

 <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>	Shalivahana Non-Conventional Renewable Sources Biomass Power Project
<b>Project participants (Name(s))</b>	Shalivana Projects Limited
<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>	<u>Yes</u> / <del>No</del> (underline as applicable)
<b>Section 2: Validation report</b>	
<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;</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 Validation Report including a validation protocol and a list of persons interviewed by the validation team during the validation process</li> </ul> </li> <li><input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available.</li> <li><input checked="" 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>	
<b>Executive Summary and Introduction, including</b>	
<ul style="list-style-type: none"> <li>• <b>Description of the proposed CDM project activity</b></li> <li>• <b>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)</b></li> <li>• <b>DOE Validation team (list of all persons involved in the validation, describing functions assumed in the validation)</b></li> </ul>	

**Description of the proposed CDM project activity:**

The project is a 6 MW (gross) capacity grid-connected biomass based power project. The project was commissioned in December 2002. The project utilises the available biomass in the region, such as rice husk, cotton stalks, paddy straw, prosopis juliflora etc, for generation of electricity that is exported to the Andhra Pradesh state electricity grid, which forms a part of the Southern regional grid. It uses a condensing type steam turbo generator with a matching boiler of travelling grate technology capable of firing multiple fuels. The technology used in the project is indigenous.

The objective of the project is to reduce anthropogenic GHG emissions by displacing fossil fuel based electricity generation with renewable biomass. The project thereby helps in reducing the power deficit in the state of Andhra Pradesh and also contributes towards conservation of natural resource like coal.

Based on a baseline emission factor determined to be to be 0.834 kgCO<sub>2</sub> per kWh (for the southern regional grid), the project is expected to result in emission reductions of 23 121 tonnes of CO<sub>2</sub> per year during the ten year crediting period.

**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, the simplified modalities and procedures for small-scale CDM project activities and the relevant decisions by the CDM Executive Board. 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:**

- Shalivahana Projects Limited: CDM PDD for "Shalivahana Non-conventional Renewable Sources Biomass power Project" Version 1 of 20 October 2005 and version 2 of 5 May 2006.
- Shalivahana Projects Limited – Calculation for grid emission factor
- Ministry of Environment and Forest (DNA of India): Letter of Approval dated 17 January 2006.
- International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): *Validation and Verification Manual*. <http://www.vvmanual.info>
- Appendix B of the simplified modalities and procedures for small-scale CDM project activities: *Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories*. Version 08: 03 March 2006.
- Revised 1996 IPCC guidelines for national green house gas inventories – Reference manual (volume 3)

**The following persons were interviewed:**

- Mr. M. Komaraiah, Director, Shalivahana Projects Limited
- Mr. Rajababu, Director-Operations, Shalivahana Projects Limited
- Mr. Krishna, Plant Manager, Shalivahana Projects Limited

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

Chandrashekara Kumaraswamy	DNV, India	Team Leader
Astakala Vidyacharan	DNV, India	GHG Auditor
K.Venkata. Raman	DNV, India	Technical Reviewer

For further details, please refer to the "Introduction" and "References" Section of DNV's Validation Report (DNV Report 2006-9056, rev. 03).

**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:

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

The PDD submitted by the Shalivahana Projects Limited (version 1 dated 20 October 2005 and version 2 dated 5<sup>th</sup> May 2006) and additional background documents related to the project design and baseline, such as the baseline calculation data, local stakeholder's comments and the monitoring plan were assessed during the validation.

On 17 and 18 February 2006, DNV performed interviews with representatives of Shalivahana Projects Limited and local stakeholders to confirm selected information 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 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 2006-9056, rev. 03) 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 version of 20.10.2005 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 30 December 2005 to 28 January 2006. One comment was received by Perumal, Carbon watch on 15/02/2006.

Please refer to the "Comments by Parties, Stakeholders and NGOs" Section of DNV's Validation Report (DNV Report 2006-9056, rev. 03) 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 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 "Shalivahana Non-conventional Renewable Sources Biomass power Project in India" in Mancherial village and mandal, Adilabad district, Andhra Pradesh in India, 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. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

The project participant is Shalivahana Projects Limited. The host Party India meets all participation requirements and the DNA of India approved the project.

The validation has confirmed that the project is eligible as category I.D, Version 08, 03 March 2006 small-scale CDM project activity and correctly applies the simplified baseline and monitoring methodology AMS-I.D Version 08, 03 March 2006. The determination of the baseline is well elaborated, transparent and sufficiently supported with facts. The selected baseline scenario is reasonable for the selected 10 year crediting period. Moreover, an analysis of the barriers facing the project demonstrates that project is not a likely baseline scenario.

The project will contribute to sustainable development by generating renewable energy, providing benefits such as employment generation during construction and operation of the project, ensuring environmental well being and aid in bridging the gap between demand and supply of power. The DNA of India has confirmed that the project assists in achieving sustainable development and has accorded the approval for the project on 17 January 2006.

The validation did not reveal any information indicating that the project can be seen as a diversion of ODA funding towards India.

The project results in the reduction of GHG emissions those are real, measurable and give long-term benefits and that are additional to what would have occurred in the absence of the project.

The monitoring plan makes sufficient provision for monitoring relevant project and baseline emission indicators. Responsibilities and authorities for project management, monitoring and reporting and QA/QC procedures have also been addressed.

A local stakeholder consultation process has been carried out by the project participant. DNV

published the PDD on the DNV climate Change web site and comments by Parties, stakeholders and UNFCCC accredited NGOs were invited through the CDM web site. One comment was received and DNV has taken due account of this comment in its validation of the project.

In summary, it is DNV's opinion that the project, as described in the project design document of 5 May 2006, meets all relevant UNFCCC requirements for the CDM, is eligible as category I.D, Version 08, 03 March 2006 small-scale CDM project activity and correctly applies the approved simplified baseline and monitoring methodology AMS-I.D, Version 08, 03 March 2006. Hence, DNV requests the registration of the "Shalivahana Non-conventional Renewable Sources Biomass power Project in India" as a CDM project activity.

For further details, please refer to DNV's Validation Report (DNV Report 2006-9056, rev. 03).

*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.	Michael Lehmann
Name of authorized officer signing for the DOE	
Date and signature for the DOE	02 February 2007 <i>Michael Lehmann</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