

 <p align="center">CDM Project Activity Registration and Validation Report Form <i>(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)</i></p>	
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	ARAPUCEL - Small Hydroelectric Power Plants Project
Project participants (Name(s))	Araputanga Centrais Elétricas S. A. Arapucel Indiavaí S.A. Arapucel Ombreiras S.A.
Sector in which project activity falls	1 – Energy industries
Is the proposed project activity a small-scale activity?	<u>No</u> / Yes (<i>underline as applicable</i>)
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. 567510, rev 01</p> <p><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 assists it in achieving sustainable development:</p> <p>X Other documents, including any validation protocol used in the validation</p> <p> <input type="checkbox"/> Validation Report (Validation Report No. 567510, rev 01, including a validation protocol, a information reference list and a list of persons interviewed by DOE validation team during the validation process.</p> <p><input type="checkbox"/> 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><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 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 objective of the ARAPUCEL Project is to generate renewable electricity using hydro power resources and to sell the generated output to the South-Southeast-Midwest Grid on the basis of a power purchase agreement (PPA). The project activity will generate greenhouse gas (GHG) emission reductions by avoiding CO₂ emissions from electricity generation by fossil fuel power plants that supply the South-Southeast-Midwest Grid, which is connected to the North- Northeast Grid of Brazil and with one interconnection to Argentinian grid.

The proposed ARAPUCEL Project is located along the Jauro River within the State of Mato Grosso. The project involves the installation of 3 hydro power plants, providing a total of 74 MW. All of them are according Brazilian regulation operated as "small hydro power plants". Project participants are the three operators of the individual plants Araputanga Centrais Elétricas S. A., Arapucel Indaiavaí S.A. and Arapucel Ombreiras S.A. as Project Proponents. Majority shareholder of all these Brazilian project participants is BK Energia Ltda.

The category of the project activity is in Sectoral Scope 1 – Energy Industries.

The project starting date is September 1, 2002 and the seven year renewable crediting period starts September 1, 2002, too.

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 based on the information made available to TÜV SÜD and the engagement conditions detailed in this report. TÜV SÜD can not guarantee the accuracy or correctness of this information. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on this report.

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 end of November 2004. Based on this documentation a document review and a fact finding mission in form of an on site audit have taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process also taking into account new developments on the regulatory side (as for example the new PDD format). This PDD version submitted in May 2005 was published from May 4 until to June 3, 2005. This revised PDD serves as the starting point for the final validation presented herewith. Afterwards the PDD was revised once more, including a changed crediting period, most recent numbers of daily dispatch information and new weights regarding operating margin factor and build margin factor respecting the guidance by EB. This version submitted in November 2005, which has also undergone a renewed document review, serves as the basis for the final assessment presented herewith.

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

<ul style="list-style-type: none"> • Werner Betzenbichler (Project manager, GHG lead auditor) • Odair Roveri (Lead Auditor Environmental Management Systems (ISO 14001), Local expert, GHG auditor – trainee) • Klaus Nürnberger (Lead auditor Energy Certification, GHG auditor) • Internal Quality Control by Michael Rumberg <p>For further details, please, refer to the “Methodology” section of the validation report (Validation Report No. 567510, rev 01)</p>
<p>Description of methodology for carrying out validation</p> <ul style="list-style-type: none"> • 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.
<p>The validation of the project consists of the following three phases:</p> <ul style="list-style-type: none"> • Desk review • Follow-up interviews • Resolution of clarification and corrective action requests <p>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:</p> <ul style="list-style-type: none"> • 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. <p>The validation protocol consists of three tables. The different columns in these tables are described; the completed validation protocol is enclosed in Annex 1 to the validation report.</p>
<p>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;</p> <ul style="list-style-type: none"> • 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)
<p>TÜV SÜD published the project documents on its website on May 4, 2005 and invited comments within 30 days, until June 3, 2005 by Parties, stakeholders and non-governmental organisations. The PDD and the received comment have been publicly available under the following link:</p> <p>http://www.netinform.de/KE/Wegweiser/Guide2E.aspx?Ebene1_ID=179</p>

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**

TÜV SÜD has performed a validation of the ARAPUCEL Project in the state of Mato Grosso 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.

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 summary, it is TÜV SÜD's opinion that the ARAPUCEL 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 baseline and monitoring methodology ACM0002.

Hence, TÜV SÜD will recommend the "ARAPUCEL 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.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, 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 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.

Additionally the assessment team reviewed the estimation of the projected emission reductions. We can confirm that the indicated amount of emission reductions of 790,209 tonnes CO₂e over a renewable crediting period of seven years, resulting in a calculated annual average of 112,887 tonnes CO₂e 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 de-scribed 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		Michael Rumberg	
Date and signature for the DOE		09/11/2005	
<i>Section below to be filled by UNFCCC secretariat</i>			
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