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## 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)

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Section 1: Request for registration				
Name of the designated operational entity (DOE) submitting this form	Det Norske Veritas Certification Ltd. (DNV)			
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Osório Wind Power Plant Project			
Project participants (Name(s))	Ventos do Sul Energia (Brazil) Enerfin Enervento S.A. (Spain)			
Sector in which project activity falls	Energy Industry, renewable sources			
Is the proposed project activity a small-scale activity?		No.		
Section 2: Validation report				
List of documents to be attached to this validation report				

- ☑ 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 (Note: Included in DNV's Validation Report (DNV report 2006-0497, rev. 01));
- □ The written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party hat the project activity assist it in achieving sustainable development:
  - o (Attach a list of all Parties involved and attach the approval(in alphabetic order))
- ☑ Other documents, including any validation protocol used in the validation.
  - DNV's Validation Report (DNV report 2006-0497, rev. 01), including a validation protocol and a list of person interviewed by DNV 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 Border 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 is a grid-connected renewable energy project activity, displacing grid electricity that is partly generated based on fossil fuels with electricity generated from renewable sources (wind) and thus resulting in the reduction of emissions of greenhouse gases in the energy sector.

The objective of the "Osório Wind Power Plant Project" is to generate electricity on a large scale by means of the installation of 75 Enercon 2 MW wind turbines. (25 turbines at the Osório wind farm, 25 turbines at the Sangradouro wind farm and 25 turbines at the Indios wind farm, all sites at Osório municipality Rio Grande do Sul state). The turbines will have hub heights of 98 m and a total installed capacity of 150 MW.

The validation scope is an independent and objective review of the Project Design Document (PDD). The PDD was reviewed against Kyoto Protocol criteria for the CDM, the CDM modalities and procedures as agreed in the Marrakech Accords and relevant decision by the CDM Executive Board. The validation team has, based one the recommendation in the IETA/PCF Validation and Verification Manual, and employed a risk-based approach, focusing on the identification of significant risks for the project implementation and the generation of CERs.

The following documents were reviewed:

Osório Wind Power Plant Project PDD. Version 1 (February 2006);

Osório Wind Power Plant Project PDD. Version 2 (05 April 2006);

Spreadsheet of Calculation of Combined Margin (ONS database SSC 2002-2004 v. 2006-03-09)

Spreadsheet Osorio CER for the calculation of IRR and NPV 03.02.2006

International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): Validation and Verification Manual. http://www.vvmanual.info

Approved Consolidated Baseline and Monitoring Methodology ACM0002: "Consolidated baseline methodology for grid-connected electricity generation from renewable sources". Version 05 of 03 March 2006.

CDM Executive Board: Tool for the demonstration and assessment of additionality. Version 02 of 28 November 2005

Bosi, M., A. Laurence, P. Maldonado, R. Schaeffer, A. F. Simoes, H. Winkler and J.-M. Lukamba. Road testing baselines for greenhouse gas mitigation projects in the electric power sector. OECD and IEA information paper, October 2002.

The following persons were interviewed:

Alvaro Martin Garcia de Pablos – Enerfin

Virginia Gante - Econergy

The validation team consisted of the following personnel:

Mr. Luis Filipe Tavares
Ms. Cintia Dias
Mr. Vicente San Valero
DNV Rio de Janeiro
DNV Rio de Janeiro
DNV Rio de Janeiro
CDM auditor
CDM auditor

Mr. Einar Telnes DNV Oslo Energy sector expert/Technical reviewer

For further details, please refer to the "Introduction" and "References" Sections of DNV's Validation Report (DNV Report 2006-0497, rev. 01).

## 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 started in March 2006. The Validation consisted of the following three phases:

- i) a desk review of the project design documents;
- ii) follow-up interview with project stakeholders;
- iii) the resolution of outstanding issues and the issuance of the preliminary validation report and opinion.

The original and revised versions of the project design document (PDD) submitted by the project participants were reviewed. Additional background documents related to the project design and the baseline were also consulted.

On 04 April 2006, DNV performed interviews with a representative of Enerfin and Econergy, 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 ad 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. The Corrective Action Requests and requests for Clarification raised by the validation team were resolved through communications with the project participants. To guarantee the transparency of the validation process, the concerns raised by DNV and the response provided by the project participants are documented in Table 3 of the Validation Protocol in Appendix A of DNV's Validation Report. (DNV report 2006-0497, rev. 01).

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report 2006-0497, rev. 01) and the IETA/PCF Validation ad Verification Manual (<u>www.vvmanual.info</u>)

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 Certification published the initial PDD of 16 February 2006 on the DNV Climate Change web site (<a href="http://www.dnv.com/certification/ClimateChange">http://www.dnv.com/certification/ClimateChange</a>) and stakeholders were, through the UNFCCC CDM web site, invited to provide comments within a 30 days period from 11 March 2006 to 09 April 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 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

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Osório Wind Power Plant Project", at Osório Municipality, Rio Grande do Sul State, Brazil. The validation was performed on the basis of UNFCCC criteria for CDM project activities and relevant Brazilian criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project participants are Ventos do Sul Energia of Brazil and Enerfin Enervento S.A. of Spain. The host Party Brazil and the Annex I Party Spain meet all relevant participation requirements.

The project is a renewable electricity generation project activity involving a reduction of emissions of greenhouse gases in the grid. The project consists in installation of 75 Enercon 2 MW wind turbines with hub heights of 98 m, with a total installed capacity of 150 MW.

By promoting renewable energy, the project is in line with the current sustainable development priorities of Brazil.

The project applies the approved baseline and monitoring methodology ACM0002, i.e. "Consolidated baseline methodology for grid-connected electricity generation from renewable sources". The baseline methodology has been correctly applied and the assumptions made for the selected baseline scenario are sound. . It is sufficiently demonstrated that the project is not a likely baseline scenario and that emission reductions attributable to the project are additional to any that would occur in the absence of the project activity.

A combined margin emission coefficient of 0.2636 tCO<sub>2</sub>e/MWh is calculated in accordance with ACM0002, i.e. the average of the approximate operating margin and the build margin. The determination of this combined margin emission coefficient is based on actual electricity generation data provided by the National Electricity System Operator (ONS) for the years 2002- 2004 for the South-Southeast-Midwest grid.

The monitoring methodology has been correctly applied. The monitoring plan sufficiently specifies the monitoring requirements of the main project indicators.

By displacing fossil fuel-based electricity with electricity generated from the wind, the project results in reductions of CO<sub>2</sub> 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.

Local stakeholders, such as the Municipal Government, the state and municipal agencies, the Brazilian forum of NGOs, neighboring communities and the office of the attorney general, were invited to comment on the project, in accordance with the requirements of Resolution 1 of the Brazilian DNA and as verified by copies sent to DNV. One comment was received and adequately addressed by project participants.

In summary, it is DNV's opinion that the "Osório Wind Power Plant Project" as described in the revised project design document of 05 April 2006, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology for ACM0002 CDM project activities.

Hence, DNV will request the registration of the "Osório Wind Power Plant Project" as CDM project activity.

For further details, please refer to the "Validation Protocol in Appendix A of DNV's Validation Rep				
The DOE declares herewith that in under activity it has no financial interest related undertaking such a validation does not c with the role of a DOE under the CDM.	to the proposed	CDM project a	ctivity and that	
met.	Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of the DNA of Brazil and the Spain, including confirmation by the DNA of Brazil that the project assists in achieving sustainable development.			
Name of authorized officer signing for the DOE	Michael Lehmann			
Date and signature for the DOE	11 April 2006 Michael Chma			
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	