clarification Requests.

3) Where Clarification or Corrective Action Requests have been issued, the exchanges between the Client and TÜV SÜD to resolve these Clarification or Corrective Action Requests are summarised.

4) The final conclusions for validation subject are presented.

The validation findings relate to the project design as documented and described in the final project design documentation.

Further details can be seen in validation report no. *644484*

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 document on UNFCCC website and on its own website on May 18, 2005 and invited comments for 30 days by Parties, stakeholders and UNFCCC accredited non-governmental organisations. The PDD and the comment are publicly available under the following link: http://www.netinform.de/KE/Wegweiser/Guide2E.aspx?Ebene1_ID=183.

The project and the published PDD states clearly and correct the applied methodologies which are type I.D. and III.E. The UNFCCC webpage stated however that methodology of type I.D. and III.D are applied, which is misstated.

As the really applied methodologies are mentioned correctly in the PDD; additional that confusion does not affect the assessment of the project and hence the commenting of the project, that confusion is a minor issue

No comments received.

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 Piratini Energia S.A. Project, Brazil. The validation was performed on the basis of UNFCCC criteria as well as criteria given to provide for consistent project operations, monitoring and reporting.

In summary, it is TÜV SÜD´s opinion that the Piratini Project, as described in the revised project design document of October 2005, meets all relevant UNFCCC requirements for the CDM, set by the Kyoto Protocol, the Marrakech Accords and relevant guidance by the CDM Executive Board and that the project furthermore meets all relevant host country criteria and correctly applies the underlying small scale CDM project baseline and monitoring methodologies.

Hence, TÜV SÜD will recommend the "Piratini Project" for registration as CDM project activity by the CDM Executive Board.

Prior to the submission of this validation report to the CDM Executive Board, TÜV SÜD will have to receive the written approval of the DNA of involved parties, including confirmation by the DNA of Brazil that the project assists in achieving sustainable development.

Additionally the assessment team reviewed the estimation of the projected emission reductions. We can confirm that the indicated amount of emission reductions of 1,212,773 tonnes CO_{2e} over a renewable crediting period of seven years, resulting in a calculated annual average of 173,253 tonnes CO_{2e} represents a reproducible 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. Name of authorized officer signing for the DOE	Werner Betzenbichler		
Date and signature for the DOE	31/10/2005		
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

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