



**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	BVQI HOLDING S. A.
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	12 MW hydropower plant in Bhandardara in Maharashtra, India
Project participants (Name(s))	Dodson – Lindblom Hydro Power Private Limited (DLHPPL) IFC-Netherlands Carbon Facility (INCaF) The State of Netherlands
Sector in which project activity falls	Sector 1 : Energy industries (renewable / non-renewable sources)
Is the proposed project activity a small-scale activity?	<u>Yes</u> / No (underline as applicable)

Section 2: Validation report

List of documents to be attached to this validation report (please check mark):	
<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"> <input checked="" type="checkbox"/> Written approval from the DNA of India as host country is attached <input checked="" type="checkbox"/> Written approval from DNA of Netherlands is attached <input type="checkbox"/> Other documents, including any validation protocol used in the validation <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Validation report including the validation protocol, list of persons interviewed, etc. <input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available. <input 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	

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**

The project activity (BH-1) is constructed at the foot of a hill adjacent to the Bhandardara dam. BH-1 was originally built by the Government of Maharashtra Irrigation Department [GOMID] with a single hydropower generating unit of 10 MW in 1984. In Maharashtra state, all state owned hydroelectric plants are constructed by Government of Maharashtra Water Resources Department [GOWRD] and handed over to Maharashtra State Electricity Board [MSEB] for operation and maintenance. The generating unit at BH-1 was commissioned in 1986 and entered commercial operation in 1987. After operating for eight years, a mishap occurred which severely damaged the entire plant and the plant ceased to operate. The rehabilitation and operation of this plant was awarded on a lease, own, operate and transfer basis to Dodson – Lindblom International Inc (DLI), an Ohio, USA, based company. DLI is part of DLZ Corporation in the midwestern United States. An operating company by the name of Dodson – Lindblom Hydro Power Private Limited (DLHPPL) was formed to implement and operate the hydropower plants in India. The financial closure of the project was completed in March 2000. DLHPPL started the construction of BH-1 in April 2000 and commissioned the project activity in July 2001. According to the PDD, the work virtually involved construction of new power plant. PDD states that the accident had caused such damage that entire plant had to be reconstructed. The generated power from the project activity is connected to state electricity grid owned and operated by Maharashtra State Transmission Company Ltd [MSTCL].

The project participant is Dodson –Lindblom Hydro Power Private Limited (DLHPPL)

The project start date is 27/07/2001 and has opted for a renewable crediting period for 7 years starting from 27/07/2001

The total emission reductions over the 7 years renewable crediting period are estimated to be about 208,617 tCO₂e.

- **Scope of validation process**

The scope of the validation is to assess the aspects of GHG reduction involved in the project. The validation scope is defined as an independent and objective review of the project design document, the project baseline study and monitoring plan and other relevant documents related to the project activity as described above and implemented at, India. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. BVQI has, based on the recommendations in the Validation and Verification Manual (IETA/PCF, version 3.3, March 2004), employed a risk-based approach in the validation, focusing on the identification of significant risks for the project implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

- **Documents reviewed**

A number of documents and records were reviewed during the validation process. The key documents are listed below :

- CDM Project Design Document [PDD] submitted on April 2006 to BVQI, final version no. 3 dated 04/08/2006
- Letter of approval dated 29/03/2006 from Designated National Authority of host country, India
- Communication letters dated April 2000 between DLHPPL and Irrigation authorities indicating that the project construction started in April 2000.
- Internal communication memos dated 17/11/1999 and 19/11/1999 indicating consideration of carbon market benefits
- Letter from IREDA for sanctioning the loan (Ref. No. 221/1467/98/M&M/IREDA dated 18/06/99 – Interest mentioned is 16%
- Original copy of Public notice for inviting comments from Public.

- **Persons interviewed**

Company

Mr. Prem Paunikar	- Director, DLHPPL
Mr. Shahikant Desai	- Dy. General Manager, Operations, DLHPPL
Mr. R. V. Jadhav	- Plant Manager, DLHPPL
Mr. B. T. Gurav	- Shift Engineer, DLHPPL
Mr. A. R. Patel	- Shift Engineer, DLHPPL
Mr. S. K. Ghodekar	- Shift Engineer, DLHPPL
Mr. R. G. Vijapurkar	- Shift Engineer, DLHPPL

Consultant

Mr. Ilango Bharathi	- Bunge India Limited, Consultant
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- **DOE Validation team**

Sandeep Lele	- Team leader, performed the document review and site visit
H. B. Muralidhar	- Team member, supported the team leader in document review, site visit and provided the necessary expertise in electricity generation
Sameer Pendse	- Observer [Trainee validator]
Ashok Mammen	- Performed the technical review of the validation report

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 overall validation, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (BVQI Management System [BMS], September 2003) which were audited by the CDM Accreditation Team in December 2004.

In order to ensure transparency, a validation protocol was customised for the project, according to the Validation and Verification Manual (IETA/PCF, v. 3.3, 2004). 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, 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.

The validation of the project consists of the following 3 phases :

- i) A desk review of the project design document and the baseline and monitoring plan [November 2005]
- ii) Follow-up interviews with the project stakeholders [November 2005]
- iii) The resolution of outstanding issues and the issuance of the final validation report and opinion [December 2005 – August 2006]

The validation involved a combination of desk review and site visit to the project site. The desk review consisted of an assessment of PDD against the CDM and other relevant criteria. This was followed by a site visit on dates 10/11/2005 and 11/11/2005. The corrective and clarification requests were submitted to the client after the completion of site visit. The validation opinion and the final report were made subsequently.

The overall approach was risk based assessment.

- **Review of CDM-PDD and additional documentation attached to it**

The PDD submitted by the client was reviewed against the CDM and other relevant criteria and approved methodology [initial version of 2005 and the final version of August 2006]. All other documents submitted to BVQI for detailed calculations of baseline determination were also reviewed [November 2005 – August 2006].

- **Assessment against CDM requirements**

A validation protocol as per the procedures established by BVQI was used. This protocol was customised with additional checkpoints to address the requirements of the applicable approved methodology. [November 2005]

The protocol provides for a transparent mechanism and information on how the CDM and other relevant criteria and methodology requirements were assessed by the validation team.

During the period from 10/11/2005 and 11/11/2005, BVQI performed site visit and interviewed the project proponents to confirm the information and resolve issues identified in the document review.

- **Report of findings by the DOE**

The desk review and site visit of the validation activity may result in corrective action requests [CAR] or clarification requests [CL].

A corrective action request is issued where the project information does not conform to the CDM and other relevant criteria. A clarification request is made where the project information is not sufficiently described and/or clarified.

These are reported to the client through a draft validation report.

The draft validation report including CARs and CLs were issued to DLHPPL after the site visit [November 2005].

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

<ul style="list-style-type: none"> • Compilation of all comments received (Identify the submitter) • Description of how and when the PDD was made publicly available According to the modalities for the validation of CDM projects, the validator shall make publicly available the project design document; receive, within 30 days, comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. BVQI published the project design document on the UNFCCC website (http://cdm.unfccc.int) from 08/11/2005 and invited comments within 07/12/2005. • Description of how comments were received and made publicly available The comments were received from the global stakeholders through e-mail. No comments were received within 30 days. After the end of the 30 days commenting period, this information was published on the UNFCCC website (http://cdm.unfccc.int). • Explanation of how due account has been taken of comments received No comments were received from the global stakeholders during the 30 days commenting period. There was no need of any consideration of comments from the global stakeholders for the validation opinion. • Compilation of all comments received No comments were received from persons during the 30 day commenting period. 	<p>Conclusions, final comments and validation opinion</p> <ul style="list-style-type: none"> • 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 <p>BVQI has performed a validation of, in India. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.</p> <p>The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan (November 2005); ii) follow-up interviews with project stakeholders (November 2005); iii) the resolution of outstanding issues and the issuance of the final validation report and opinion (December 2005 – August 2006).</p> <p>The review of the project design documentation (August 2006, version 03) and the subsequent follow-up interviews have provided BVQI with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.</p> <p>The project activity generated electricity by hydropower to meet the ever increasing demand for energy in the region. The development of the project activity is expected to reduce the green house gas [GHG] emissions produced by the Western India regional grid generation mix, which is mainly dominated by fossil fuel based power plants. Apart from the generation of electrical power, the project is also contributing to sustainable development through contribution towards meeting the electricity supply deficit, conserving natural resources and rural and infrastructure development.</p> <ul style="list-style-type: none"> • Will the project result in emission reductions that are additional <p>By generating electricity from hydropower, the project is likely to result in reductions of GHG emissions displacing electricity that would have otherwise been purchased from the grid. An analysis of the barriers like investment [increase in capital cost on account of the delay in approval of the project, reduced tariff, steep rate of 16% for the loan, difficulty in obtaining balance funds, potential delays in payment from the local electricity boards], technological [release of water linked to the irrigation demand, initial commitments from the authorities not materialised] and prevailing practice [low penetration of</p>
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hydropower plants and only two small scale hydro power plants in the private sector before the project activity] indicates 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 is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

During the interviews, the participant [DLHPPL] provided evidence in the form of internal memos dated 1999 that the participant [DLHPPL] were considering the CDM benefits in making the decision on the project investment. These memos referenced articles on carbon markets and India's potential. The documented communication between DLHPPL and the irrigation department provide evidence that the construction of the project started in April 2000. The record of first daily joint meter reading dated 27/07/2001 provides evidence that the power generation started on this date. The validation team therefore concludes that the first real action in terms of construction started in April 2000.

- **Local stakeholder comments and actions taken**

The project participant [DLHPPL] are, India. The host Party – India meets all relevant participation requirements. The DNA of host party, Ministry of Environmental & Forest (MoEF), has confirmed that the Government of India has accessed the Kyoto Protocol in August 2002, has provided approval of voluntary participation and has confirmed that the project contributes to Sustainable Development in India.

Local stakeholders were given an opportunity to review the environmental social review document and comment on the same. Invitation for such review was published in the local newspaper. No comments were received from the local stakeholders.

- **Environmental impacts including transboundary impacts and impact assessment if applicable**

The host country (India) legislation does not require an analysis of the environmental impacts of the project activity since the project activity investment is less than INR 500 Millions. The project participant however has conducted an environmental social review for the project site as a voluntary initiative. This study showed that overall environmental impacts are not significant.

The project activity does not require environmental clearance. The project does not expect to create any negative social or environmental impacts.

- **Appropriateness of the methodology**

The approved methodology AMS I.D, version 09 dated 28/07/2006 was used. The title of the methodology is "Grid connected renewable electricity generation". The project conforms to the applicability conditions of the baseline and monitoring methodologies very well on account of renewable energy nature of the project activity, displacement of electricity from the grid mainly supplied by coal power plants, total installed capacity less than 15 MW, no replacement of old equipment by more efficient equipment, etc.

It is demonstrated that the project activity itself is not a likely baseline scenario due to the existence of barriers like investment, technology, prevailing practice and others as mentioned earlier.

The project activity does not affect the power generation by the other power plant BH – 2 since this is located 10 Km downstream of the project activity. All the water released from the dam, either through the project activity or bypassing it does eventually reach BH – 2.

This version of the methodology AMS I.D does not require publishing the methodology for 30 days period. Hence the EB decision to re-publish the PDD in case of change in the version of the methodology does not apply.

The GHG emissions calculations are documented in a complete and transparent manner using the provisions of the methodology. The calculated annual average of 29,802 tCO₂e over the 7 year crediting period of emission reduction represents a reasonable estimation using the assumptions given by the project documents.

- **Are the provisions for monitoring, verification and reporting in accordance with decision 17/CP.7**

The authority and responsibility of project management and monitoring measurement are clearly described. All indicators of importance for controlling and reporting of project performance are incorporated in the Monitoring Plan. The project personnel are experienced and competent to operate and maintain the plant. The monitoring mainly involves the electricity exported to the grid. Project emissions from import of electricity are to be accounted for if they exceed 1% of exports.

• **Conformance to all CDM requirements as per decision 17/CP.7**

In summary, it is the validation team's opinion that the "12 MW hydropower plant in Bhandardara in Maharashtra, India" as described in the project design documentation of April 2006 meets all relevant UNFCCC requirements for the CDM and correctly applies the approved baseline and monitoring methodology AMS I.D, version 09 dated 28/07/2006 which was the current version at the time the PDD was submitted last to BVQI for validation. Hence BVQI requests the registration of the "12 MW hydropower plant in Bhandardara in Maharashtra, India, in India" as a CDM project activity.

Further details can be obtained from the "Validation Findings" Section and Table 1 of the Validation Protocol in Appendix A of BVQI's Validation report (BVQI report no. BVQI/INDIA/2005/13.49).

The validation is based on the information made available to us and the engagement conditions detailed in this report.

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.

Ashok Mammen

Name of authorized officer signing for the DOE

Date and signature for the DOE

16-08-2006



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