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 Industrie Service GmbH TÜV SÜD Group
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	BK Energia Itacoatiara Project
Project participants (Name(s))	BK Energia Itacoatiara Ltda. (Brazil)
Sector in which project activity falls	Energy generation: type I, renewable energy projects; category I.D – renewable electricity generation for a grid (1) and Methane emissions avoidance: type III, other project activities; category III.E – avoidance of methane production from biomass decay through controlled combustion (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

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. 629709*, rev 04*;

❑ 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:

X Other documents, including any validation protocol used in the validation

- Validation Report (Validation Report No. 629709*, rev 04*), including a validation protocol, a information reference list and a list of persons interviewed by DOE validation team during the validation process.

❑ 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 project consists in the generation of electricity with a thermoelectric power plant using wood residues from an FSC[1] certified forest management and wood processing company in the city of Itacoatiara, in the State of Amazonas, Brazil.

The project was planned by and is belonging to BK Energia Itacoatiara Ltda., a Brazilian Consortium consisting of two companies; Koblitz Ltda. and Brennand Group. The power plant started its operation at the end of 2002 on the site of the Mil Madeireira Itacoatiara Ltda. wood processing plant, which guarantees the supply of wood residues.

The project is operated by Precious Wood Energia Itacoatiara Ltda. that is a special purpose company set up to use residues from the FSC-certified operations of the wood processing company Mil Madeireira Itacoatiara Ltda., in the city of Itacoatiara, State of Amazonas, north of Brazil. Precious Wood Energia Itacoatiara Ltda..

The power plant consists of a high pressure boiler (42 bar – 420° C) and a multiple stage condensing steam turbine coupled with a 9 MW_{el} generator with an expected electricity output of around 56,000 MWh (assuming a 71% capacity factor and having deducted approx. 5,000 MWh own consumption). The project replaces diesel generation and covers around 70% of the electricity demand in the city of Itacoatiara.

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.

All documentation that has been reviewed and name of persons that have been interviewed as part of the validation are listed in Annex 2 to the validation report (Validation Report No. 629709, rev 04).

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":

Markus Knödlseder: After his professional training as chemical assistance Mr. Knödlseder studied environmental engineer at the University of Applied Science in Bingen, Germany. Beside his main focus in studies of environmental technologies, he dealt with environmental management

[1] The Forest Stewardship Council (FSC) is an international non-profit organization, founded in 1993 to support environmentally appropriate, socially beneficial, and economically viable management of the world's forests.

and environmental controlling issues. He has been a staff at the department "Carbon Management Service" located in the head office of TÜV Industrie Service GmbH, TÜV SÜD Group in Munich since Oct. 2001. He has been involved in the topic of environmental auditing, baselining, monitoring and verification due to the requirements of the Kyoto Protocol with special focus on renewable energies. Mr. Knödlseder is also an auditor for environmental management systems (ISO 14.000).

Klaus Nürnberger is head of the division energy certification at TÜV Industrie Service GmbH TÜV SÜD Group. In his position he is responsible for the implementation of verification and certifications processes for electricity production based on renewable sources. The division has assessed more than 600 plants and sites all over Europe. He has received extensive training in the CDM and JI validation processes and participated already in several CDM and JI project assessments.

Thaler Johannes graduated as Master of environmental Economy at the University of Augsburg. During his study he got first experiences in environmental management systems. His master thesis was about a fuel switch program in Brazil as a CDM project. Due to his emigration to Brazil he has been working for TÜV SÜD as a GHG auditor as a free lancer since March 2005.

The audit team covers the above mentioned requirements as follows:

- Knowledge of Kyoto Protocol and the Marrakech Accords (KNÖDSLEDER/NÜRNBERGER)
- Environmental and Social Impact Assessment (KNÖDSLEDER/NÜRNBERGER)
- Skills in environmental auditing (ALL)
- Quality assurance (KNÖDSLEDER/NÜRNBERGER)
- Energy generation technologies (NÜRNBERGER, KNÖDLSEDER)
- Methane Avoidance (NÜRNBERGER)
- Technical aspects of methane avoidance, methane generation in disposals and grid operation (KNÖDSLEDER/NÜRNBERGER)
- Monitoring concepts (ALL)
- Political, economical and technical random conditions in host country (THALER/KNÖDLSEDER)

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 certification body "climate and energy")

For further details, please, refer to the "Introduction" section of the validation report (Validation Report No. *629709*, rev 04).

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 of the project 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 a draft PDD in 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 guidance given by the approved methodology and the findings indicated in the audit process. The final PDD version was submitted in September 2005. The validation findings and their clarification relate to the project design as documented and described in the final project design documentation.

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 (Validation Report No. *629709*, rev 04).

Findings established during validation can either be seen as non fulfilment of validation criteria or where a risk to the fulfilment of the project objectives is identified. Such findings are termed Corrective Action Requests. 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 communications 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 (Validation Report No. 629709, rev 04) and documented in more detail in the validation protocol in Appendix 1 to the report. The validation of the project resulted in no Corrective Action Requests and four Clarification Requests.

For further details, please, refer to the “Methodology” section of the validation report (Validation Report No. 629709, rev 04).

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 its website on May 4, 2005 and invited comments within Jun 3, 2005 by Parties, stakeholders and UNFCCC accredited non-governmental organisations.

The PDD and the comment is publicly available under the following link: http://www.netinform.de/KE/files/pdf/Ecoinvest-PWE_Itacoatiara_CDM_SSC.pdf .

No comments were 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 BK Energia Itacoatiara Project in Brazil. 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 validation of the project consists of the following three phases:

Desk review

Follow-up interviews

Resolution of clarification and corrective action requests

The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communications between the client and TÜV SÜD in a satisfactory manner.

In our opinion, the project does meet all relevant UNFCCC requirements for the CDM and all relevant host country criteria.

The participation requirements defined in paragraph 28-30 of the modalities and procedures (decision 17/CP.7) for the Clean Development Mechanism are satisfied.

Comments by local stakeholder have been invited, a summary of comments received has been provided and a report on how due account was taken of any comment has been received.

An analysis of the environmental impacts of the project activity has been submitted.

The project is based on an approved methodology.

By avoiding GHG emissions from disposed new biomass and by substitution of fossil fuel generated electricity with biomass fuel, the project results in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An economic comparison with alternative scenarios and an analysis of the investment and technological 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.

Provisions for monitoring, verification and reporting are in accordance with the requirements.

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 meets all relevant UNFCCC requirements for the CDM.

Hence, we will request the registration of BK Energia Itacoatiara Project, Brazil as CDM project activity. 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 Brazil, including confirmation 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 amounts of emission reductions of annually 166,846.5 tonnes CO_{2e} over a crediting period of seven years represents a conservative estimation using the assumptions given by the project documents.

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	08/09/2005

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