



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	TÜV NORD CERT GmbH
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	22.5 MW Bhilangana Hydro Power Project (BHPP)
Project participants (Name(s))	Swasti Power Engineering Ltd.
Sector in which project activity falls	1 - Energy industries (renewable - / non-renewable sources)
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):	
<div style="padding-left: 20px;"> <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: <div style="margin-left: 40px;"> <input type="checkbox"/> (Attach a list of all Parties involved and attach the approval (in alphabetical order)) </div> <input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation <div style="margin-left: 40px;"> <input type="checkbox"/> (comprehensive list of documents attached clearly referenced) <input type="checkbox"/> List of persons interviewed by DOE validation team during the validation process <input type="checkbox"/> Any other documents. Please specify. </div> </div> <div style="margin-top: 10px;"> <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 </div>	

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 involves setting up a 22.5 MW (3X7.5 MW) run-of-the river type hydroelectric power project on perennial river, Bhilangana (a major tributary of the River Bhagirathi) for generation of grid-connected electricity. The net electricity generated out of this 22.5 MW hydroelectric plant will be exported, under Power Purchase Agreement^{PPA} made with Power Trading Corporation, to the Northern grid of India.

This run-of-the river project envisages generating 121.956 GWh of electricity per year. The project activity indirectly helps in reducing the power deficit in the region and reduces the GHG emission.

As the run-of-the river project is a renewable energy project, the project is intended to reduce CO₂ emissions to the extent of equivalent net electricity generated by mostly fossil fuel based power plants connected to the northern grid of India.

The estimated amount of emission reductions over the chosen 10-year “non-renewable crediting period” is 1,093,040 tCO_{2e} for the crediting period 2007-04-16 to 2017-04-15.

Scope of the validation process

The validation scope is given as an independent and objective review of the project design, the project's baseline study and monitoring plan which are included in the PDD and other relevant supporting documents.

The items covered in the validation are described below:

- UNFCCC & Host Country Criteria
- CDM Project Description
- Project Baseline
- Monitoring Plan
- Background investigation and follow up interviews
- Global Stakeholder consultation
- Draft validation reporting with CARs & CRs
- Final validation reporting.

The information included in the PDD (draft and final version) and the supporting documents were reviewed against the requirements and criteria mentioned above. The TÜV NORD JI/CDM CP has, based on the recommendations in the Validation and Verification Manual, employed 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 based on the information made available to TÜV NORD and on the contract conditions.

Persons that have been interviewed are Mr. Y. S. Raveendranath Reddy (Managing Director, SPEL), Mr. Sumer Singh (Director and Site Incharge, SPEL), Mr. Priya Darshan (Administrative Secretary, SPEL), Mr. Rajesh Miglani (Manager, Ernst & Young Ltd), Mr. Sandeep Kanda (Consultant, Ernst & Young Ltd), Mr. Dev Chand Ramola (President, Bhilangana Ghati Bandh Nijakaran Virodhi Sanghatan, Distt Tehri Garhwal), Mr. Hira Lal (Local Citizen, Tehri Garhwal), Mr. S C Pandey (SDM, Ghansali, Distt Tehri Garhwal), Mr. Govind Badoni (Village Pradhan, Ghansali, Chauras Shera

Village, Distt Tehri Garhwal), Mr. Ram Ghayal Chemal (Village Pradhan, Behada, Distt Tehri Garhwal)

The following documents were provided by the project participant and reviewed throughout the validation process:

<ul style="list-style-type: none"> Compensatory afforestation payments made to District Forest Officer, Tehri Forest Division
<ul style="list-style-type: none"> Financial Appraisal report developed by SBI Capital Markets Ltd, Mumbai, dated September 2004 B) Sanction of Term loan from <ol style="list-style-type: none"> State Bank of Hyderabad, dated 14-05-2005 Andhra Bank, dated 4-03-2005 Indian Bank, dated 1-06-2005 Allahabad Bank, dated 6-05-2005
<ul style="list-style-type: none"> Deed of agreement with M/s IVRCL Infrastructures & Projects Ltd for execution of Civil & Hydro-mechanical construction works of the project, dated 2-07-2005
<ul style="list-style-type: none"> Detail Project Report (Vol- I & Vol- II), developed by Dr. Hutarew & Partner (I) Pvt. Ltd., dated April 2004
<ol style="list-style-type: none"> Environmental clearance to the project, dated 23-06-2004 from Ministry of Environment & Forests, Government of India No objection certificate from Pollution Control Board, dated 25-05-2005 Ministry of Environment & Forests, Government of India.
<ul style="list-style-type: none"> Environmental Impact assessment for Bhilangana H.E. project, Uttaranchal, conducted by Centre for Inter-Disciplinary Studies of Mountain & Hill Environment, New Delhi.
<ol style="list-style-type: none"> 30 year lease letter from Uttaranchal Forest department, dated 04- August 2004 30 year lease letter from Uttaranchal Forest department, dated 03- June 2005 30 year lease letter from Uttaranchal Forest department, dated 01-June 2005
<ul style="list-style-type: none"> Host Government Approval: Ministry of Environment & Forests, Government of India, dated 3 March 2006
<ul style="list-style-type: none"> Proof of local stakeholder consultation <ol style="list-style-type: none"> Minutes of meeting in local language (Hindi) carried on 2-12-2005. The copy has been signed by the villagers representative, Local Govt representative and SPEL. Translated copy attached. Agreement dated 26-12-2005, signed in-between SPEL and Village- Roansal & Village Panchayat Roansal. Translated copy attached. Agreement dated 17-11-2004, signed in-between SPEL and Village Panchayat- Baheda, Patti Nailchami, Vikas Khand Bhilangana. Translated copy attached. Minutes of meeting in local language (Hindi) carried on 4-05-2006. The copy has been signed by the villagers representative, Local Govt representative and SPEL. Translated copy attached. NOC from villages Phalenda (date: 01-04-2003), Baheda (date: 31-08-2003),

6. Chawasera (date: 25-10-2004) and Roansal (date: 20-12-2004) Minutes of meeting in local language (Hindi) carried on 12-04-2004. The copy has been signed by the villagers representative, Local Govt representative and SPEL.
<ul style="list-style-type: none"> Modalities of communicating with the CDM EB & the UNFCCC Secretariat, issued on 27 Sep'06.
<ol style="list-style-type: none"> Project Design Document entitled "22.5 MW Bhilangana Hydro Power Project (BHPP)" (hosted for public comments during 19/05/06 to 17/06/06) Final PDD: "22.5 MW Bhilangana Hydro Power Project (BHPP)" (Corrected and submitted by Project Proponent in September 06)
<ul style="list-style-type: none"> Photographs of progress of construction activity at the project site
<ul style="list-style-type: none"> Contract between Swasti Power engineering & VA Tech Escher Wyss Flovel Ltd for supply of electro-mechanical equipment, dated 20th September 2005
<ul style="list-style-type: none"> Power purchase agreement between PTC India Ltd and Swasti Power Engineering Ltd dated 24 August 2005.
<ul style="list-style-type: none"> Proof for project activity starting date – Implementation agreement in-between UJVNL and SPEL for BHPP project and payment of project premium to Uttaranchal Govt, dated 16.10.2003.
<ul style="list-style-type: none"> Supporting Excel calculation sheets Baseline & emission reduction

For purpose of background information additional documents were reviewed. For details please refer to the validation report.

DOE Validation team

The Validation Team was led by **Mr. Rainer Winter**. Mr. Winter works at TÜV NORD as ISO 9001/14001 Auditor and environmental verifier for EMAS. He is also an approved emission verifier within the European Emission Trading Scheme. Mr. Winter is an authorized JI/CDM assessor and is in charge of the TÜV NORD JI/CDM CP. For this validation he was assisted by:

Asim Kumar Jana, TÜV Nord -Mumbai, India. Mr. Jana, M.Tech (Env Engg), Dipl in Industrial Safety, is a TUV-CERT Lead auditor for ISO 9001/14001 and OHSAS 18001 and certified energy auditor by Bureau of Energy Efficiency of India. Currently he is Manager-CDM Services for TÜV NORD India operation. He is an appointed assessor for TÜV NORD JI/CDM CP and performed validation and verification of several CDM projects.

Manu Maudgal, TÜV Nord- Delhi, India is TÜV -CERT auditor for ISO 14001 and OHSAS 18001. He has received extensive training in the CDM validation & verification process. He is an appointed trainee for JI/CDM certification program of TÜV NORD CERT GmbH.

Ashok Chopra, TÜV Nord -Delhi, India is TUV-CERT Lead auditor for ISO 9001/14001 and OHSAS 18001. He has received extensive training in the CDM validation & verification process. He is an appointed trainee for JI/CDM certification program of TÜV NORD CERT GmbH.

The validation report is verified by:

Mr. Wolfgang Wielpütz. He is ISO 9001 and ISO 14001 auditor, environmental verifier for EMAS and DEHSt- appointed emission verifier in the framework of EU-ETS. He is appointed JI/CDM assessor. Mr Wielpütz is the head of the department: "Integrated management systems, environmental and occupational safety" and the deputy chief of TÜV NORD CERT GmbH.

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 carried out from May '06 to October '06. It was divided into 2 phases: the pre-validation and the final validation.

The pre validation consisted of the following three sub-phases:

- A desk review of the PDD (incl. annexes) and supporting documents with the use of the a customised validation protocol according to the Validation and Verification Manual;
- Back ground investigation and follow-up interviews with personnel of the project proponent, the consultant, legal authorities and other stakeholders;
- Reporting of draft validation findings taking into account the public comments received on TÜV NORD website.

The draft validation report includes Corrective action and Clarification Requests (CAR and CR) identified in the course of this validation.

Throughout the validation 9 CAR and 8 CR were raised.

The final validation started after issuance of proposed corrective action (CA) of these CAR and CR by the project proponent. The validator has assessed the proposed CA with a positive result and after the closure of these CAR and CR the project proponent has issued the final version of the PDD. On the basis of this the final validation report and opinion were issued.

In order to ensure consideration of all relevant assessment criteria, a validation protocol was used. The protocol shows, in a transparent manner, criteria and requirements, means of verification and the results from pre-validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;
- It ensures a transparent validation process where the independent entity will document how a particular requirement has been validated and the result of the determination.

For further information according to the validation protocol see annex of the Validation Report.

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)**

TÜV NORD CERT GmbH published the draft PDD on its website www.global-warming.de on 19th May 2006 and invited comments within 30 days, until 17th June 2006. One comment was received in this period which was made available to public on the same website. In this comment several issues were raised and together with the documentation of the validation team response it is too long to be repeated in this form. For further information see chapter 5 of the validation report.

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**


The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The project is in line with all relevant host country criteria (India) and all relevant UNFCCC requirements for CDM. Project activity approval has been obtained from National CDM Authority as DNA of India vide the Letter of Approval (LoA) dt 3rd March '06.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reduction of 1,093,040 tCO_{2e} is most likely to be achieved within the 10 y (non-renewable) crediting period.

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.		
Name of authorized officer signing for the DOE	Rainer Winter	
Date and signature for the DOE	2006-10-25 	
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