



### 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	Spanish Association for Standardization and Certification (AENOR)
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Bii Nee Stipa
Project participants (Name(s))	GAMESA ENERGIA, S.A
Sector in which project activity falls	Sectoral Scope 1: energy industries (renewable source)
Is the proposed project activity a small-scale activity?	Yes / <u>No</u> (underline as applicable)

#### Section 2: Validation report

List of documents to be attached to this validation report (please check mark):	
<ul style="list-style-type: none"> <li>✓ The CDM-PDD of the project activity</li> <li>✓ 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 validation report, ref. No. 2005/0014/CDM/01 rev 02)</li> <li>✓ 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>○ (Attach a list of all Parties involved and attach the approval (in alphabetical order))</li> </ul> </li> <li>✓ Other documents, including any validation protocol used in the validation <ul style="list-style-type: none"> <li>○ Validation report ref. No. 2005/0001/CDM/01 rev 01, including List of persons interviewed by DOE validation team during the validation process.</li> <li>○ Validation Protocol ref No. 2005/0001/CDM/01 rev 01.</li> </ul> </li> <li>✓ 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. (Note: After receiving the individual reference number we will be able to proceed with the payment of the non-reimbursable fee)</li> <li>✓ 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)

The Spanish Association for Standardisation and Certification (AENOR) entered into an agreement with GAMESA ENERGIA to initiate validation of the "Bii Nee Stipa" wind farm Project in Mexico. The project consists in a 200 MW wind power project, expected to produce 730 GWh per year, with a capacity factor of 42%. The minimum expected operational lifetime is 20 years.

- Total Power 200 MW
- Turbine G61-G52
- Rated Power per turbine 1320 kW-850 kW
- Rated output Voltage 690V
- No. of turbines 150-234
- Equivalent annual operating hours 3650
- Annual Production 730 GWh
- Capacity factor 42%
- Transmission line length 6 km
- Transmission line Voltage 115 kV
- Wind Farm output transformer 20kV/115kV

The purpose of this project activity is to generate renewable energy coming from wind resources, in order to sell it to Mexican partners willing to consume this sort of energy. With this aim, the project activity will reduce greenhouse gas (GHG) emission by avoiding electricity generation otherwise produced at fossil-fuel fired power plants, and thus CO<sub>2</sub> emissions associated to it. Total power to be installed will be 200 MW in different phases.

The wind resources available at the location of the project activity are optimal for the implementation of this kind of renewable project, due to the excellent wind resources existing (both speed and quality) in this area, as well as the possibilities of energy evacuation through existing High Voltage lines. Wind data is available at *Instituto de Investigaciones Eléctricas* (IIIE), CFE and yet confirmed by two 40m high measurement towers installed in December 2001 at the future Wind Farm location. A third 65m tower has been recently installed in order to evaluate with more accuracy the wind resources in the whole area. At present stage, the wind farm is under final stage of development. Both construction and operation of the wind farm will be performed by GAMESA using in house technology and procedures. Gamesa Energía signed a strategic alliance with CISA (Cableados Industriales SA) to co-develop wind farms in Mexico since February 2001. CISA is a 100% Mexican company specialized in the design, construction, operation and maintenance of electrical systems.

In addition to the reduction in GHG emission reductions that the project activity would carry in case of being registered, other environmental and social benefits have been detected:

- Use of autochthonous energy resources (wind energy) which will improve local grid performance, this is, decreasing the occurrences of voltage drops and local blackouts
- Job creation, specially during the construction period of the wind farm, but also for the maintenance and operation works through out the life time of the wind farm
- Additional income to landowners derived from land leasing without impacting in the incomes they perceive because of their regular activities
- Foreign capital attraction, which would yield in higher incomes related to taxes
- Decrease of fossil-fuel sources dependence
- Local environmental studies performed

The spatial extent of the boundary includes the site where the power plant will be erected and all power plants physically connected to the Mexican National Grid, where the project activity will also be connected. It will be considered only power plants with no energy transportation constraints related to transmission lines. Electricity imports and exports from the Mexican National grid will be also taken into account.

The project is estimated to produce a net reduction in CO<sub>2</sub> emissions of 309,978.6 tCO<sub>2</sub> per annum based on an estimated production of 730 GWh per annum.

The scope of the validation is to assess all aspects of GHG reduction involved in the project, including the project design, the baseline, the determination of the Emission factor of the grid and the procedures proposed for monitoring the emission reductions in the future.

The following documents were reviewed as part of the scope of the activity:

- PDD, including baseline study and monitoring plan.
- Approved Methodology (ACM0002)
- Decision 17/CP.7 and relevant decisions from the EB
- Environmental Impact Assessment of the project and its extensions until 200 Mw.
- The regulatory framework related with environmental legal requirements and the electrical sector.
- Approval, authorizations and contracts necessary to carry out the activity according to the regulatory framework.
- Energy sector reports from SENER (Ministry of Energy in Mexico)
- Contracts with land owners.

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. AENOR, based on the Specific Code for the Processing and Conducting of Validation, Registration, Verification and Certification of Kyoto Protocol CDM Project Activities (IE/DCS/66.00), has used 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 consultancy services to the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the PDD.

CISA (Partner of GAMESA ENERGIA in Mexico) has undertaken two EIAs corresponding to each expansion of the plant power, according to official requirements of the General Law of Ecological Balance and Environmental Protection and his Regulation for Environmental Impact assessment. In agreement with this regulation, it is not necessary to carry out a public consulting process; nevertheless, CISA has developed several initiatives to know the opinion and comments of local stakeholders about the project. These initiatives are described in section G of the PDD and include periodical meetings with landowners and local authorities, who were interviewed by the validating team during the on site visit to the future plant location in El Espinal, near Juchitan de Zaragoza, State of Oaxaca, Mexico.

The following persons were interviewed:

Interviewed organisation Person/Position	Interview topics
SEMARNAT - Lic. Lucrecia Martín Chavez: Subdirector for Climate Change Projects	<ul style="list-style-type: none"> <li>➤ Mexican DNA and project's sustainable development contribution</li> <li>➤ EIA Approval</li> </ul>
CRE - Dr. Alejandro Peraza García: General Director - Ing. Francisco Granados Rojas: Electrical Permits Director	<ul style="list-style-type: none"> <li>➤ Requirements for wind farms arising from electrical regulatory framework in Mexico:               <ul style="list-style-type: none"> <li>- Public Electric Services Act</li> <li>- Public Electric Services Ruling Act</li> <li>- Public Electric Services Ruling Act on Contributions.</li> <li>- Energy Regulation Commission Act</li> </ul> </li> <li>➤ Characteristics of the Mexico electricity market: prices, tariff, growth, taxes,...</li> </ul>

CFE - Ing. Juan Jacobo Miranda T.: Deputy Manager for Projects Evaluation	<ul style="list-style-type: none"> <li>➤ Interconnection contract</li> <li>➤ CFE review and decision about the project feasibility</li> <li>➤ Electrical sector data in Mexico</li> <li>➤ Generation data of Plants that supply electricity to the grid</li> <li>➤ Foreseen growth of electrical generation in Mexico</li> </ul>
SENER - Eduardo Espinosa Bustamante : Energy Policy Integration Subdirector - Dr. Jorge Wolpert Kuri : Rural Electrification Capacity Development Project by using Renewable Energies - Ubaldo Inclán: Renewable Energies - Julio A. Valle Pereña: Investment and promotion General Direction	<ul style="list-style-type: none"> <li>➤ National Energy Balance: Electrical generation in Julies unit.</li> <li>➤ Electrical Sector Forecast: Data of the electrical system in Mexico</li> <li>➤ Common practice barriers in Mexico</li> </ul>
LAND OWNERS - Porfirio Montero Fuentes: President of FEPRO and UERI - Prof. Tito Castillejo Ordoñez: Deputy President of UERI - Ing Emilio Velázquez García: Projects study - Prof. Virgilio Fuentes Toledo: Land property documents regularisation - Ing. Tamos Pineda: Land owner	<ul style="list-style-type: none"> <li>➤ Stakeholders Public Information Process</li> <li>➤ Land owners opinion about wind farm projects</li> <li>➤ Land owners contracts</li> <li>➤ Problems with ancient documents of title</li> <li>➤ Land owners current socioeconomic situation</li> </ul>
MUNICIPAL AUTHORITIES - Prof. Dña. Marcela Escobar: Councilwoman - Ing. Edgardo Martínez Villalba: Planning Director - Carlos Escobar Pulido: Municipal Secretary	<ul style="list-style-type: none"> <li>➤ Opinion about the project</li> <li>➤ Citizen information about the project</li> <li>➤ Knowledge of the EIA</li> <li>➤ Project expectations</li> </ul>
CISA - Ing. Javier Padilla: Regional Manager - Lic. José Leon Velasco: projects coordinator	<ul style="list-style-type: none"> <li>➤ Plant design details</li> <li>➤ Changes in the project design</li> <li>➤ EIA</li> <li>➤ Baseline development</li> <li>➤ Monitoring plan</li> <li>➤ Environmental legal requirements</li> <li>➤ Compliance with law applicable to electrical generation</li> <li>➤ On site visit to new plant location</li> <li>➤ Regulation issues of Mexican national grid</li> </ul>
GAMESA - Eduardo García Molina: Business Development in Latin America - Javier López Huerta: Energy Management	<ul style="list-style-type: none"> <li>➤ PDD development and Additionality justification</li> </ul>

The validation team consist of the following personnel:

- Mr. Antonio Carretero Peña                      AENOR Madrid                      Team leader, CDM Chief validator.  
Her duties during the validation process were as follows:
  - Organise and supervise validation.
  - Evaluate the PDD against the CDM SSC-PDD, the reference document will be the SSC M&P.
  - Analyse, in conjunction with the members of the validation team, the comments received during the public inquiry period and draw the respective conclusion.
  - Establish action guidelines for the members of the validation team.

- Analyse the evidence found.
- Evaluate and decide on conflicting evidence.
- Follow up interviews with the projects participants and in the host country.
- Mr. Javier Vallejo Drehs                      AENOR Madrid                      CDM Chief validator in practice.  
Her duties during the validation process were as follows:
  - Analyse, in conjunction with the members of the validation team, the comments received during the public inquiry period and draw the respective conclusions.
  - He act as the team leader following all her instructions to achieve the require qualification
  - Forward the CDM-project-activity validation contract to the party concerned.
  - Make the CDMD publicly available, pursuant to the provisions of the SSC M&P, paragraph 23b) & c).
  - Make any comments received during the public inquiry period publicly available.
  - Inform the applicant of the result of the validation.
  - Complete and forward form R/DCS/273, verification plan, to the party concerned.
  - Participate in the validating team, furnishing the chief validator with specialised knowledge in CDM regulatory framework and in linguistic skills.
  - Fill in the application for registration F-CDM-REG.
  - Elaboration of the validation protocol and the validation report.
  - Follow up interviews with the projects participants and in the host country.
- Mr. Miguel Carrasco García                      AENOR Madrid                      Renewable electricity generation expert.  
Her duties during the validation process were as follows:
  - Participate in the validating team, furnishing the chief validator with specialised knowledge in technical aspects related with hydroelectric generation.
  - Evaluate the PDD.

#### 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 started in February 2005 and concluded in September 2005.

The validation consisted of the following three phases:

- A desk review of the PDD (February 2005 to May 2005)
- Follow-up interviews with project stakeholders, project participants and Mexican authorities. (June 2005)
- The resolution of outstanding issues and the issuance of the final validation report and opinion (September 2005)

The validation was performed in the manner of an audit, where a desk review of the PDD was first undertaken against the Approved Methodology and CDM and other relevant criteria. The desk review was followed by a site visit to CISA in Mexico. Some information was also obtained from selected experts in the field.

In order to ensure transparency, a validation protocol was customised for the project, according to AENOR's Specific Code IE/DCS/66.00. 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, provides 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.

Findings establish during the 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 Request (CAR). The term Clarification (CL) may be used where additional information is needed to fully clarify an issue.

The eleven Corrective Action Requests and six Clarification Requests raised by AENOR were resolved during communications between GAMESA and project participants with AENOR. Additional information provided by the project participants resolved these requests to AENOR's full satisfaction. To guarantee the transparency of the validation process, the concerns raised and responses given are summarised and documented in more detail in Table 3 of the validation protocol Ref. 2005/0001/CDM/01 Report No.2.

To address the corrective actions and clarification requests that arose from AENOR desk review and on-site visit, GAMESA revised the project design documents submitted in February 2005 and developed a new version in August 2005. This version did not contain all corrective actions; therefore, the validation team asked GAMESA to develop a new one. A final version of the PDD was developed in September 2005, addressing all corrective actions and AENOR's requests.

For further details, please refer to the "Methodology" section of AENOR validation Report (Ref: 2005/0001/CDM/01 No.1) and the IETA/PCF Validation and verification manual ([www.vvmanual.info](http://www.vvmanual.info)).

**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)

AENOR published the project documents on CDM website (<http://unfccc.cdm.int>) on 2005-06-16 and invited comments within 2005-07-17 by Parties, stakeholders and non-governmental organisations. 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

AENOR has performed a validation of the Bii Nee Stipa project in Mexico. 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, the on-site visit and the subsequent follow-up interviews have provided AENOR with sufficient evidence to determine the fulfilment of stated criteria, including the approval letter of the Mexican and Spanish DNAs. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. Moreover, AENOR has already received the written approval of voluntary participation from the DNA of each party involved and the host Party confirmation that the project activity assists in achieving sustainable development. The project will hence be recommended by AENOR for registration with the UNFCCC.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, 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. An analysis of the investment, technological barriers and common practice in Mexico 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 will be implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

For further details, please refer to the "Validation findings" section of AENOR validation Report (Ref: 2005/0001/CDM/01 No.1) and to the table 1 of AENOR validation protocol (Ref: 2005/0001/CDM/01 No.2).

AENOR 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.

JOSE LUIS TEJERA OLIVERA  
CDM Operational Director

Name of authorized officer signing for the DOE

Date and signature for the DOE

2005-10-10

**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