

 <p><b>CDM Project Activity Registration and Validation Report Form</b> (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)</p>	
<b>Section 1: Request for registration</b>	
<b>Name of the designated operational entity (DOE) submitting this form</b>	Det Norske Veritas Certification Ltd. (DNV)
<b>Title of the proposed CDM project activity (Section A.1 of the attached CDM-PDD) submitted for registration</b>	20 MW Nasulo Geothermal Project
<b>Project participants (Name(s))</b>	<input checked="" type="checkbox"/> PNOC Energy Development Corporation, <input checked="" type="checkbox"/> International Bank for Reconstruction and Development as the Trustee of the Netherlands Clean Development Mechanism Facility <input checked="" type="checkbox"/> The Netherlands
<b>Sector in which project activity falls</b>	Sectoral Scope Nr. : 01 - Energy industries (renewable - / non-renewable sources)
<b>Is the proposed project activity a small-scale activity?</b>	Yes / <u>No</u> (underline as applicable)
<b>Section 2: Validation report</b>	
<b>List of documents to be attached to this validation report (please check mark):</b>	
<input checked="" type="checkbox"/> The CDM-PDD of the project activity <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; <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>○ (Attach a list of all Parties involved and attach the approval (in alphabetical order))</li> </ul> <input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation <ul style="list-style-type: none"> <li>○ Validation Report including a validation protocol and a list of persons interviewed by the validation team during the validation process</li> </ul> <input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available. <input checked="" type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee <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.	
<b>Executive Summary and Introduction, including</b>	
<ul style="list-style-type: none"> <li>• <b>Description of the proposed CDM project activity</b></li> </ul>	

- **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:**

The project is a 20 MW geothermal power plant that is to be located in the municipality of Valencia, Province of Negros Oriental, Republic of the Philippines. The project will be located in the Nasuji Area, which lies on the northern flanks of the inactive Cuernos de Negros volcano (1837m ASL). This volcano is located about 12 km west of Dumaguete City.

The electricity generated by the project is expected to displace grid electricity generated from fossil fuels and reduce GHG emissions by an amount of approximately 74 975 tCO<sub>2</sub>e (tonnes of carbon dioxide equivalent) per year for the duration of the first 7-year crediting period.

The project is to be developed by the Philippine National Oil Company-Energy Development Corporation (PNOC-EDC) and the project lifetime is expected to be 20 years.

**Scope of validation process:**

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0002, version 6 of 19 May 2006. The validation team has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs.

**The following documents were reviewed:**

- World Bank Carbon Finance Unit: CDM PDD for the “20 MW Nasulo Geothermal Project”, versions 1 of 30 August 2005, version 2 of 28 February 2006, and final version of 15 July 2006.
- Letter of Approval from DNA of Philippines of 30 June 2006.
- Letter of Approval from DNA of The Netherlands of 30 November 2005 and Letter of Authorization of 30 November 2005.
- Scope of Work for the EPC contractor (Operation and Maintenance contract) Transmission Service Agreement with TRANSCO Fluid Collection and ReInjection System (FCRS) flowchart
- Executive Summary of EIA (overall EIA report for the Southern Negros Geothermal Production Field, SNGP) Letter of exception on EIA (covered under the overall EIA for SNGP) and ECC dated 29 September 1993 (for existing geothermal plant) and letter of confirmation of exception of 19 May 2006. Project endorsement from relevant LGUs
- International Emission Trading Association (IETA) & the World Bank’s Prototype Carbon Fund (PCF): *Validation and Verification Manual*. <http://www.vvmanual.info>
- CDM-EB: Approved Consolidated Baseline and Monitoring Methodology ACM0002 - “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”. Version 06 of 19 May 2006.

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

<http://www.eia.doe.gov/emeu/cabs/philippi.html>

**The following persons were interviewed:**

- Ms. Irma C. Exconde (Assistant Director, Electricity Power Industry Management Bureau)
- Mr. Raul Q. Domingues (Senior Science Research Specialist, Electricity Power Industry Management Bureau)
- Ms. Joy Goco (Philippines DNA Secretariat)
- Ms. Agnes C. De Jesus (Vice President, Environment & External Affairs, PNOC-EDC)
- Mr. Samuel D Hernando (Superintendent Renewable and Conventional Power Group, PNOC- EDC)
- Ms. Nelda A Habacon (Supervisor, Project Development, PNOC- EDC)

**The validation team consists of the following personnel:**

Ms Mari Grooss Viddal	DNV Oslo, Norway	Team Leader, GHG auditor
Ms Giulia Galluccio	DNV Milan, Italy	GHG auditor
Mr. Lai Chee Keong	DNV Kuala Lumpur, Malaysia	GHG auditor
Mr. Miguel Rescalvo	DNV Oslo, Norway	GHG auditor
Mr Michael Lehmann	DNV Oslo, Norway	Technical reviewer, Energy sector specialist.

For further details, please refer to the "Introduction" and "References" Section of DNV's Validation Report (DNV Report 2005-1538, rev. 02).

**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 consisted of the following three phases:

- i) A desk review of the project design documentation.
- ii) Follow-up interview with project stakeholders.
- iii) The resolution of outstanding issues and the issuance of the validation report and opinion.

The PDD version 3 of 15 July 2006 and its previous versions (versions 1 of 30 August 2005 and version 2 of 28 February 2006) submitted by the World Bank Carbon Finance Unit and additional background documents related to the project design and baseline were assessed.

In the period of 23-24 November 2005, DNV performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives

of PNOC-EDC, the Department of Energy (DOE) and the Philippine DNA were interviewed.

In order to ensure transparency, a validation protocol has been customized 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 validation of 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 DNV were resolved through communication 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 the DNV's Validation Report.

*For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report 2005-1538, rev. 02) 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)***

The PDD (versions 1 of 30 August 2005) was made publicly available on DNV's climate change website ([www.dnv.com/certification/climatechange](http://www.dnv.com/certification/climatechange)) and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 8 October to 6 November 2005. No comments were received.

Please refer to the "Comments by Parties, Stakeholders and NGOs" Section of DNV's Validation Report (DNV Report 2005-1538, rev. 02) and the above mentioned CDM website.

***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***

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "20MW Nasulo Geothermal Project" in the Republic of Philippines. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism 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 DNV with sufficient evidence to determine the fulfillment of stated criteria.

The host Party is the Republic of Philippines and the Annex I Party is The Netherlands. The Republic of Philippines and The Netherlands fulfill the participation criteria of the CDM. By promoting renewable energy, the project is likely to contribute to sustainable development in the Republic of

Philippines. Approval from the DNA of the Republic of Philippines and The Netherlands has been obtained. Project's participants are duly authorized.

The project correctly applies the approved baseline and monitoring methodologies, "ACM0002 - Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 06 of 19 May 2006.

By supplying renewable electricity to the Luzon-Visayas grid, the project activity will displace mainly fossil fuel-based electricity generation, thereby reducing emissions. The metering of electricity generated and measurement of project emissions will give opportunity for real measurements of achieved emission reductions.

The additionality of the project is demonstrated through the existence of investment and prevailing practice barriers. 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.

In summary, it is DNV's opinion that the "20MW Nasulo Geothermal Project" in the Republic of Philippines, as described in the project design document, version 3 of 15 July 2006, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology ACM0002, version 06 of 19 May 2006. DNV thus requests the registration of the project as a CDM project.

For further details, please refer to DNV's Validation Report (DNV Report 2005-1538, rev. 02).

*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.	Susanne Haefeli-Hestvik
Name of authorized officer signing for the DOE	
Date and signature for the DOE	07 Sep. 2006 <i>S. Haefeli-Hestvik</i>

#### 1.1.1.1 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