



**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**

<b>Name of the designated operational entity (DOE) submitting this form</b>	TÜV NORD CERT GmbH
<b>Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration</b>	Generate energy from a renewable source (Rosa dos Ventos Wind Energy Project)  (ver.02 – 2006-18-08)
<b>Project participants (Name(s))</b>	Rosa dos Ventos Ltda., Ceará, Brazil  Carbon Capital Market, London, United Kingdom
<b>Sector in which project activity falls</b>	1 – Energy Industries (renewable - / non-renewable sources)
<b>Is the proposed project activity a small-scale activity?</b>	<u>Yes</u> / No ( <i>underline as applicable</i> )

**Section 2: Validation report**

<b>List of documents to be attached to this validation report (please check mark):</b>	
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The CDM-PDD of the project activity</li> <li><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 (Report of TÜVNORD BRS-016/2006-06/02, 2006-11-23-ver.01);</li> <li><input checked="" 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: <ul style="list-style-type: none"> <li>o (Attach a list of all Parties involved and attach the approval (in alphabetical order))</li> </ul> </li> <li><input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation <ul style="list-style-type: none"> <li>o (comprehensive list of documents attached clearly referenced)</li> <li>o List of persons interviewed by DOE validation team during the validation process</li> <li>o Any other documents. Please specify.</li> </ul> </li> <li><input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available.</li> <li><input type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee</li> <li><input checked="" 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</li> </ul>	

### 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)

### Description of the proposed CDM project activity

This bundled project activity involves two sites with altogether 17 Enercon wind turbines of 800 kW capacity with a total installed capacity of 13.60 MW, generating around 50.89 GWh per year. The Lagoa do Mato Wind Farm involves four wind turbines with an installed capacity of 3.20 MW (4 x 800 kW) and the Canoa Quebrada Wind Farm involves thirteen wind turbines with an installed capacity of 10.50 MW.

This project is intended to reduce CO<sub>2e</sub> emissions to the extent of electricity displaced from the regional grid (Northeast geo-electric grid system). The estimated amount of emission reductions over the chosen 07-year "renewable crediting period" is **95,273 tCO<sub>2e</sub>** between 1<sup>st</sup> March 2007 and 28<sup>th</sup> February 2014.

### Scope of the validation process

The validation scope is given as an independent and objective review of the project design, the project's baseline study and monitoring plan which are included in the PDD and other relevant supporting documents.

The items covered in the validation are listed below:

- UNFCCC & Host Country Criteria
- CDM Project Description
- Project Baseline
- Monitoring Plan
- Background investigation and follow up interviews
- Global Stakeholder consultation
- Draft validation reporting with CARs & CRs
- Final validation reporting.

The information included in the PDD and the supporting documents were reviewed against the requirements and criteria mentioned above. The TÜV NORD JI/CDM CP 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 NORD and on the contract conditions.

Persons that have been interviewed are Mr. Alejandro Bango (Ecológica Assessoria - Consultant), Mr. Thiago Chagas (Ecológica Assessoria - Consultant), Mr. Gustavo Rodrigues Silva (Braselco – Brasil Energias Solar e Eólica Ltda – Enginner.), Mr. Armando Abreu (Rosa dos Ventos Ltda - Director), Mrs. Mara Lorena (DNA Brazil - Expert), Mr. Luiz Geraldo de Oliveira Moura (NEPA - President-Director).

The following documents were provided by the project participant and reviewed throughout the validation process:

<ul style="list-style-type: none"> <li>• Prefeitura Municipal de Aracati: Atestado de Anuência (Approval)</li> </ul>
<ul style="list-style-type: none"> <li>• Application for renewal of installation licenses for Lagoa do Mato</li> </ul>
<ul style="list-style-type: none"> <li>• ANEEL - Despacho No. 971, de 5 de agosto de 2005; for Canoa Quebrada</li> </ul>
<ul style="list-style-type: none"> <li>• ANEEL - Despacho No. 479, de 13 de abril de 2005 ; for Lagoa do Mato</li> </ul>
<ul style="list-style-type: none"> <li>• Composition of social capital of Rosa dos Ventos</li> </ul>
<ul style="list-style-type: none"> <li>• Invitation Commentary to Local Stakeholders and Act of Receiving Voucher by Local Stakeholder</li> </ul>
<ul style="list-style-type: none"> <li>• Installation License Canoa Quebrada (valid until 2008-02-20)</li> </ul>
<ul style="list-style-type: none"> <li>• Installation License Lagoa do Mato (valid until 2003-03-21)</li> </ul>
<ul style="list-style-type: none"> <li>• Model letter to local stakeholders (Version 06-03-22)</li> </ul>
<ul style="list-style-type: none"> <li>• 1- Draft Project Design Document of "Rosa dos Ventos wind energy project" (hosted for public comments during 16 Feb'06 to 18 Mar'06).</li> <li>• 2- Final Project Design Document of "Rosa dos Ventos wind energy project" (2006-08-18 – version 02)</li> </ul>
<ul style="list-style-type: none"> <li>• Simplified Environmental Report (Canoa Quebrada) (SEMACE 02411711-0 – Version Feb'03)</li> </ul>
<ul style="list-style-type: none"> <li>• Simplified Environmental Report (Lagoa do Mato) (SEMACE 02411713-0 – Version Feb'03)</li> </ul>
<ul style="list-style-type: none"> <li>• Technical Report: Canoa Quebrada Wind Farm – Estimation of Annual Energy output Canoa Quebrada Wind Farm 10,4 MW</li> </ul>
<ul style="list-style-type: none"> <li>• Technical Report: Lagoa do Mato Wind Farm – Estimation of Annual Energy output Lagoa do Mato Wind Farm 3,2 MW</li> </ul>
<ul style="list-style-type: none"> <li>• Calculation sheet of baseline study and emission reduction in excel</li> </ul>

For purpose of background information additional documents were reviewed. For details please refer to the validation report.

#### **DOE validation team**

The validation team was led by **Mr. Rainer Winter**. Mr. Winter works at TÜV NORD CERT GmbH as ISO 9001 and ISO 14001 auditor, as an environmental verifier for EMAS and as a DEHSt-appointed

emission verifier in the framework of the EU-ETS. Mr. Winter has been appointed as JI/CDM assessor and is in charge of the TÜV NORD JI/CDM CP. For this validation he was assisted by:

**Maria Carolina Crisci Coelho**, BRTÜV-Brazil (TÜV NORD Brazil), Mrs. Coelho is ISO 14001 auditor and Product Manager for CDM Services for BRTÜV. She is an appointed expert for JI/CDM certification program of TÜV NORD CERT GmbH.

**Dr. Gilberto Andrade**, BRTÜV-Brazil (TÜV NORD-Brazil), Dr. Andrade is Lead Auditor for 14001/9001 and Tutor for Lead Auditor 14001 and 9001 Training Courses. Currently he is the director of operations of BRTÜV. He is an appointed expert for the TÜV NORD JI/CDM certification program.

The validation report is verified by:

**Mr. Wolfgang Wielpütz**. He is ISO 9001 and 14001 auditor, environmental verifier for EMAS and DEHSt-appointed emission verifier in the framework of EU-ETS. He is appointed JI/CDM assessor. Mr. Wielpütz is the head of the department: "integrated management systems, environmental and occupational safety" and deputy chief of TÜV NORD CERT GmbH.

#### 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 was carried out from February to November '06. The validation consisted of the following three phases:

- A desk review of the PDD (incl. annexes) and supporting documents with the use of a customised validation protocol according to the Validation and Verification Manual;
- Background investigation and follow-up interviews with personnel of the project proponent, the consultant, legal authorities and other stakeholders;
- Reporting of validation findings taking into account the public comments received on TÜV NORD website.

The report includes Corrective Action Requests and Clarification Requests (CAR and CR) identified in the course of this validation.

Throughout the validation 07 CARs and 13 CRs were raised.

The final validation started after issuance of proposed corrective action (CA) of these CAR and CR by the project proponent. The validator has assessed the proposed CA with a positive result and after the closure of these CAR and CR the project proponent has issued the final version of the PDD. On the basis of this the final validation report and opinion were issued.

In order to ensure consideration of all relevant assessment criteria, a validation protocol was used. The protocol shows, in a transparent manner, criteria and requirements, means of verification and the results from pre-validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;
- It ensures a transparent validation process where the independent entity will document how a

particular requirement has been validated and the result of the determination.

For further information according to the validation protocol see annex of the Validation Report.

**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)**

The PDD was made publicly available through TÜV NORD JI/CDM CP website [www.global-warming.de](http://www.global-warming.de). Comments on the PDD were invited within 30 days, i.e. February 16<sup>th</sup> to March 18<sup>th</sup> 2006.

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 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**

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The validation team is convinced that project is in line with all relevant host country criteria (Brazil) and all relevant UNFCCC requirements for CDM. Nevertheless the both LoA of Parties are pending.
- The Brazilian DNA will only issue the host country approval on the basis of this positive validation opinion by the validator of the project. Thus the LoA could not be considered at the present validation stage.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 95.273 t CO<sub>2e</sub> is most likely to be achieved within the first 7 y (renewable) crediting period.

<p>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.</p>		
<p>By submitting this validation report, the DOE confirms that all validation requirements are met.</p>		
<p>Name of authorized officer signing for the DOE</p>	<p>Rainer Winter</p>	
<p>Date and signature for the DOE</p>	<p>2006-12-01</p>	
<p><b>Section below to be filled by UNFCCC secretariat</b></p>		
<p>Date when the form is received at UNFCCC secretariat</p>		
<p>Date at which the registration fee has been received</p>		
<p>Date at which registration shall be deemed final</p>		
<p>Date of request for review, if applicable</p>		
<p>Date and number of registration</p>	<p>Date</p>	<p>Number</p>