VALIDATION REPORT

Everest Power Private Limited

“100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)” at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited

SGS Climate Change Programme
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Date of Issue:	**Project Number:**
16-11-2009	CDM.VAL1561
Project Title:	
100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP) at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited.	
Organisation:	**Client:**
SGS United Kingdom Limited	**Everest Power Private Limited**
Publication of PDD for Stakeholders Consultation	
Commenting Period:	24 Jan 08 - 22 Feb 08
First PDD Version and Date:	Version 02, 28/12/2007
Final PDD Version and Date:	Version 11, 28/10/2009

Summary:

Everest Power Private Limited has commissioned SGS to perform the validation of the project: "100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)" at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited.

Methodology used: ACM 0002

Version and Date: "Version 07", 14th December, 2007.

The scope of the validation 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. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The report is based on the findings of document reviews, the stakeholder consultation process and responses from the project participants to the findings raised in this report.

The report and the annexed validation describe a total of 21 findings which include: 13 Corrective Action Requests and 8 New Information Requests. All findings have been closed out satisfactorily and project will be recommended to the CDM Executive Board with a request for registration.

Subject:		
CDM Validation		
Validation Team:		
Lead Assessor – Vivek Kumar Ahirwar (previously Nikunj Agarwal) Expert – Ajoy Gupta		☒ No Distribution (without permission from the Client or responsible organisational unit)
Technical Review:	**Trainee Technical Reviewer:**	
Date: 14/07/2009 & 01/12/2009 Name: Sanjeev Kumar & Kaviraj Singh	Name: Kaviraj Singh	☐ Limited Distribution
Authorised Signatory:		
Name: Siddharth Yadav Date: 8th December 2009		☐ Unrestricted Distribution

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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO_2	Carbon Dioxide
COP/MOP	Conference of parties serving as the meeting of parties to Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
DPR	Detailed Project Report
DR	Document Review
E&M Contract	The contract of “The Employee” and “The Contractor” between Everest Power Private Limited (The Employee) and ABIR Contraction Privet Limited (The Contractor)
EPPL	Everest Power Private Limited
EIA	Environment Impact Assessment
GHG	Greenhouse Gas(es)
HEP	Hydro Electric Power
HCA	Host Country Approval
ISHC	International Stakeholder Consultation
INR	Indian Currency
MoEF	Ministry of Environment and Forest
MoM	Minutes of Meeting
MOU	Memorandum of Understanding
MoV	Means of Verification
MP	Monitoring Plan
MWh	Mega Watt Hour
NGO	Non Government Organization
NIR	New Information Request
NOC	No Objection Certificate
ODA	Official Development Assistance
PDD	Project Design Document
PP	Project Proponent
PPA	Power Purchase Agreement
SGS	Société Générale de Surveillance
UNFCCC	United Nations Framework Convention on Climate Change

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Annexes:

1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Everest Power Private Limited to perform a validation of the project: "100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)" at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited in India

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed of the project design documentation, using a risk based approach and conducted follow-up interviews.

By Run-of-the-river technology to be fed up in the Northern Regional Grid of India the project activity will result in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project correctly applies methodology ACM0002 version 07. It is demonstrated that the project 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.

The total emission reductions from the project are estimated to be 3,456,220 tCO2e over a 10 year crediting period, averaging 345,622 tCO2e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The project will hence be recommended by SGS for registration with the UNFCCC.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 8th December 2009

2. Introduction

2.1 Objective

Everest Power Private Limited has commissioned SGS to perform the validation of the project: “100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)” at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project’s compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

2.2 Scope

The scope of the validation 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. SGS has 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 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.

2.3 GHG Project Description

The Malana – II Hydro Electric Power Project is a Run-of-the-river Hydro Power project, located in the Malana Nallah, a tributary of the Parbati River in the Beas Basin, near the Malana village of Kullu District, State of Himachal Pradesh, India. This Project envisages an exploitation of hydro power potential in the upper reaches of Malana Nallah, to produce environmentally friendly power with Run-of-the-river technology to be fed up into the Northern Regional Grid of India.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Vivek Kumar Ahirwar (previously Nikunj Agarwal)	Lead Assessor	SGS India
Vivek Kumar Ahirwar	Local Assessor	SGS India
Ajoy Gupta	Expert	SGS India

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

The site visit was performed on 18th to 19th March, 2008 by Nikunj Agarwal as Lead Assessor who checked the baseline, PDD related documents, CDM consideration, additionality and applicability and the results are summarised in Annex I: Local Assessment checklist. Key stakeholders were interviewed (as discussed in section 6 of this report) and various environmental laws, sustainability issues, energy statistics and all relevant data were cross checked.

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this project is attached as Annex A.1 to this report

3.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR).** A CAR

is issued, where:

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex A.2). In this form, the Project Developer is given the opportunity to “close” outstanding CARs and respond to NIRs and Observations.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Validation Findings

4.1 Participation Requirements

The Host Party for this project is India. India has ratified the Kyoto protocol on 26th August 2002. A Letter of Approval (LoA) was missing so **CAR #1 was raised**. The Project Proponent (PP) provided the LoA dated 27th December 2007; issued by the Indian DNA (reference number 4/20/2007-CCC) which the assessment team checked the date and the reference number, finding both to be acceptable. Hence **CAR #1 was closed out**.

No Annex I Party has been identified in the PDD and therefore no further LoA was available. It is observed that the CDM EB has agreed that the registration of a CDM project activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CER can be transferred to an Annex I Party, a LoA will need to be submitted.

4.2 Project Design

The PP referred to the latest PDD template (Version 03.1 - in effect as of: 28th July 2006).Section A.4.1.4 should not be more then one page limit as per the CDM PDD guidance .The previous version of the PDD was found exceeding this limit hence **CAR #2 was raised**. The PDD version 03 was checked by the assessment team and is within the one page limit as per guidelines. Thus **CAR #2 was closed out**

The proposed project activity aims the installation of 100MW hydro project. **NIR #3 is raised** for ensuring that the project technology would not be substituted during the crediting period. The PP provided the letter of undertaking stating that the technology will not be substituted for the crediting period. Thus **NIR #3 was closed.**

The project is a future project and is still under the construction stage. **NIR #4 was raised** for the schedule for the project implementation .The PP submitted the project status report and it was found that the project would be completed by mid 2009; the same was also discussed during the site visit and found acceptable, hence **NIR #4 was closed**.

CAR #5 was raised to confirm that no ODA was used in the project activity; the same was discussed during site visit. The PP has provided a letter of undertaking for the same. This has been checked and found satisfactory. Hence **CAR #5 was closed**.

The project boundary is not as per the CDM PDD guidelines in the previous vision of the PDD, thus **NIR #6 was raised**. The section B.3 was revised as per CDM PDD guidelines in the PDD version 03 and it was checked was found to be acceptable. **NIR #6 is closed.**

4.3 Eligibility as a Small Scale Project

Not applicable, as it is a large scale project.

4.4 Baseline Selection and Additionality

The project has applied the Approved baseline methodology “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” ACM0002 version 7 dated 14th December 2007. The baseline selected by the PP was the most likely baseline scenario. The baseline is “the electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources”.

The previous version of the PDD does not refer to the latest version of “Tool for the demonstration and assessment of Additionality” thus **CAR #8 was raised**. In response to CAR #8, the PP has revised the PDD as per the latest version 05.2 of” Tool for the demonstration and assessment of Additionality”. The same was checked and was found to be satisfactory hence **CAR #8 was closed.**

The project additionality was demonstrated on the basis of the “Tool for the demonstration and assessment of Additionality” Version 05.2.

Step 1. Identification of alternatives to the project activity consistent with laws and regulations

Sub-step 1a. Define alternatives to the project activity:

The EPPL have considered following alternatives to the project activity:

- Alternative 1: The project activity not undertaken as a CDM project
- Alternative 2: A gas and coal based power project with equivalent power output
- Alternative 3: Power generation technology using wind, biomass, geo-thermal etc.
- Alternative 4: Continuation of the current situation in the Northern Grid with no project activity or alternatives undertaken and through its currently running power plants (which are mostly thermal) and or by new capacity addition to the grid

The previous version of the PDD does not describe all the alternatives with proper references thus **CAR #7 was raised**. In the response to CAR #7 the PP has revised the PDD version 03 in which all the references are adequately mentioned and the same was found was found to be correct. The alternative of a Gas based power plant and coal based power project (Continuation of current situation) has not been considered as a baseline scenario. The tool for demonstration and assessment of additionality version 5.2 has not been followed while eliminating the alternative, hence CAR #7 remained open.

In the response to CAR #7, the PP revised the PDD and provided the following web links and explanation for the elimination of alternative 03.

For Biomass plants:-

The biomass plants in India are usually for domestic proposes only. In the commercial level and at 100 MW capacity of power plant base on biomass is not a common practice .This was checked from the CEA data base which mentions that there is no commercial grid connected biomass plant was installed in India to date. The web CEA data base web link is mentioned below.

http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm

The web link was checked and confirms the same. The explanation given by the PP is found to be correct and satisfactory in the PDD.

For Wind Power project:-

The wind project at 100 MW is not a realistic alternative for the proposed activity because of low Capacity Utilization Factor. The low capacity utilization factor is due to the intermittent nature of wind .More over the wind project at 100 MW capacity requires higher wind potential. But in the northern region of India such level of wind potential/speed is not possible .The PP has provided Wind Map in the following web link.

http://www.cwet.tn.nic.in/html/departments_wpdmap.html

This wind map mentioned the wind power density and wind speed in the different regions in India. Refer to this map, in the northern region the wind potential is much less compared to the other regions in India.

Hence the wind project at 100MW capacity is not the realistic alternative for the proposed project. The same explanation is given by the PP in the PDD and it was found to be correct and satisfactory.

For Geo-thermal technology base power projects

The geo-thermal technology is still not the proven technology in India. The same was cross checked with the CEA data base web site. The PP has provided the following web link.

http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm

The web link was checked and it was observed that there are no commercial grid connected geo-thermal technology base power plants installed in India to date. The explanation given by the PP is found to be correct and satisfactory in the PDD.

Hence the **CAR #7 was closed out**.

Outcome of Step 1a:

The following two alternatives have resulted from the above discussion:-

Alternative 1: The project activity not undertaken as a CDM project

Alternative 4: Continuation of the current situation in the Northern Grid with no project activity or alternatives undertaken and through its currently running power plants (which are mostly thermal) and or by new capacity addition to the grid; the same has been verified by the DOE.

Sub-step 1b. Consistency with mandatory laws and regulations:

Alternative 4 and Alternative 1 are in compliance with all mandatory applicable laws and regulations and are in no way violating any applicable legal and regulatory requirements.

Outcome of Step 1b:

The Alternative 4 and Alternative 1 to the project activity are in compliance with the applicable laws and regulatory requirements for electricity generation in India; the same has been verified by the DOE.

Step 2. Investment analysis

Sub-step 2a. Determine appropriate analysis method:

The PP has chosen the benchmark analysis out of two (investment comparison analysis and benchmark analysis) as appropriate analysis method for demonstrate additionality for project activity as per the "Tool for the demonstration and assessment of additionality - version 05.2".

Sub-step 2b. Option III. Apply Benchmark analysis:

The PP has selected the benchmark as 10.5 % as per Commercial Lending Rate (CLR) from two banks (State Bank of Patiala and Rural Electrification Corporation Limited). Before selection of bench mark, the EPPL has been able to negotiate the CLR of 11.25% from Punjab National Bank, 10.5% from State Bank of Patiala (SBoP) and 10.5% from Rural Electrification Corporation limited (REC). The Prime Lending Rate (PLR) has been recorded as 11.00% to 11.50% by the Reserve Bank of India at the time of Common Loan Agreement execution. The same was cross checked with page no. 106 of the Common Loan Agreement dated 30/08/2006. Finally, the PP has considered the most conservative CLR of 10.5% from SBoP and REC, which is also conservative in comparison to the prevailing PLR, has been taken as Benchmark for Investment Analysis.

The PP has selected the project Internal Rate of Return (IRR) as the financial indicator at the time of decision making to investment in the proposed project activity. In the web hosted PDD version 01. It was mentioned that the project IRR is 12.5 %; thus **CAR #9 was raised** asking for clarification on project IRR come down from 12.5 % to 10.41 % in the revised PDD and the PP was also asked to submit the IRR spread sheet which was used to calculate the earlier IRR as per the requirement of Para 08 of Annex 45 of EB 41. In response to CAR #9 the PP replied that the IRR value mentioned in the web hosted PDD was calculated without the guideline of CDM EB on investment analysis and when EB 39, Annexure 35 "Guidance on the assessment of investment analysis" was uploaded in between 14th – 16th May 2008 when the project IRR model has been revised accordingly. The correction was checked with key differences in between the previous model and the revised model (detailed discussion is being mentioned under CAR #9 Annex 3 of this report) and found that the project IRR has been revised as per the EB 41, Annexure 45, "Guidance on the Assessment of Investment Analysis". Similarly the bench mark value of 14% as per Central Electricity Regulatory Commission (CERC) Power Policy 2003 was considered at the time of the decision making but the same was changed as per paragraph 11 of EB41 annex 45 guidance (and due to the most conservative approach) as CLR of 10.5% from SBoP and REC. Hence **CAR #9 was closed out.**

The PP has selected the project Internal Rate of Return (IRR) as the financial indicator at the time of decision making to investment in proposed project activity. Due to typographical errors in the previous version of the PDD mentioned, the comparison between the project IRR and Equity IRR was wrong thus CAR #9 was raised. The PP has corrected the same in the response .The correction was checked and found to be acceptable.

Project IRR for proposed project activity considering with and without CDM benefits are mentioned in the below table

Project Activity	Project IRR
Without CDM revenue	10.41 %
Considering CDM revenue	12.26 %

The above table clearly shows that the project IRR without CDM revenue is below the benchmark and the same is crossing the benchmark while considering the CDM revenue.

Sub-step 2c. Calculation and comparison of financial indicators:

The PP has submitted the IRR calculation excel spreadsheet. The spreadsheet was checked and found that the project IRR (10.41%) without considering CDM benefits is lower than the selected benchmark, i.e. Commercial Lending Rate (CLR) of 10.5%, as recorded in the Common Loan Agreement of the proposed project activity.

IRR calculation sheet was checked against the supporting documents for the assumptions used in the calculations, such as:

Particulars	**Value**	**Unit**	**Reference Source**	**Comment**
Unit Capacity	50.00	MW	DPR, Made by Pranjna Consultancies Private Limited, Delhi. Chapter :-Power Potential Studies Section 6.4: Number and Capacity of generation unit. Page No :- P-VI-5	The section 6.4 of the DPR mentioned following details : Number of Unit : 02 Capacity of each Unit : 50MW Plant Gross capacity : 100 MW Same was checked and found correct reference.
No of Units	2	No		
Plant Gross Capacity	100	MW		
Auxiliary Consumption	0.70%	MWh	CERC Tariff Guideline	CERC Tariff Guidelines was checked for the Auxiliary consumption, Transformation loss and transmission loss.
Transformation Loss	0.50%	MWh		
Transmission Loss	1.00%	MWh		
Royalty payable to GOHP till year 12	*12.00%*	MWh	Annexure Z: Power Purchase Agreement between PTC India Limited and Everest Power Private Limited, dated 25th July 2005. Page No: - 107 to 108 of PPA. Schedule E:- Tariff Section 2 .1: sub section (b) (iii)	The sub-section (b) (iii) of section 2.1 of the PPA mentioned that free energy at 12% of the Energy Output for the first 12 years and 18% thereafter. Same was checked and found correct reference.
Royalty payable to GOHP afterward	*18.00%*	MWh		
Primary Generation *(90% Dependable*	428.00	MWh	DPR, Made by Pranjna Consultancies Private Limited, Delhi.	The annual generation for different installed capacities are mentioned in the section 6.3.2 of DPR. The 100MW installed

Year) in MWh			Chapter :-Power Potential Studies Section 6.3.2: Annual Energy Generation Page No :- P-VI-3 Section 1.4 : Energy Generation Page No :- S-(iv)	capacity mentions 427.51 MU (427.51 MWh) of 90 % dependable year energy. The PP has assumed 428 MWh as round off value. The section 1.4 (Page No S-(iv) of DPR also mentioned the 428 kWh of electricity generation in 90% dependable year. Same was checked and found correct reference.
Total Energy Generated in MWh	428.00	MWh		
Basic Tax	30%	Basic tax and surcharge	As applicable in Income Tax Rule 2005.	
Dividend Distribution Tax	15.00%			
Minimum Alternate Tax	10%			
Tax Exemption u/s 80 I	10	Consecutive Years During first 15 Years of Operation		
	6	Start year as assumed in the model		
Interest on Working Capital	12.5%		Market Rate Prevailing during Financial Closure	
Annual O&M as a % of Project Cost	1.5%		CERC Tariff Guideline	http://www.cercind.gov.in/bb.htm)
Annual O&M Escalation	4.00%	Rs/kWh	CERC Tariff Guideline	http://www.cercind.gov.in/bb.htm)
Tariff of 1st Five Years	2.64	Rs/kWh	Annexure Z: Power Purchase Agreement between PTC India Limited and Everest Power Private Limited, dated 25th July 2005. Page No: - 106 to 107 of PPA. Schedule E:- Tariff Section 2 .0: The Capped Fixed Tariff Rate and Capped Secondary Energy rate per kWh of Billing Energy.	These values are assumed from the table mentioned in the section 2.0 (page no 106 -107) of PPA . The Levelised Tariff of forty years is assumed on the base of average of Tariff of 1st to 5 years, 6th to 11th years and after 11th years. Same was checked and found correct references.
Tariff from 6 to 11 Years	2.47	Rs/kWh		
Tariff after 11 Years	2.31	Rs/kWh		
Levelised Tariff of Forty Years	2.5	Rs/kWh		
Secondary Gen Tariff	0.75	Rs/kWh		
Rebate on Bills	2%			

Depreciation				
Book (90% of the completion cost)	5389	INR Million	CERC Tariff Guideline	http://www.cercind.gov.in/bb.htm)
Depreciable Value				
Method of Depreciation 1= SLM; 2=WDV	1		As applicable in Companies Act 2006	
Annual Depreciation Rate	2.50%		As applicable in Companies Act	
Life of the Asset	40	years	As per Implementation Agreement	
Method of Depreciation 1= SLM; 2=WDV	2		As applicable in Income Tax Rule	
Annual Depreciation Rate	15.00%			

The project cost used in the IRR work sheet was crossed checked with page no 100 of the Common Loan Agreement submitted by project proponent. The breakup of project cost as given below:-

Description	Unit	Value
Hard Cost		
Civil & Hydro Mechanical works	INR (in Crores)	315.67
Electro Mechanical works	INR (in Crores)	140.00
Transmission Lines Works	INR (in Crores)	40.00
Land & Site Development including Project development	INR (in Crores)	62.33
Total Hard Cost	INR (in Crores)	558.00
Soft Cost		
Upfront Fee	INR (in Crores)	4.18
Interest during Construction	INR (in Crores)	35.82
Total Soft Cost	INR (in Crores)	40.00
Project Cost	INR (in Crores)	598.00

Sub-step 2d. Sensitivity analysis

The ultimate objective of the sensitivity analysis is to determine the likelihood of the occurrence of a scenario other than the scenario presented, in order to provide a cross check on the suitability of assumptions used in the development of the investment analysis. The 100MW Malana-II, Hydroelectric Project financial model is based on

the total annual electricity generation and the source of the power generation is the detailed Power Potential Studies of the Detailed Project Report (DPR). It was observed that the Plant Load factor has not been referred to in the PDD during the estimation of power generation and the tariff (as per PPA) has not been considered for the sensitivity analysis because the tariff used is a Capped Tariff, so no escalation in the tariff during the validity of the PPA is possible

Therefore, a sensitivity analysis was conducted on the financial model by altering the following parameters:

- Total annual electricity generation (plus and minus 10%);
- Project hard costs (plus and minus 10%).

The results of the sensitivity analysis are:

Scenario	Parameter change	Project IRR
Base case		10.41%
Total Annual electricity generation	Plus 10%	10.83 %
	Minus 10%	8.94 %
Project Hard Cost	Plus 10%	9.06%
	Minus 10%	10.57%

The sensitivity analysis show that the project IRR in two cases (i) when the Total annual electricity generation (428 MWh) is varied by Minus 10% (i.e. 385.2 MWh) is 8.94. (ii) When the project hard cost INR Crores 5580 is varied by Plus 10% (i.e. INR Crores 6, 138) is 9.06% .In the both cases the project IRR is less then benchmark 10.5%.

But in case: - (i) when the Total annual electricity generation (428 MWh) is varied by Plus 10% (i.e. 470.8 MWh) the project IRR 10.83%, which cross the benchmark 10.5 % and (ii) When the project hard cost Rs Crores 5580 is varied by minus 10% (i.e. Rs. Crores 5, 022) the project IRR 10.57%. In the both cases the project IRR passing the benchmark 10.5%.

Referring to Para 17 of Annex 45 of EB report 41 "*In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative the DOE shall provide an assessment of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity.*"

Case (i) The possibility of total annual electricity generation becomes 470.8 MWh is 10% only because the energy generation in 90% dependable year is 428 MWh. (Page No: - P-VI-3, Section 6.3.2: Annual Energy Generation, Chapter:-Power Potential Studies, DPR, Made by Pranjna Consultancies Private Limited, Delhi.) and also cross checked by DOE with the formula and the reference from CERC (Central Electricity Regulation Commission) of India. This DPR was approved by the state Government and based on the approved DPR only the PP obtains the Techno Economic Clearance for the project activity, hence the figures mentioned in the DPR can be considered as more authentic as the PP submitted the source of data mentioned in the DPR to the state government and based on that, the same was approved by the state government.
Hence the probability of IRR to cross the benchmark of 10.5% is actually very low. It became very important to note that the PP has selected the benchmark of 10.5% as a conservative approach for this project however there were other options available to choose the benchmark figures like 11.25% as the CLR from the Punjab National Bank. Hence even after increasing the electricity generation by 10% (which is very rare) the IRR would have not crossed the figure of 11.25% CLR from Punjab National Bank (had it been chosen a benchmark for the project activity, which might also be a suitable benchmark, if not opted for the conservative benchmark of 10.5%). The CLR of Punjab National Bank (11.25%) was also validated by the DOE.

Case (ii) the project hard cost is of INR 558 Crores out of which the amount of INR 495.67 Crores is the contracted amount and the same was verified by the contract agreement of the following:

- Civil & Hydro Mechanical Works = INR 315.67 Crores

- Electro Mechanical works = INR 140 Crores
- Transmission Line works = INR 40 Crores

Hence 88% of the Hard cost is already fixed (the remaining 12% is the Land and Site Development including project development cost) and the probability of decrease in the hard cost is very low and hence the project is additional.

Outcome of Step 2:

It observes that the investment comparison analysis clearly demonstrates that the proposed CDM project activity is unlikely to be considered the most financially attractive course of action by EPPL.

Step 4. Common practice analysis

Sub-step 4a. Analyze other activities similar to the proposed project activity:

The PP has demonstrated the common practice comparing to other activities similar to the proposed project activity. The PP has provided the status of hydro electro potential development in India which can be found publicly available on the following link:

http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm (Baseline Carbon Dioxide Emission Database Version 3.0 – OUTDATED)

The above link is the web address for Baseline Carbon Dioxide Emissions from Power Sector of India published by CEA, Ministry of Power, Government of India which mentioned the latest as well as the entire pervious versions of CEA data base .The Baseline Carbon Dioxide Emission Database Version 3.0 was available at the time of PDD preparation and PDD web hosting.

When clicking on Baseline Carbon Dioxide Emission Database Version 3.0, the excel spreadsheet name “database _publishing _ ver3” will open, which contains all India Power Sector Grid Plant data in TAB “data”. To compare with other activity similar to the proposed project activity; this data is filtered on the basis of Regional Grid (in this project activity case Northern Region i.e. NR) and Sector (in this project activity case Private Sector i.e. PVT); thus the following three hydro project are substantiated from all projects operated in the northern region of India.

Project	Capacity of Project (MW)
Baspa HEP 300 MW	300
Vishnuprayag HEP 400 MW	400
Malana – I	86

Sub-step 4b. Discuss any similar options that are occurring:

The following similar activities are observed during the validation process, which were considered at the time of decision in 2004.

- Project: Baspa HEP 300 MW having three units as Unit –I, Unit-II & Unit -III, each capacity of 100 MW which were commissioned in 2003. The project was developed by Jayprakash Hydro Power Limited. The project cost is Rs 1624.72 crores. The reference web links are http://www.jhpl.com/pdfs/tariffpetition.pdf and http://www.jhpl.com/baspa-techinfo.htm
- Project: Vishnuprayag HEP 400 MW developed by JAYPEE Groups. The project consists of four units each with a capacity of 100 MW and these were commissioned in 2006.The approximate cost of the project, as per March 1996 is Rs.1154.0 crores and Rs. 32.47 crores have been spent as of March 1997. The information was verified through the following web link:
  www.jilindia.com and http://www.uttaranchalirrigation.com/hydro/projects_vishnuprayag.htm
- Project: Malana I (Merchant Hydro Plant) developed by Malana Power Company Limited (MPCL). The total capacity of the project 86 MW which was commissioned in 2001 and the activity was started before the year 2000. The reference web link (http://www.malanapower.com/technicalinfo.aspx) was checked and found to be the correct reference.

This information is also mentioned in the section B.5 of PDD version 08. The above three projects are cross checked with the CEA data base (http://www.cea.nic.in) with respective location, the capacity installed and the project developer.
The PP has provided the comparison between above similar project activity based on the ratio of **Investment Cost (INR in Crores)** to **Installed Capacity (MW)**.This ratio means that for the installation of every 1 MW power, how much Investment of INR (in Crores) is required and this ratio is finally comparing to project activity as shown in the below table

Project	**Project Cost (INR in Crores)**	**Capacity of Project (MW)**	**(Cost/MW)(INR in Crores)**
Baspa HEP 300 MW	1624.72	300	5.41
Vishnuprayag HEP 400 MW	1154.0 + 32.47	400	2.96
Malana I (Merchant Hydro Plant)	Ratio 3.75 is directly refer from web link:- http://www.malanapower.com/technicalinfo.aspx		3.75
Proposed Project Activity (Malana II HEP 100MW)	5988	100	5.98

From the above table it concluded that Malana II HEP capital expenditure is 10.54 %, 102.03 % and 59.47 % more than compared to the Baspa project, Vishnuprayag project and Malana I (Merchant Hydro Plant) respectively. Also it seems that the Baspa project has less capital expenditure compared to the other two projects, Vishnuprayag and Malana I (Merchant Hydro Plant), therefore the capital cost per MW of installation versus estimated generation per MW of installation in the case of Baspa HEP and Malana II HEP is as per below table:-

Project	**Cost / MW (INR in Crores)**	**Million Units Generation / MW**	**Reference**
Baspa HEP 300 MW	5.41	4.64	http://www.jhpl.com/baspa-projectprofile.htm
Malana II HEP 100 MW	5.98	4.28	DPR and Common Loan Agreement

From the above table; it can be seen that the results show that Baspa has advantages due to having a lower capital expenditure per MW as well as having a higher potential of generation per MW of installation. Hence the project is not more financially attractive than the compared project.

The above explanation satisfied sub-steps 4a and 4b as per Annex 10 of the EB39 report.

Based on the above discussion it was concluded that the proposed project activity is additional.

In CAR #9 the PP needs to provide the justification of delay in the project activity and justification for serious CDM consideration as per EB41 Annex 46. In response to CAR #9, the PP has provided the sequence of events along with evidence which was verified with the supporting documents and found to be satisfactory.

Sl No.	**Name of Documents**	**Date**
1.	Board Meeting Resolutions with CDM Consideration	26th March, 2004
2.	Techno Economic Clearance (based on the DPR which discuss about the CDM)	15th October, 2004
3.	Enquiry placed for providing CDM Consultancy Services	22nd February, 2005
4.	Offer from Prajna Consultancies (PVT) LTD for providing CDM Consultancy Services	15th April, 2005

5.	Revised Financial Offer from Prajna Consultancies (PVT) LTD	22nd July, 2005
6.	Power Purchase Agreement (PPA)	25th July, 2005
7.	Work Order issued to Prajna Consultancies (PVT) LTD	12th August, 2005
8.	Cancellation of Work Order of Prajna Consultancies (PVT) LTD	28th February, 2006
9.	Board Meeting Resolutions with a mention of hiring EIPL (new CDM consultant) as a Consultant to execute the project	24th March, 2006
10.	Common Loan Agreement in which CDM is being discussed.	30th August, 2006
11.	**Project start date** (As per the E & M Contract between Everest Power Private Limited (EPPL) and Abir Constructions Private Limited).	18th October, 2006
12.	Consultant Contract between EPPL & EIPL for executing the CDM Project development & Sales of Emission Reductions	18th June, 2007
13.	Host Country Approval Date	27th December, 2007
14.	Evidence of Agreements or negotiations with a DOE for validation services and Web hosting of the project	10th October, 2007/ 15th January, 2008 & 24th January, 2008
15.	Expected Commissioning date	July, 2009

4.5 Application of Baseline Methodology and Calculation of Emission Factors

The project activity uses baseline methodology as described under ACM0002 version 07,valid from 14 Dec 07 to 04 Dec 08 and requests for registration can be submitted until 04 Aug 09 23:59 GMT as per large scale CDM project activities.

The excel spreadsheet for the calculation of baseline emissions was not provided by the PP, hence **CAR #11 was raised**. In response to CAR #11 the PP provided the calculations for the baseline emissions. The excel spreadsheet provided did not describe yearly emission reductions; hence CAR #11 was further reopened. In response to the reopened CAR #11, the PP issued a revised emission reduction calculation spreadsheet. This was checked by the validation team and was found to satisfactory. **CAR #11 was closed out.**

The table mentions that section B.6.4 of the previous version of the PDD is not correctly applied as per the guidelines to complete the CDM PDD, hence **CAR #12 was raised**. In response to CAR #12 the PP modified /revised the table under section B.6.4 in the PDD version 03. This was checked by the assessment team and was found satisfactory. Hence **CAR #12 was closed out.**

The project emission has not been considered because of higher power density as per option (b) of the ACM0002 version 07, if the power density (PD) of the power plant is greater than 10 W/m2; then the project emission will be zero. The power density calculated for the project is calculated as the ratio of installed capacity 100 MW (i.e. 1MW=10^6 W) to the submergence area 3.5 hectare (i.e. 1hectare=10^4 m^2) due to project activity which is equal to 2857 watt/$m^2$and this is greater than 10 W/ m^2. Hence the project emission has been taken as zero. The calculation and values are cross verified with Page No 103 of EIA report and Annexure H.

The baseline emission factor is calculated using the Operating Margin emission factor and the Build Margin emission factor. The baseline emission factor is the weighted average of the Operating Margin emission factor and the Build Margin emission factor The applied value of the Operating Margin emission factor is 986.72 tonnes CO2 / GWh and Build Margin emission factor is 628.34 tonnes CO2 / GWh .The Weight Operating Margin and Weight Build Margin by default, are 50% as per latest CEA data base version 03.The web link is
http://cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm

Hence the baseline emission factor is calculated as
Baseline emission factor = 0.5 X 986.72 + 0.5 X 628.34 = 807.53 tonnes CO2 / GWh.

The calculation and applied value reference was checked and found acceptable.

4.6 Application of Monitoring Methodology and Monitoring Plan

The proposed CDM project activity uses the monitoring methodology as described in the large scale methodology ACM0002 version 07

CAR #13 was raised as the monitoring parameters mentioned under the section B.7 were not as per the CDM PDD guidelines for complete the PDD version 07 as per the Annex 12 of EB 41 report. In response to CAR #13, the PP revised the PDD. The revised PDD was checked and all the monitoring parameters are now mentioned as ACM0002 version 7, but the recording frequency of the grid emission factor was inappropriate. Hence CAR #13 was kept open.

The PP further responded that in the revised PDD the appropriate recording frequency of the grid emission factor has been mentioned, the revised PDD was checked and was observed that the Grid EF has not been calculated as per the tools to calculate emission factors for an electricity system. In response to that, the PP has revised the PDD as per:

- Calculation of the emission factor as per, the "CO_2 Baseline Database of Indian Power Sector", version 03. 15th December, 2007, published by Central electricity Authority (CEA), Government of India, has been used, which is based on the "Tool to calculate the emission factor for an electricity system" *(Source: http://cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)*.
- As per the latest version of the methodology, ACM0002, version 07, 14th December, 2007, (page no. - 8), if the power density (PD) of the power plant is greater than 10 W/m^2, the project Emission will be zero. As the power density calculated for the project is calculated as 2857 watt/m^2, greater than 10 W/ m^2, the project emission has been taken as zero.

The power density calculated for the project is calculated as the ratio of Installed capacity 100 MW (i.e. 1MW=10^6 W) to the submergence area 3.5 hectare (i.e. 1hectare=10^4 m^2) due to project activity which is equal to 2857 watt/m^{2}and this is greater than 10 W/ m^2.Hence the project emission has been taken as zero. The calculation and values are crossed verified with Page No 103 of EIA report.

This was checked by the assessment team and found to be satisfactory hence **CAR #13 was closed out.**

CAR #14 was raised due to the data archiving system having not been discussed for the parameters to be monitored in the PDD. In response to CAR #14 the PDD was revised as the section B.7.2 for monitoring parameters mentions that the Data would be stored electronically for all the parameters. The hard copies of invoices and meter readings are also required to be stored; this was checked and found to be satisfactory hence **CAR #14 was closed**.

NIR #15 was raised as according to Annex 4 of the PDD the authority and responsibility for registration, monitoring, and reporting is clearly described but the responsibility for measurement was not described. In response to this NIR, the PP has incorporated the missing details in the revised PDD, which was found to be satisfactory; hence **NIR #15 was closed out**.

NIR #16 was raised as no procedures were identified for training and maintenance for the project activity. In response to NIR #16, the PP replied that the CDM group constituted after suitable training on CDM and its related monitoring activities with participation of the Project Manager, Site Supervisor and Shift In Charge, will be responsible and will review periodically all the requirements of monitoring the CDM projects and maintain logbooks. The PDD has been revised along with a description of the Training & Maintenance plan of the project activities and the internal audit would be carried out. This was checked by the assessment team and found satisfactory. **NIR #16 was closed out.**

NIR #17 was raised as the procedures for calibration described in the PDD are not consistent as the frequency of calibration mentioned under Annex 4 of the PDD says "PTC may conduct periodic calibration" while under section

B.7.1 it says that calibration would be as per the technical specifications. The PP replied that normal testing will be done once a year. But as per the written notice given to the Company by Power Trading Corporation (PTC), it may conduct Periodic Performance Tests at any time during the Operation Period. PTC issues a written notice to the Company, to conduct one Periodic Performance Test in each Operation Year. But the frequency of calibration is not described in the PDD. Further the PP has revised the PDD as per the frequency of calibration as mentiond in the PPA. The frequency of calibration mentioned in the section 9.2.2 Testing and Calibration of meters in the PPA page no 56 as "The meters (and associated circuit, if necessary) shall be tested and calibrated in accordance with the provisions set out in the connection agreement and IEGC, or at any time when the difference between the readings of the Main meter and the corresponding Check meter is found to exceed zero point four percent (0.4 %)." "The Meters (and associated circuits, if necessary) shall be tested and calibrated in accordance with the provisions set out in the Connection Agreement and IEGC, at least once in two (2) tariff years**,** or at any time when the difference between the readings of the Main meter and the corresponding Check meters is found to exceed zero point four percent (0.4%)". This was checked and found satisfactory hence **NIR #17 was closed.**

NIR #18 was raised as the procedures for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems have not been described in the PDD. In response to NIR #18, the PP replied that the same has been described in the Internal Audit paragraph of the monitoring section of the revised PDD. This was checked by the assessment team and found to be satisfactory. Hence **NIR #18 was closed out.**

4.7 Choice of the Crediting Period

The start date of the project activity and operational lifetime as mentioned in the PDD is 18th October 2006 and 40 years, respectively. The E & M contract dated 18th October 2006 was submitted by the PP for start date of project activity and was checked during site visit and was accepted as per Para 67 EB 41.

The project activity is not commissioned yet and is expected to be commissioned in mid 2009.

The PP has chosen the fixed crediting period of 10 years for the project activity.

4.8 Environmental Impacts

The compliance with local environmental regulations in that EIA requirement for the project activity was checked.

The project required approval from the Ministry of Environment and Forests (MoEF), under the Environmental Protection Act 1986. As part of the approval process, a comprehensive environmental assessment of the Project was prepared in accordance with the requirements of MoEF.

Consent to establish the Malana II HEP was obtained from the Himachal Pradesh State.

NIR #19 was raised such as to ask the PP about the EIA report and necessary government approvals .In response to NIR #19 the PP provides the following necessary government approvals along with the EIA report and

- Implementation Agreement
- EIA Clearance
- Forest Clearance
- NOC Irrigation
- Site Clearance
- Fisheries NOC

The documents were checked and it was observed that the initial agreement with the Government of Himachal Pradesh was carried on 13/01/2003 while the MOU was signed on 27/05/2002.The PP has provide the Board Note dated 26/03/2004 .The Board Note was discussed about availing CERs for the project activity. EIA Clearance and Forest Clearances were checked and found to be acceptable. All above mentioned government clearance was provided by the PP. The same was checked and found acceptable. Hence **NIR #19 is closed out**.

4.9 Local Stakeholder Comments

NIR #20 was raised as the media used to invite comments by local stakeholders was not provided by the PP. In response to NIR #20, the PP provided the document from Himachal Pradesh State Pollution Control Board Clearance .The clearance was checked and it mentions about the public notice circulated in various newspapers on 27th – 28th February 2004 intimating to the stakeholders that the public meeting was to be carried out on the 11th-12th May 2004 which was later postponed to the 18th – 19th May 2004. The clearance submitted is from Himachal Pradesh State Pollution Control Board and the same is authentic. **NIR #20 is closed out.**

NIR #21 was raised such as to ask the PP to submit the MoM of the Local Stakeholder consultation. In response to NIR #20, the PP submitted the MoM of the Stakeholder meeting. It was observed that the public hearing for the project activity was carried out, Himachal Pradesh State Pollution Control Board and the proceedings have been provided by the same and are an authentic document. The proceedings were checked and discussed with the PP and were found to be acceptable hence **NIR #21 was closed out**.

5. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

5.1 Description of How and When the PDD was Made Publicly Available

The Project Design Document for this project was made available on the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=435 and was open for comments from 24-01-2008 until 22-02-2008. Comments were invited through the UNFCCC CDM homepage

5.2 Compilation of all Comments Received

Comment Number	Date Received	Submitter	Comment
1	24-01-2008	**Nestle Rog**	I guess, PDD is supposed to be uploaded and not PCN for stakeholder consultation.
02	25-01-2008	**J.M.Singh**	Ref.Page23ofPDD: The project IRR without CDM is 12.5 % and compared the bench Mark Value of CERC. However, CERC has given the bech mark value 14 % based on return on equity not project IRR. How project developer can compare Project IRR with Return on Equity (14% 0f CERC bench mark value)?
03	11-02-2008	**Shashi**	ACM0002 version 7 stipulates monitoring of Installed capacity of the plant as well as area of the reservoir on yearly basis.How does the developer intend to include this in the PDD?
04	22-02-2008	**Himanshu Thakkar**	February 22, 2008 Comments about the proposed CDM credits for The Malana 2 Hydroelectric project in Himachal Pradesh, India Based on reading of the Project Design Document for the 100 MW Malana 2 Hydropower Project (as available on the UNFCCC website) in Kulu district in Himachal Pradesh, North India and the Environment Impact Assessment for the project, SANDRP representative having visited the project site before the public hearing for the project and having monitored India's power sector over the last few years we reach the conclusion that it will not be appropriate to accept the project for CDM credits and the project should not be validated under the current circumstances. Some of the main reasons for this conclusion are listed below.

Comment Number	Date Received	Submitter	Comment
			1. The project is clearly not additional: The project was given to the Everest Power Company by Himachal Pradesh govt five years back. It has been under execution since 2004. The project has already achieved financial closure on Aug 3, 2006, without any assumption of CDM credits, hence the project has been going on without the need for CDM credits. The project was justified in its Techno Economic Clearance application to the Central Electricity Authority, without mentioning the need for CDM credits. The project signed Power Purchase Agreement on July 25, 2005, again without mentioning the CDM credits. So the power from the project is already been contracted to be sold, with all the assumed costs included, and without the consideration of CDM credits. 2. The project makes rather shocking claim that there was no alternative to this project for the entire power sector in India, thus it presents business as usual without project as the only baseline option. This is clearly wrong and unacceptable. There are many options available for power sector in India, including Demand Side Management options, reduction of the huge transmission and distribution losses, improving end use efficiencies, improving generation performance of existing power projects, and also a large number of new generation options, most notably, small hydro, wind, solar and so on. 3. A project of such magnitude should have shown that it has followed the recommendations of the World Commission on Dams, but neither the project has shown it, nor has it followed the WCD recommendations. This is true for both the generation side as well as the transmission side of the project. 4. The Environmental Impact Assessment of the project is not available in in the local language to the affected people. 5. The claim that there will be no adverse downstream impacts is not supported by study of the downstream biodiversity and their relation with flows across at least two years, as normally required. 6. The claim on page 3 of the PDD that, “The direct beneficiaries of this project (apart from the project proponent) shall be the villagers of Malana village, which is a small village of about

Comment Number	Date Received	Submitter	Comment
			500 families situated on a plateau of Chandrakhani mountain at a height of about 12000 ft" is totally wrong and misleading. The people of Malana village, host to one of the oldest example of local self government, will only get adverse impacts of the project, no benefits. 7. The claim of the PDD on page 4, "The project being a typically a peaking station will help in mitigating the substantial peaking power deficit" is wrong as majority of the claimed 428 GWHr power in 90% dependable year will be generated in no peaking mode as the project will not be working as peaking power station during summer and monsoon months when there is more water in the glacier fed river. Similarly the claim of the power from project being environment friendly is misleading, as all such projects have significant adverse impacts in the local area, all suffered by the local communities, who typically get no benefits from such projects, they are not even part of the planning or decision making processes and they are not even fully informed about the projects impacts, even full EIAs are never available in local languages. Moreover, the projects also consume a lot of materials and create adverse environmental impacts during their lifetime, which all should be calculated while calculating the potential of carbon emission reduction from such projects. 8. The claim on p 20 of the PDD that, "The project activity is not sufficiently profitable in the absence of CDM revenues, and it faces important geological, institutional and investment barriers" is not correct. The project has been taken up many years ago, when there was no known possibility that the project would get CDM credits. Moreover, such projects are taken up without CDM credits. 9. The claim on p 20 of the PDD that, "Alternative 1: The project activity not undertaken as a CDM project As the project faces various barriers as described in the Barriers Analysis, this alternative cannot be undertaken without CDM consideration" is totally wrong. If such claims are accepted at face value, than UNFCCC process would become a laughing stock. 10. While calculating the power density of the project, a figure of 3.5 ha is used on page 2 of the PDD for submergence. However, the

Comment Number	Date Received	Submitter	Comment
			project would require a total area of 37.62 ha of land as per the EIA of the project and even the reservoir of the project would require 6.4 ha. Thus, the PDD of the project is giving wrong information, thus misleading UNFCCC and everyone. 11. Section E.2 and E.3 on page 42 of the PDD notes, for the comments of the stake holders received and how it has been responded, “The detailed of the comments received and response has been document and is attached separately.”, however, these have not been attached in the PDD. Similarly, in Annex 2, it stated about the public funding, “Sanction Letter from all the Banks is attached separately”, however these are not attached. Thus, PDD is fundamentally incomplete, besides being flawed. 12. Having come to know that the pubic hearing for the project would be held on May 18 and 19, 2004, a representative from out organisation visited the affected villages in early May and found that the affected people did not know anything about the project, its impacts, its EIA-EMP or about the pubic hearing slated. On informing them about their role in this process, the people of affected people wrote letters to the concerned officials in the Himachal Pradesh Pollution Control Board and Himachal Pradesh Environment Council informing that they have not been informed about the above and hence the public hearing should not be held as scheduled. We also wrote similar letters to the concerned officials, copies of which are available to us. The local newspaper also reported about this on May 5, 2004, clippings of which are also available with us. All this clearly shows that there has been no worthwhile public consultation for the project and the claims to the contrary are wrong. Under the circumstances, validation of the project in current form for CDM credits will not be appropriate and it would be absurd if the project gets validated, registered as CDM activity or gets CERs. Himanshu Thakkar (ht.sandrp@gmail.com) South Asia Network on Dams, Rivers & People, Delhi, India (www.sandrp.in)
05	22-02-2008	**Barbara Haya**	RE: Lack of additionality of Malana II and serious harm to community

Comment Number	Date Received	Submitter	Comment
			This project is clearly non-additional and harmful to the neighboring community. The following are grounds on which this project should be rejected: 1. The project is clearly non-additional. Government approval was granted in 2002 (http://tonto.eia.doe.gov/ftproot/forecasting/0484(2003).pdf) The MoU/PPA was signed in 2004 (http://www.ptcindia.com/list-of-projects.html) And the project is well under construction (e.g. http://www.energyinfratech.com/present_activities.html#MALANA) Given the above, especially that construction is already under way, a conservative assessment of project additionality would rule that the project is non-additional. The developers signed a PPA with the government, reach financial closure and started construction before even submitting the project for CDM approval. That is, they decided to undertake the project without knowledge that the project will be successfully registered as a CDM project. It is clear then, that the project would have gone ahead without the CDM, for in fact, it did. Proof that the developers considered the CDM in the decision to develop the project is not proof that the project required the CDM to go forward. Further, it is unrealistic to believe that the developers built the project with confident expectation that they would receive revenues through selling carbon credits. The MoU/PPA was signed, and it seems initial construction already started, before the first project was registered under the CDM and before Russia ratified the Kyoto Protocol such that the Protocol would enter into force. 2. I request that you carefully examine the adequacy of the stakeholder consultations. A colleague familiar with the region describes Malana thus: Malana is one of the last remaining mysteries of the Himalayas, inhabited by a fiercely independent people, who still have their own governance systems intact, with their own deity Jamlu, and an unique language which is not spoken outside the village. Reaching there has traditionally been difficult. According to the PDD Malana village is situated

Comment Number	Date Received	Submitter	Comment
			directly below the dam, and so will be directly impacted by the changes to the river caused by the dam as well as the dam construction. Given this, I encourage DNV to take the stakeholder consultations very seriously and check if the stakeholders requirements have been met. The guidelines for the stakeholder consultation requirements are minimal . But they do provide a few basic principles. The guidance is: “An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilities comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted. In this regard, project participants shall describe a project activity in a manner which allows the local stakeholders to understand the project activity...” “Facilitating comments” requires as a minimum that that all people directly affected by a CDM project should be informed of the project and of opportunities to provide comments on the project. Enabling “local stakeholders to understand the project activity” means that the villagers must be given full information about the expected effects of the project on them in a language and means that they can understand. Given the remoteness of the village I encourage DNV to realistically assess if the villagers were effectively made aware of the public consultations, and were provided enough information about the effects of the project and an appropriate manner.
06	22-02-2008	**Naveen Sharma**	I have read the PDD, and I am generally concerned! I am concerned about the piteous qualities of PDDs, I am concerned about the way facts are being twisted and stories are being concocted to justify additionality of the project when in reality these are common business as usual projects that have been taking place since the last 50 years and will continue to take place with or without CDM. When CDM was introduced, I was happy, I was happier when I went through the rules and procedures of CDM, happy with the fact that; at last, an attempt is being made to promote projects that are additional both business wise as well as environment wise.

Comment Number	Date Received	Submitter	Comment
			But the more I read these subaltern PDDs, I can¡¦t help but think that people have finally found a way to corrupt a wonderful system. The devious nexus between business men (project developers), consultants (who write PDDs) and DOEs (who should have at least looked at the PDD before webhosting it) is clear and visible. In the following sections I have tried to point out the stupidities that are on display, I leave it to the readers and the CDM EB to form their own opinions. 1. Section B.5 of the PDD ¡V Additionality, Sub step 1(a): You write that alternative 4 i.e. continuation of the current situation is the most likely alternative in the absence of the project activity. I hope you understand the meaning of the word plausible, if you don¡¦t I suggest that you read the dictionary first before you write any more PDDs. Seriously, I can¡¦t think of any other reason but a poor understanding of the English language that could have lead to such irresponsible statements that do nothing but scream about your ignorance. I hope you know that there is something called as the Central Electricity Authority (CEA) and that CEA has a website. If you go to CEA¡¦s website, you will find that already 25,959 MW of power capacity is already under implementation in the Northern Grid. Now for a moment let us assume that you didn¡¦t know about CEA. The planning commission of India has clearly spelt out in various policy documents that the targeted capacity addition under 11th plan (upto 2012) is 100,000 MW. This has come in hundreds of news and media releases. My request to the DOE is to do a google search on this item; you can't even count the number of entries you will find. How can you still say that no other power projects are likely to come up in the Northern grid. Are you out of your mind, I can¡¦t possibly think, why in this world would you make a statement that the most likely alternative in the absence of the project activity is the continuation of current situation (no project activity or other alternatives undertaken). I hope by now you would have realized that your attempt, to build stories about the project¡¦s additionality, has failed. If you have even a remote understanding of the CDM rules, then you would know that your project is not additional. But looking at the quality of your work in the PDD, I think it is better that I explain this in simple terms so that all three of you (PP, Consultant and DOE) understand this clearly.

Comment Number	Date Received	Submitter	Comment
			You have already discounted that alternative 2(Gas) and alternative 3(Coal) in anyway are not realistic alternatives. As you can see, alternative 4 is also not plausible. Therefore there are no alternatives that would have taken place in the absence of the project activity in other words; the project activity itself is the only plausible option. And hence the project is not additional. 2. Section B.5 of the PDD ¡V Additionality, sub step 3 ¡V Barrier Analysis: Investment Barrier ¡V High Capital Cost: You have written that the project faces investment barriers on account of its high capital cost as compared to thermal power project. Now what can one say about this enlightening statement? Don¡¦t you know that thermal generation has a fuel cost component to it whereas hydro projects don¡¦t. It is common knowledge that hydro is the cheapest source of power, the levelised cost of hydro will always be substantially lower than that of thermal projects. I demand that you carry out levelised tariff calculation of all you projects and web-host it for public comments. I know you will find some pretext of not doing it, because you know that if you do a levelised cost calculation, it would be clear that the project itself will be the most financially attractive. All your stories and lies would fall apart. Investment Barrier ¡V Low Return on Investment: You have mentioned that you have a project IRR of 12.5%, and then you go and compare the same with the CERC 14% which is the benchmark number for Equity IRR. Is it because you don¡¦t understand the difference between project IRR and equity IRR? I can¡¦t possibly comprehend that someone who has made Rs. 600 crores investment doesn¡¦t even know the difference between project IRR and equity IRR. Assuming an interest rate of 9 -10%, you will have an equity IRR which would be well over 14% (no matter how much window dressing is done). There is no way this project can be termed as additional. In view of this, one can¡¦t help but think that this is a deliberate attempt on part of the Project Proponent to hide the true profitability of the project and wangle additionality arguments or you have a completely incompetent consultant. Now how you would like to respond to that is up to you. I would also request that the project proponent web host the financial model and loan

Comment Number	Date Received	Submitter	Comment
			application documents that were used to secure financing for the project. Lets see, if you are telling the same story to every one. Most important: Your project is going to be a peaking power station that will sell to PTC. In the northern region, peak electricity has been traded at more than Rs. 10 per unit. Tell me any other project in India or in the world that would get this kind of tariff. And you still call your project as additional¡¨. Note to DOE: Please web host the PPA signed with PTC for public review. Investment Barrier ¡V Geological risk: If your point is that to counter geological risk you had to reinforce the civil structure which resulted in extra costs, this argument is completely irrelevant because you have already captured the cost impact in the investment analysis (Project IRR calculations). How can you take credit for the same argument twice? Please think before writing. If your point is that the project becomes risky because of the geological risk, please try to understand that Barriers should be prohibitive and should be such that they get alleviated by CDM benefits. How do you think CDM benefits will alleviate the risks of earthquake? Similarly, for all other additional items that you write as reasons for excess project cost, please understand that you have already factored the same in Investment analysis and therefore these are not relevant as barriers any more. Investment Barrier ¡V Power evacuation system: Same is the case with power evacuation. My suggestion is that please think before you write, don¡¦t put any and every story you can think of as additionality arguments. This is not a story writing competition. Policy related barriers - Evaluation of prevailing practice in Indian Power Planning: You have written that the share of hydro in total generation has been declining over the period of last 40 years. You have also written that private sector participation in Hydro is less than half of what it is in thermal power. Please keep a cool head and think, how is Malana Power 2 facing barrier because the share of hydro is declining for the last 40 years. Do you think there is some umbilical cord between your project and these statistics? Other policy related barriers: The remaining part of the barrier section is an unnecessarily long rhetoric about power sector

Comment Number	Date Received	Submitter	Comment
			policies that have little relevance for the project. The approach here seems to be to divert the reader¡¦s attention from real issues (in the PDD) by giving unnecessarily long write ups about generic developments in the power sector. As any one can see, there is absolutely no mention about any particular policy barrier that would have prevented the project activity from happening. I am running out of patience in trying to point out these basic mistakes to you. Instead of writing unnecessary data you would better if you try to find a barrier for your project. Unfortunately from what you have written, there appears to be none. Common Practice test: Your project is located in Himachal Pradesh. The entire electricity generation in Himachal Pradesh is hydro; there is not even a single thermal plant in this state. Still you proclaim that your project is not a common practice. What I would also want to know is that you are located on the same river as Malana-1 hydro power project. When Malana-1 could take place without CDM how come your project (being on the same location, same river, same state and under the same regulatory regime) needs CDM to survive.

5.3 Explanation of How Comments Have Been Taken into Account

Date:	24/01/2008	Raised by:	Neslt org
I guess, PDD is supposed to be uploaded and not PCN for stakeholder consultation.			
Project Participant Response:		Date: 04/11/2008	
At the beginning the PCN was web hosted by mistake but rectified with PDD within few hours.			
Acceptance and Close out by Lead Assessor:		Date: 02/12/2008	
Information Provided: UNFCCC's web site Information Verified: Mistake is rectified and uploaded the PDD version 02 within the time.			Verified Document Reference: PDD version 02
Reasoning for acceptance and close out: The Project proponent recognized that PCN was web-hosted instead of PDD by mistake. The PP accepted the mistake and rectified that with providing the PDD version 02 within the time and has been uploaded. This was checked and satisfactory. Thus this issue has been closed.			

Date:	25/01/2008	Raised by:	J.M.Singh

Ref.Page 23 of PDD: The project IRR without CDM is 12.5 % and compared the bench Mark Value of CERC. However, CERC has given the bench mark value 14 % based on return on equity not project IRR. How project developer can compare Project IRR with Return on Equity (14% 0f CERC bench mark value)?	
Project Participant Response:	Date: 04/11/2008
The PDD has been modified as per the latest EB report (EB 41), where the Commercial Lending Ratio has been taken as the benchmark for the project activity and has been compared with the project IRR to establish that the project will not be financially attractive without the CDM revenue. (Please refer to page no. – 14 in the Revised PDD attached as Annexure A).	
Acceptance and Close out by Lead Assessor:	Date: 04/11/2008
Information Provided: Common Loan Agreement Information Verified: Commercial Lending Ratio is taken from page no 106 of Common Loan Agreement and PDD was revised.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: DOE raised the CAR 07, CAR 09 and CAR 10 in the Annex 3 of this report. For demonstrating and justifying the Additionality, Alternatives to the project and Barrier analysis which also includes issue related to the project IRR without CDM and benchmark value. During the validation period, PP modified the PDD as per EB 41 report justifying that the Project IRR and the Equity IRR of Malana II HEP is 10.41 % and 8.74 % respectively without considering the revenue from the sale of CERs, which is lower than the selected benchmark, i.e. Commercial Lending Rate (CLR), as recorded in the Common Loan Agreement of the project activity (page no -106). The Commercial Lending Rate (CLR) is 11.25% of Punjab National Bank, 10.5% of State Bank of Patiala (SBoP) and 10.5% of Rural Electrification Corporation limited (REC). Considering the most conservative CLR of 10.5%, i.e. CLR of SBoP and REC, which is also conservative in comparison to the prevailing PLR, has been taken as Benchmark for Investment Analysis. Revised PDD has been incorporate with the selecting the appropriate benchmark (CLR) and same has been compared with the financial indicator (project IRR) as per latest guidance mentioned in the Annex 45 of report EB 41. Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe appropriately. Hence this issue has been satisfactorily closed out.	

Date:	11/02/2008	Raised by:	Shashi
ACM0002 version 7 stipulates monitoring of Installed capacity of the plant as well as area of the reservoir on yearly basis. How does the developer intend to include this in the PDD?			
Project Participant Response:		Date: 04/11/2008	
PDD is updated as described in ACM0002 (Page no. – 26), Version 07 and the revised PDD is attached in the Annexure A.			
Acceptance and Close out by Lead Assessor:		Date: 02/12/2008	
Information Provided: ACM0002 version 07 (Page no 26) Information Verified: PDD version 03 is revised as per Methodology monitoring parameter requirement.		Verified Document Reference: PDD version 03	
Reasoning for acceptance and close out: The DOE asked the PP to demonstrate the monitoring of the installed capacity of the plant as in CAR 13, monitoring parameters has been incorporated in the revised PDD .The final PDD was checked and found that the all the monitoring requirement of approved methodology ACM0002 version 07 has been addressed in the final PDD. Please refer section 4.6 of validation report for further details of monitoring plan for the proposed project activity .Hence this issue was closed out.			

Date:	25/01/2008	Part:	01	Raised by:	Himanshu Thakkar

Based on reading of the Project Design Document for the 100 MW Malana 2 Hydropower Project (as available on the UNFCCC website) in Kulu district in Himachal Pradesh, North India and the Environment Impact Assessment for the project, SANDRP representative having visited the project site before the public hearing for the project and having monitored India's power sector over the last few years we reach the conclusion that it will not be appropriate to accept the project for CDM credits and the project should not be validated under the current circumstances. Some of the main reasons for this conclusion are listed below.

1. The project is clearly not additional: The project was given to the Everest Power Company by Himachal Pradesh govt five years back. It has been under execution since 2004. The project has already achieved financial closure on Aug 3, 2006, without any assumption of CDM credits; hence the project has been going on without the need for CDM credits. The project was justified in its Techno Economic Clearance application to the Central Electricity Authority, without mentioning the need for CDM credits. The project signed Power Purchase Agreement on July 25, 2005, again without mentioning the CDM credits. So the power from the project is already been contracted to be sold, with all the assumed costs included, and without the consideration of CDM credits.

Project Participant Response:	Date: 04/11/2008

- The project has been awarded to Everest Power Private Limited by Himachal Pradesh Government through Memorandum of Understanding (MoU) executed on 27th May, 2002, after which the project proponent has started the required detailed investigations and survey of the project site. The actual project start date is on 18th October, 2006 (Annexure S – E & M Contract (Volume I), as per the EB 41 report, Point 67 (source: http://cdm.unfccc.int/EB/041/eb41rep.pdf).
- EPPL has concluded the financial closure through a Common Loan Agreement (Please refer to Annexure Q, hard copy) amongst Rural Electrification Corporation (REC), State Bank of Patiala & Punjab National Bank, dated 30th August 2006, which is based on the Subsequent Agreement to Equity Subscription Agreement (signed on 23rd October, 2003) signed on 21st March, 2005 with serious CDM consideration. Further, the main Lender Rural Electrification Corporation Limited has approved that the Common Loan Agreement has been executed considering the Subsequent Agreement dated 21st March, 2005, which has taken serious CDM consideration. As per Annex 46 of EB 41 report, a table has been prepared on the basis of CDM consideration at various stages of the project conceptualisation and implementation and has been attached as Annexure T.
- The Techno-economic Clearance (TEC) of any Hydro project take care of the finalization of the technical parameters and related estimation of the total hard cost of the project activity and does not incorporate the risk part of the project. In case Malana II HEP also, TEC is only one of the clearances from the respective Government Regulatory Body to finalize the technical components of the projects and does not consider the detailing of financials of the project or its viability. So, reference of CDM has no significance at the TEC level. Again, the requirement of techno-economic clearance of CEA for thermal generation project is no longer there. (Source: http://powermin.nic.in/JSP_SERVLETS/internal.jsp).
- PPA:
  1. The Malana – II HEP has been taken up for development as a CDM project, to avail the incentives from the sale of CERs to mitigate the weak financials of the project and make it investment friendly.
  2. The project has been planned to generate power 428 Million Units based on “90% Hydrology” data as arrived during the investigation.
  3. The PPA as executed between PTC and EPPL for sale of power generated by the Malana-II project and not for the sale of CERs, so, any commercial reason does not arise to put CDM into the PPA.
  4. The proposed sale of the CERs after successful registration of the Malana – II CDM Project and commissioning of the project, will be done through execution of an Emission Reduction Purchase Agreement (ERPA) with an entity, a compliance buyer from any Annex 1 country or a CER Trader, depends on various criteria as going to be decided by the Management of EPPL, where the CDM aspects of the project will be mentioned clearly.
  5. The PPA has been executed much before the possible registration of the Project as CDM project and related sale of CERs through an ERPA. Therefore, any mention of the CDM aspects or related CER revenue of the Project in the PPA (which is legally binding and regulated) during its execution time, is not possible with proper quantifications, and may leads to enhance further commercial risks for the Project.
  6. The mention of CDM and related CERs in the PPA will enhance PTC’s (the Power Trader, who is the bulk customer of Power from the project) bargaining capacity on the long-term Power Tariff towards a more reduced price, will hamper the project financials and defeats the very decision of the project to be developed as CDM project to enhance the project financials. This could have created a situation that the project would have failed to attain the financial closure and would have not been materialized.
  7. Mention of CDM in the PPA eventually would have passed on the CDM benefits of the project to PTC, who does not have any stake in the project risks and does not hold any justifications to enjoy the CDM benefits.
  8. Central Electricity Regulatory Commission (CERC), based on whose guide line, the Power Tariff has been finalized with PTC, did not have any provision at the time of execution to incorporate the revenue generated from CDM / sale of CERs in the PPA.
- To address the investment hurdle (Please refer the Geo-technical Note attached as Annexure W), a Board Meeting was held to consider CDM revenue in a serious manner prior to project implementation to make the project financially attractive. A transparent Investment analysis has been mentioned in the PDD attached as Annexure A. again as a Main Lender, Rural Electrification Corporation Limited has approved that the Common Loan Agreement has been executed

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: Focal point of E & M contract and PPA and Chronology of Project implementation . Information Verified: Start date of project activity is date of contract sign with E & M and PDD version is revised as per Para 67 of EB 41.Cronology showing delay in project activity.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: DOE recognized that the previous version of PDD was not reflecting the serious CDM consideration at the time of project installation and during validation ,the same was asked to the PP to demonstrate the start date of project activity as per the Para 67 of EB 41 .The PP was replied that as actual start date of project activity is 18th Oct 2006 which is the date of contract signed between the E & M as per the "Start Date" mention in "Glossary of CDM terms" in the latest Para 67 of EB41and PDD version 03 was revised in the similar manner to give the transparent picture . Also DOE asked the PP to provide the proof of project implementation stones in line with CDM millstones as per requirement of Annex 46 of EB 41 report during validation and the PP provided the same with evidences to justify the delay in the project activity due to various time consuming process to collect required clearances. As per above arguments with evidence from the PP, the project falls into the investment analysis, which is additional towards the project activity. Hence this issue was satisfactorily closed out.	

Date:	25/01/2008	Part:	02	Raised by:	Himanshu Thakkar
The project makes rather shocking claim that there was no alternative to this project for the entire power sector in India, thus it presents business as usual without project as the only baseline option. This is clearly wrong and unacceptable. There are many options available for power sector in India, including Demand Side Management options, reduction of the huge transmission and distribution losses, improving end use efficiencies, improving generation performance of existing power projects, and also a large number of new generation options, most notably, small hydro, wind, solar and so on.					
Project Participant Response:				Date: 04/11/2008	
In the revised PDD (attached as Annexure A, Section B. 5, Page no. – 11 - 12), it has been mentioned and explained that the proposed project cannot be the baseline option as there are other existing alternatives for power generation under Northern grid.					
Acceptance and Close out by Lead Assessor:				Date: 02/12/2008	
Information Provided: Revised PDD version 03 section B.5 Information Verified: PDD is revised in particular section B.5				Verified Document Reference: PDD version 03	
Reasoning for not acceptance or acceptance and close out: DOE asked the same justification to PP in the CAR 07 alternatives of the project during its assessment of Additionality .Finally the section B.5 of the PDD was revised in that manner to take all the realistic and credible alternative as per the " tool for demonstration and assessment of additionality version 5.2". All the realistic and credible alternatives was illustrated properly in the PDD and same was eliminate as per the guidelines describe in the additionally tool version 5.2,These alternatives are checked with provided web links and evidences and found acceptable ,hence this issues was closed out.					

Date:	25/01/2008	Part:	03	Raised by:	Himanshu Thakkar
A project of such magnitude should have shown that it has followed the recommendations of the World Commission on Dams, but neither the project has shown it, nor has it followed the WCD recommendations. This is true for both the generation side as well as the transmission side of the project.					
Project Participant Response:				Date: 04/11/2008	

All the six criteria of the WCD recommendations have been attached separately. As per the PDD guidelines with limitation of pages, if all these criteria will be incorporated, the PDD will exceed the pages and hence will not satisfy the guideline for developing PDD.

Some of the highlights are:

Under Sustaining Rivers and Livelihoods and Recognising Entitlements and Sharing Benefits:

- If non-forest land is not available, compensatory afforestation is to be established on degraded forest lands, which must be twice the forest area affected or lost;

- If non-forests land is available, compensatory forest are to be raised over an area equivalent to the forests area affected or lost.

The total forests land diversion is about 51.4136 ha, among which only nominal parts of the forest will be lost due to construction activities. Total 91 trees in these species category will be cut before the submergences, and an compensatory afforestation as proposed in the Environment Management Plan (EMP), as approved by Ministry of Environment & Forest, Government of India, total 62.6 hector of degraded land will be taken for new plantation which w ill materialize development of fresh forest amounting more than 93 thousand trees in major species categorization. It is also proposed to afforest double the amount of forest land being acquired for the project. Thus, a total of (51.4136 × 2) 102.8272 ha of land can be afforested. The total cost of the afforestation works out to approximately Rs. 4.9 million. An amount of Rs. 30.33 million as estimated by the Forest Department has been earmarked for NPV of forests land to be acquired. Though the forest loss due to the reservoir submergence and other projects activities have been compensated, it is also proposed to develop greenbelt around the periphery of various project activities along with the reservoir periphery. About 1100 trees p er hectare are to be planted.

It is also proposed to afforest double the amount of forest land being acquired for the project. Thus, a total of (51.4136 × 2) 102.8272 ha of land can be afforested. The total cost of the afforestation works out to approximately Rs. 4.9 million. An amount of Rs. 30.33 million as estimated by the Forest Department has been earmarked for NPV of forests land to be acquired. Though the forest loss due to the reservoir submergence and other projects activities have been compensated, it is also proposed to develop greenbelt around the periphery of various project activities along with the reservoir periphery. About 1100 trees per hectare are to be planted.

The maintenance of the plantation area will be also be done by the project proponents. The various criteria considered while developing the greenbelt are:

- Local/nature trees growing up to 10 m or above in height with perennial plant life should be planted around the proposed project.
- Planting of trees should be undertaken in appropriate encircling rows around the project site.
- Generally fast growing trees should be planted.
- Since, the tree trunk area is normally devoid of foliage up to a height of 3 m, it may be useful to have shrubbery in front of the trees so as to give coverage to this portion.
- The cost of the plantation per hectare is estimated as Rs. 50,000. It is proposed to afforest about 5 ha of land as a part of Greenbelt Development Plan. The total cost works out approximately to 0.25 Million.

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Again, detailed explanation of the possible impacts and their consecutive mitigative measurements in the EIA & EMP for the projects.

Stakeholders' Comments covers the Gaining Public Acceptance criteria of WCD recommendations.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Annexure I: WCD Recommendation Information Verified: PDD is revised as per all six criteria of the WCD recommendation	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: DOE recognized during the validation assessment that the PP did not included the WCD recommendations (Annexure I) in the pervious version the PDD due to the CDM PDD guidelines with limitation of pages. Finally, PP demonstrated and justified all six criteria of recommendations. This was checked with WCD recommendations guidelines and found that the all six criteria have been properly addressed in the PDD and the demonstration was found towards to meet these criteria; hence this issue was closed out .satisfactory.	

Date:	25/01/2008	Part:	04	Raised by:	Himanshu Thakkar
The Environmental Impact Assessment of the project is not available in the local language to the affected people. (in EIA & Public hearing report, Pollution control board clearance)					
Project Participant Response:				Date: 04/11/2008	
There is a detailed Environmental Impact Assessment (EIA) report & Public hearing report along with Pollution Control Board Clearance. In the public hearing report the whereabouts of the project has been clearly mentioned in Hindi and English. Hard copies are provided under Annexure H. Executive Summary in Local Language has been prepared for the projects and are available and accessible in the site office for every stakeholder around the project activity. Hard copies are provided under Annexure V.					

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Annexure H and Annexure V for EIA Information Verified: EIA report and Public hearing report both are present in Hindi and English languages.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: DOE has raised the NIR 19 against the same as in the assessment of validation and found that Environmental Impact Assessment (EIA) report & Public hearing report along with Pollution Control Board Clearance is found in the Hindi and English language. It was found that the project impact is positive on the local and national environment as a whole, which has been physically verified during the site visit and found that project participants conducted environmental studies and the proposed project is not likely to have any significant negative socio-economic and environmental effect on local population during execution or during the entire operational lifetime. Hence this issue has been satisfactorily closed out.	

Date:	25/01/2008	Part:	05	Raised by:	Himanshu Thakkar
The claim that there will be no adverse downstream impacts is not supported by study of the downstream biodiversity and their relation with flows across at least two years, as normally required.					
Project Participant Response:				Date: 04/11/2008	

- The PDD of Malana II, shows that the dam site is 3 Km upstream of the Malana Village, which does not specify that the village is directly below the dam. In actual the village is not near to the channel of the Malana Nalla and situated on the top of a hillock at an elevation more than the dam FRL of 2543 meter. In case of any disaster it will be hardly having any impacts arises out of the dam as the water will be following the channel. Also it is to be noted that the dam is for diurnal storage of 4 hours, which does not allow it to store a huge amount of water which may have severe consequences at any diastral happenings.

- There is a detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigative and management measures have been proposed (In the PDD also, Page no. – 28 - 33). Hard copies are provided under Annexure H.

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: EIA & EMP reports (Annexure H) Information Verified: PDD is revised in similar manner.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: During validation, DOE founds detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigation and management measures have been proposed. This was verified with provided document EIA & EMP and found acceptable. Hence this issue was closed out satisfactorily.	

Date:	25/01/2008	Part:	06	Raised by:	Himanshu Thakkar
The claim on page 3 of the PDD that, “The direct beneficiaries of this project (apart from the project proponent) shall be the villagers of Malana village, which is a small village of about 500 families situated on a plateau of Chandrakhani mountain at a height of about 12000 ft” is totally wrong and misleading. The people of Malana village, host to one of the oldest example of local self government, will only get adverse impacts of the project, no benefits.					
Project Participant Response:				Date: 04/11/2008	

- The project will help in land price appreciation; hence will provide direct benefits to the landowners and local community.
- The proposed project will employ approximately 800 people during the construction stage and 100 people during the operation stage. Most of the labour forces, except the very skilled and technical labour, will be comprised from the local habitat. This will help in employment generation and poverty alleviation in the remote region.
- The project will facilitate development of communication infrastructure like Road, Telecommunication, Post-office, Medical Camp, Training centres etc. in the area.
- The PDD of Malana II, shows that the dam site is 3 Km upstream of the Malana Village, which does not specify that the village is directly below the dam. In actual the village is not near to the channel of the Malana Nalla and situated on the top of a hillock at an elevation more than the dam FRL of 2543 meter. In case of any disaster it will be hardly having any impacts arises out of the dam as the water will be following the channel. Also it is to be noted that the dam is for diurnal storage of 4 hours, which does not allow it to store a huge amount of water which may have severe consequences at any diastral happenings.
- There is a detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigative and management measures have been proposed (In the PDD also, Page no. – 29 - 34). Hard copies are provided under Annexure H.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: EIA & EMP reports (Annexure H) Information Verified: PDD is revised in similar manner.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The page no 29 -34 of the PDD ,version 03 mentions about the detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigation and management measures have been proposed which was found satisfactorily ;hence this issue was closed out.	

Date:	25/01/2008	Part:	07	Raised by:	Himanshu Thakkar
The claim of the PDD on page 4, “The project being a typically a peaking station will help in mitigating the substantial peaking power deficit” is wrong as majority of the claimed 428 GWHr power in 90% dependable year will be generated in no peaking mode as the project will not be working as peaking power station during summer and monsoon months when there is more water in the glacier fed river. Similarly the claim of the power from project being environment friendly is misleading, as all such projects have significant adverse impacts in the local area, all suffered by the local communities, who typically get no benefits from such projects, they are not even part of the planning or decision making processes and they are not even fully informed about the projects impacts, even full EIAs are never available in local languages. Moreover, the projects also consume a lot of materials and create adverse environmental impacts during their lifetime, which all should be calculated while calculating the potential of carbon emission reduction from such projects.					
Project Participant Response:				Date: 04/11/2008	

- As per the Detailed Project Report (DPR), the project is a peaking power station and it is also approved by the respective Ministry, Government of India. (Source: Detailed Project Report). It will generate power during monsoon, when water availability will be at its best, at the full capacity of the plant. During lean season, the plant will be optimized to generate maximum power during the peak period only as per the load curve of the Grid. So, it has been approved as peaking power station by State Government of India.

- There is a detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigative and management measures have been proposed (In the PDD also, Page no. – 29 - 34). Hard copies are provided under Annexure H. Though the environmental impacts as envisaged through the study of EIA for the project construction and operation stage in the project area, has not been substantial and alarming, an appropriate R & R plan has also proposed in a detailed manner for the affected people in the EMP.

- A Detailed version of the Stakeholders' comments is attached in Annexure G, where all the stakeholders have taken part and given their opinions.

- There is also a Public hearing report along with Pollution Control Board Clearance. In the public hearing report the whereabouts of the project has been clearly mentioned in Hindi and English. Hard copies are provided under Annexure H. Executive Summary in Local Language has been prepared for the projects and are available and accessible in the site office for every stakeholder around the project activity. Hard copies are provided under Annexure V.

- The emission of GHGs like Carbon-di-oxide (CO_2) and Methane (CH4) due to enumerations of trees and the submergences, will be many fold compensated by the afforestation activity by the project proponent (Please refer to the EIA & EMP for the proposed project attached as Annexure H). As per the Methodology ACM0002, version 07, 14th December, 2007, this part of emission has been excluded from CER calculation due to the conservative approach (Please refer to page no. – 8 in the PDD).

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: DPR , EIA & EMP (Annexure H) Information Verified: PDD is revised in similar manner.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The page no 29 - 34 of the PDD, version 03 mentions about the detailed EIA & EMP for the proposed project where the impacts have been described and the possible mitigative and management measures have been proposed which was found satisfactorily; hence this issue was closed out.	

Date:	25/01/2008	Part:	08	Raised by:	Himanshu Thakkar
The claim on p 20 of the PDD that, "The project activity is not sufficiently profitable in the absence of CDM revenues, and it faces important geological, institutional and investment barriers" is not correct. The project has been taken up many years ago, when there was no known possibility that the project would get CDM credits. Moreover, such projects are taken up without CDM credits					
Project Participant Response:					Date: 04/11/2008

- As per the start date mentioned in the PDD, CDM consideration is a valid option for this project and the supportive document for the project start date has been attached in Annexure S - E & M Contract (Volume I) as proof of the start date. This is also supported by the EB 41 report, Point 67 (source: http://cdm.unfccc.int/EB/041/eb41rep.pdf).
- Before that there has been taken a serious consideration of CDM in the Board Meeting resolution based on the geo-logical and infrastructural risks (Please refer to Annexure H for Board Meeting Resolution & Annexure W for the Geo-technical note). As per Annex 46 of EB 41 report, a table has been prepared on the basis of CDM consideration at various stages of the project conceptualisation and implementation and has been attached as Annexure T.
- A clear and transparent Investment analysis has been mentioned in the PDD attached as Annexure A, to establish why without CDM the project will be not be financially attractive.

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: • Annexure S – E & M Contract (Volume I) • Annexure H – Board Meeting Resolution • Annexure W – Geo-technical note • Annexure T- Chronology of CDM progress Information Verified: Verified requirement of Annex 46 0f EB 41	Verified Document Reference: PDD version 03

Reasoning for acceptance and close out:
PP has provided the proof of project implementation stones in line with CDM millstones as per requirement of Annex 46 of EB 41 and the same justify with evidences the delay in the project activity is due to various time consuming process to collect required clearances.

As per above arguments with evidence from the PP, the project falls into the investment analysis, which is additional towards the project activity. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe as per latest guidelines mentioned Annex 45 of EB41.Hence this issue was closed out.

Date:	25/01/2008	Part:	09	Raised by:	Himanshu Thakkar

The claim on p 20 of the PDD that, “Alternative 1: The project activity not undertaken as a CDM project As the project faces various barriers as described in the Barriers Analysis, this alternative cannot be undertaken without CDM consideration” is totally wrong. If such claims are accepted at face value, than UNFCCC process would become a laughing stock.

Project Participant Response:	Date: 04/11/2008

- The Barrier Analysis has been removed from the Project Additionality part and a clear and transparent Investment analysis has been mentioned to prove the project additionality and to establish why without CDM the project will be not be investment friendly.
- Again, to address the investment hurdle, a Board Meeting was held to consider CDM revenue in a serious manner prior to project implementation to make the project financially attractive. A transparent Investment analysis has been mentioned in the PDD attached as Annexure A.

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: Annexure A- PDD version 03 Information Verified: Section B.5 of PDD is revised.	Verified Document Reference: PDD version 03

Reasoning for not acceptance or acceptance and close out: DOE found that PP has corrected the section B.5 of PDD version 03 as the Barrier Analysis has been removed from the Project Additionality section. The project falls into the investment analysis, which is additional towards the project activity. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.

Date:	25/01/2008	Part:	10	Raised by:	Himanshu Thakkar
While calculating the power density of the project, a figure of 3.5 ha is used on page 2 of the PDD for submergence. However, the project would require a total area of 37.62 ha of land as per the EIA of the project and even the reservoir of the project would require 6.4 ha. Thus, the PDD of the project is giving wrong information, thus misleading UNFCCC and everyone.					
Project Participant Response:				Date: 04/11/2008	
The value of 3.5 ha is the area of submergence, whereas the total land area of 37.62 ha is the total area acquired for the project, which comprises of the under ground part and temporary construction part of the project implementation. The value mentioned in the EIA (Page no. – 103) comprises of both the submergence area and the temporary construction area for dam complex and will be removed after the project construction activity. Therefore, the total submergence that is taking place due to the project activity is 3.5 ha only. The value of the submergence area has further been cleared by the respective Ministry (refer to the Forest Clearance of the project). Attached in Annexure H.					
Acceptance and Close out by Lead Assessor:				Date: 02/12/2008	
Information Provided: Page No 103 of EIA report and Annexure H Information Verified: Area of submergence is 3.5 ha used in calculation of Power density				Verified Document Reference: PDD version 03	
Reasoning for acceptance and close out: The area used in the calculation of power density of project is 3.5 ha which is actually submergence area used in the proposed project activity; where the 37.62 ha area comprises of both the submergence area and the temporary construction area for dam complex which would be removed after construction and this was checked and verified with relative documental evidence during site visit and validation assessment. Hence this issue was closed out satisfactorily.					

Date:	25/01/2008	Part:	11	Raised by:	Himanshu Thakkar
Section E.2 and E.3 on page 42 of the PDD notes, for the comments of the stake holders received and how it has been responded, “The detailed of the comments received and response has been document and is attached separately.”, however, these have not been attached in the PDD. Similarly, in Annex 2, it stated about the public funding, “Sanction Letter from all the Banks is attached separately”, however these are not attached. Thus, PDD is fundamentally incomplete, besides being flawed.					
Project Participant Response:				Date: 04/11/2008	
▪ A Detailed version of the Stakeholders’ comments is attached in Annexure G. ▪ EPPL has concluded the financial closure through a Common Loan Agreement (Please refer to Annexure Q) amongst Rural Electrification Corporation (REC), State Bank of Patiala & Punjab National Bank, dated 30th August 2006.					
Acceptance and Close out by Lead Assessor:				Date: *02/12/2008*	
Information Provided: Annexure G & EPPL (Annexure Q) Information Verified: PDD is revised in section E.2 and E.3				Verified Document Reference: PDD version 03	

Reasoning for acceptance and close out: The PDD has been revised; PP has incorporated the above comment and justification in a more transparent way in the Stakeholder's consultation part and this was checked and verified with relative documental evidence during site visit and validation assessment. Hence this issue was closed out satisfactorily.

Date:	25/01/2008	Part:	12	Raised by:	Himanshu Thakkar

Having come to know that the public hearing for the project would be held on May 18 and 19, 2004, a representative from out organization visited the affected villages in early May and found that the affected people did not know anything about the project, its impacts, its EIA-EMP or about the pubic hearing slated. On informing them about their role in this process, the people of affected people wrote letters to the concerned officials in the Himachal Pradesh Pollution Control Board and Himachal Pradesh Environment Council informing that they have not been informed about the above and hence the public hearing should not be held as scheduled. We also wrote similar letters to the concerned officials, copies of which are available to us. The local newspaper also reported about this on May 5, 2004, clippings of which are also available with us. All this clearly shows that there has been no worthwhile public consultation for the project and the claims to the contrary are wrong.

Project Participant Response:	Date: 04/11/2008

Advertisements from Newspaper dated The Tribune, Chandigarh, Saturday, Feb 28, 2004 & Dainik Bhaskar, 27th Feb., 2004, Shimla & Hindustan Times, Chandigarh, 27th February, 2004 can be used as a proof for announcement of the public hearing for Malana II HEP. Advertisements and Clearances from Himachal Pradesh State Pollution Control Board are attached in Annexure I. Executive Summary in Local Language has been prepared for the projects and are available and accessible in the site office for every stakeholder around the project activity. Hard copies are provided under Annexure V.

A Detailed version of the Stakeholders' comments is attached in Annexure G, where there is a clear mention of participation of various Stakeholders and their comments.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*

Information Provided:	Verified Document Reference:
• The Tribune, Chandigarh, Saturday, Feb 28, 2004 • Dainik Bhaskar, 27th Feb., 2004, Shimla • Hindustan Times, Chandigarh, 27th February, 2004 • Annexure I ,Annexure G & Annexure V Information Verified: Advertisement for announcement of public hearing cover adequately that region.	PDD version 03

Reasoning for acceptance and close out: News paper advertisements are used as announcement of public hearing and Advertisements and Clearances from Himachal Pradesh State Pollution Control Board was checked and found that public hearing is pre-scheduled and its cover the all stakeholder consulter of that region and this was checked and verified with relative documental evidence during site visit and validation assessment. Hence this issue was closed out satisfactorily.

Date:	22/02/2008	Part:	01	Raised by:	Barbara Haya

This project is clearly non-additional and harmful to the neighbouring community. The following are grounds on which this project should be rejected: 1. The project is clearly non-additional. Government approval was granted in 2002 (http://tonto.eia.doe.gov/ftproot/forecasting/0484(2003).pdf) The MoU/PPA was signed in 2004 (http://www.ptcindia.com/list-of-projects.html) And the project is well under construction (e.g. http://www.energyinfratech.com/present_activities.html#MALANA) Given the above, especially that construction is already under way, a conservative assessment of project additionality would rule that the project is non-additional. The developers signed a PPA with the government, reach financial closure and started construction before even submitting the project for CDM approval. That is, they decided to undertake the project without knowledge that the project will be successfully registered as a CDM project. It is clear then, that the project would have gone ahead without the CDM, for in fact, it did. Proof that the developers considered the CDM in the decision to develop the project is not proof that the project required the CDM to go forward. Further, it is unrealistic to believe that the developers built the project with confident expectation that they would receive revenues through selling carbon credits. The MoU/PPA was signed, and it seems initial construction already started, before the first project was registered under the CDM and before Russia ratified the Kyoto Protocol such that the Protocol would enter into force.
Project Participant Response: Date: 04/11/2008

- The project has been awarded to Everest Power Private Limited by Himachal Pradesh Government through Memorandum of Understanding (MoU) executed on 27th May, 2002, after which the project proponent has started the required detailed investigations and survey of the project site with numerous conditions, including the development of Detailed Project Report (DPR) showing all required technical aspects of the proposed project, development of Environmental Impacts Assessment and Environmental Management Plan and only on successful completions of the all conditions and after getting all prerequisite regulatory clearances, the project can actually get started. The actual project start date is on 18th October, 2006 (Annexure S – E & M Contract (Volume I), as per the EB 41 report Point 67, (source: http://cdm.unfccc.int/EB/041/eb41rep.pdf).

- PPA:

  1. The Malana – II HEP has been taken up for development as CDM project, to avail the incentives from the sale of CERs to mitigate the weak financials of the project and make it investment friendly.
  2. The project has been planned to generate power 428 Million Units based on "90% Hydrology" data as arrived during the investigation.
  3. The PPA as executed between PTC and EPPL for sale of power generated by the Malana-II project and not for the sale of CERs, so, any commercial reason does not arise to put CDM into the PPA.
  4. The proposed sale of the CERs after successful registration of the Malana – II CDM Project and commissioning of the project, will be done through execution of an Emission Reduction Purchase Agreement (ERPA) with an entity, a compliance buyer from any Annex 1 country or a CER Trader, depends on various criteria as going to be decided by the Management of EPPL, where the CDM aspects of the project will be mentioned clearly.
  5. The PPA has been executed much before the possible registration of the Project as CDM project and related sale of CERs through an ERPA. Therefore, any mention of the CDM aspects or related CER revenue of the Project in the PPA (which is legally binding and regulated) during its execution time, is not possible with proper quantifications, and may leads to enhance further commercial risks for the Project.
  6. The mention of CDM and related CERs in the PPA will enhance PTC's (the Power Trader, who is the bulk customer of Power from the project) bargaining capacity on the long-term Power Tariff towards a more reduced price, will hamper the project financials and defeats the very decision of the project to be developed as CDM project to enhance the project financials. This could have created a situation that the project would have failed to attain the financial closure and would have not been materialized.
  7. Mention of CDM in the PPA eventually would have passed on the CDM benefits of the project to PTC, who does not have any stake in the project risks and does not hold any justifications to enjoy the CDM benefits.
  8. Central Electricity Regulatory Commission (CERC), based on whose guide line, the Power Tariff has been finalized with PTC, did not have any provision at the time of execution to incorporate the revenue generated from CDM / sale of CERs in the PPA.

- EPPL has concluded the financial closure through a Common Loan Agreement (Please refer to Annexure Q, hard copy) amongst Rural Electrification Corporation (REC), State Bank of Patiala & Punjab National Bank, dated 30th August 2006, which is based on the Subsequent Agreement to Equity Subscription Agreement (signed on 23rd October, 2003) signed on 21st March, 2005 with serious CDM consideration. Further, the main Lender Rural Electrification Corporation Limited has approved that the Common Loan Agreement has been executed considering the Subsequent Agreement dated 21st March, 2005, which has taken serious CDM consideration.
- Again, to address the investment hurdle, a Board Meeting was held to consider CDM revenue in a serious manner prior to project implementation to make the project financially attractive. A transparent Investment analysis has been mentioned in the PDD attached as Annexure A.
- As per Annex 46 of EB 41 report, a table has been prepared on the basis of CDM consideration at various stages of the project conceptualisation and implementation and has been attached as Annexure T.

Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: Annexure S – E & M Contract (Volume I), PPA and MoU Information Verified: Start date of project activity is 18th Oct 2006 as per Para 67 of EB 41 and Chorology of CDM progress as per Annex 46 EB 41.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: DOE recognized that previous version of the PDD was not reflecting the serious CDM consideration at the time of project installation during validation and same was asked to the PP to demonstrate the start date of project activity as per the Para 67 of EB 41 .The PP replied that as actual start date of project activity is 18th Oct 2006 which is the date of contract signed for E & M work as per the "Start Date" mention in "Glossary of CDM terms" in the latest Para 67 of EB41and PDD version 03 was revised in the similar manner to give the transparent picture . Also DOE was asked the PP to provide the proof of project implementation stones in line with CDM millstones as per requirement of Annex 46 of EB 41 report during validation and the PP provided the same to justify with evidences that the delay in the project activity due to various time consuming process to collect required clearances. As per above arguments with evidence from PP the project falls into the investment analysis which is additional towards the project activity. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	02	Raised by:	Barbara Haya
I request that you carefully examine the adequacy of the stakeholder consultations. A colleague familiar with the region describes Malana thus: Malana is one of the last remaining mysteries of the Himalayas, inhabited by a fiercely independent people, who still have their own governance systems intact, with their own deity Jamlu, and a unique language which is not spoken outside the village. Reaching there has traditionally been difficult. According to the PDD Malana village is situated directly below the dam, and so will be directly impacted by the changes to the river caused by the dam as well as the dam construction.					
Project Participant Response:				Date: 04/11/2008	

- Advertisements from Newspaper dated The Tribune, Chandigarh, Saturday, Feb 28, 2004 & Dainik Bhaskar, 27th Feb., 2004, Shimla & Hindustan Times, Chandigarh, 27th February, 2004 can be used as a proof for announcement of the public hearing for Malana II HEP. Advertisements and Clearances from Himachal Pradesh State Pollution Control Board are attached in Annexure I. Executive Summary in Local Language has been prepared for the projects and are available and accessible in the site office for every stakeholder around the project activity. Hard copies are provided under Annexure V.

- A Detailed version of the Stakeholders' comments is attached in Annexure G, where there is a clear mention of participation of various Stakeholders and their comments.

- The PDD of Malana II, shows that the dam site is 3 Km upstream of the Malana Village, which does not specify that the village is directly below the dam. In actual the village is not near to the channel of the Malana Nalla and situated on the top of a hillock at an elevation more than the dam FRL of 2543 meter. In case of any disaster it will be hardly having any impacts arises out of the dam as the water will be following the channel. Also it is to be noted that the dam is for diurnal storage of 4 hours, which does not allow it to store a huge amount of water which may have severe consequences at any diastral happenings.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: • The Tribune, Chandigarh, Saturday, Feb 28, 2004 • Dainik Bhaskar, 27th Feb., 2004, Shimla • Hindustan Times, Chandigarh, 27th February, 2004 • Annexure I ,Annexure G & Annexure V Information Verified: Advertisement for announcement of public hearing cover adequately that region.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The justification provided by PP on the situation of the project activity is correct it was checked during site visit. Moreover the revised version of PDD incorporated with a detailed version of the Stakeholders' comments is attached in Annexure G, where there is a clear mention of participation of various Stakeholders and their comments and this was checked and verified with relative documental evidence during site visit and validation assessment. Hence this issue was closed out satisfactorily.	

Date:	22/02/2008	Part:	03	Raised by:	Barbara Haya

Given this, I encourage DNV to take the stakeholder consultations very seriously and check if the stakeholders' requirements have been met.

The guidelines for the stakeholder consultation requirements are minimal. But they do provide a few basic principles. The guidance is: "An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilities comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted. In this regard, project participants shall describe a project activity in a manner which allows the local stakeholders to understand the project activity..."
"Facilitating comments" requires as a minimum that that all people directly affected by a CDM project should be informed of the project and of opportunities to provide comments on the project. Enabling "local stakeholders to understand the project activity" means that the villagers must be given full information about the expected effects of the project on them in a language and means that they can understand.

Given the remoteness of the village I encourage DNV to realistically assess if the villagers were effectively made aware of the public consultations, and were provided enough information about the effects of the project and an appropriate manner. (Public hearing, newspaper advertisements for public hearing)

Project Participant Response:	Date: 04/11/2008

- The mandatory Public Hearings according to Notification No. SO-318 (E) dated 10-04-1997 issued by the Ministry of Environment & Forests, Govt. of India as a requirement for the Environmental Clearance, granted by the Ministry of Environment & Forests, Government of India, were convened by the HP State Environmental Protection & Pollution Control Board near the dam site in Ochin area in village Malana. District Kullu, (H.P.) on 18th May, 2004. Besides the common people of the project area the public hearing has been attended by experts and officials from Department of Science & Technology, Government of India, District Collector, Fisheries Department of Himachal Pradesh State Government, Himachal Pradesh State Electricity Board, Himachal Pradesh State Pollution Control Board, Group of Senior Citizens, various Gram Panchayat (village administration) members.
- A Detailed version of the Stakeholders' comments is attached in Annexure G, where there is a clear mention of participation of various Stakeholders and their comments. Advertisements from Newspaper dated The Tribune, Chandigarh, Saturday, Feb 28, 2004 & Dainik Bhaskar, 27th Feb., 2004, Shimla & Hindustan Times, Chandigarh, 27th February, 2004 can be used as a proof for announcement of the public hearing in Hindi and English languages for Malana II HEP.
- Advertisements and Clearances from Himachal Pradesh State Pollution Control Board have been attached as proofs in Annexure I.
- Detailed EIA & EMP with all the mitigative measures and Executive Summary in Local Language have been prepared for the projects and are available and accessible in the site office for every stakeholder around the project activity. Hard copies are provided under Annexure H & T.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*

Information Provided:	Verified Document Reference:
• The Tribune, Chandigarh, Saturday, Feb 28, 2004 • Dainik Bhaskar, 27th Feb., 2004, Shimla • Hindustan Times, Chandigarh, 27th February, 2004 • Annexure I ,Annexure G & Annexure V Information Verified: Advertisement for announcement of public hearing cover adequately that region.	PDD version 03

Reasoning for acceptance and close out:

The revised version of PDD incorporated with a detailed version of the Stakeholders' comments has been submitted by the PP, where there is a clear mention of participation of various Stakeholders and their comments. Hence this is was closed out satisfactorily .

Date:	22/02/2008	Part:	01	Raised by:	Naveen Sharma

Section B.5 of the PDD ¡V Additionality, Sub step 1(a):
You write that alternative 4 i.e. continuation of the current situation is the most likely alternative in the absence of the project activity. I hope you understand the meaning of the word plausible, if you don¡¦t I suggest that you read the dictionary first before you write any more PDDs. Seriously, I can¡¦t think of any other reason but a poor understanding of the English language that could have lead to such irresponsible statements that do nothing but scream about your ignorance.
I hope you know that there is something called as the Central Electricity Authority (CEA) and that CEA has a website. If you go to CEA¡¦s website, you will find that already 25,959 MW of power capacity is already under implementation in the Northern Grid. Now for a moment let us assume that you didn¡¦t know about CEA. The planning commission of India has clearly spelt out in various policy documents that the targeted capacity addition under 11th plan (upto 2012) is 100,000 MW. This has come in hundreds of news and media releases. My request to the DOE is to do a google search on this item; you can¡¦t even count the number of entries you will find.
How can you still say that no other power projects are likely to come up in the Northern grid. Are you out of your mind, I can¡¦t possibly think, why in this world would you make a statement that the most likely alternative in the absence of the project activity is the continuation of current situation (no project activity or other alternatives undertaken).
I hope by now you would have realized that your attempt, to build stories about the project¡¦s additionality, has failed. If you have even a remote understanding of the CDM rules, then you would know that your project is not additional. But looking at the quality of your work in the PDD, I think it is better that I explain this in simple terms so that all three of you (PP, Consultant and DOE) understand this clearly.
You have already discounted that alternative 2(Gas) and alternative 3(Coal) in anyway are not realistic alternatives. As you can see, alternative 4 is also not plausible. Therefore there are no alternatives that would have taken place in the absence of the project activity in other words; the project activity itself is the only plausible option. And hence the project is not additional.

Project Participant Response:	Date: 04/11/2008

- In the revised PDD (attached as Annexure A, Section B. 5, Page no. – 11 - 12), it has been mentioned and explained that the proposed project cannot be the baseline option as there are other existing alternatives for power generation under Northern grid with a proper justification of selection of Alternative 4 as a Baseline scenario.
- It has been observed from the existing policy scenario that there is a huge gap in between the planned hydro power development and actual achievement causing a substantial drop of hydro power mix in Indian grid energy (also a case in Northern grid, source: www.cea.nic.in). Again, Northern grid is dominated by thermal based (mainly coal) power project with a trend towards further increase. Therefore, as the project activity comes under Northern grid of India, the baseline scenario taken for this project is Continuation of the current situation in the Northern Grid with no project activity or alternatives undertaken and through its currently running power plants (which are mostly coal based thermal) and or by new capacity addition to the grid. The justification of the selection of the Baseline scenario has been given in the PDD attached as Annexure A (Page no. 11 – 13).
- The Alternatives have been considered based on the tool for demonstration and assessment of Additionality version 5.2, and also has been followed while eliminating the alternatives. Please refer to the revised PDD attached in Annexure A (Page – 11-13).

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*

Information Provided: Page no 11 -13 section B.5 of PDD version 03 Information Verified: Section B.5 of the PDD version is revised as per methodological tool.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The section B.5 of PDD is revised as per “tool for demonstration and assessment of Additionality version 5.2” which has been incorporated with above comment. The project falls into the investment analysis which is additional towards the project activity. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	02	Raised by:	Naveen Sharma
Section B.5 of the PDD ¡V Additionality, sub step 3 ¡V Barrier Analysis: Investment Barrier ¡V High Capital Cost: You have written that the project faces investment barriers on account of its high capital cost as compared to thermal power project. Now what can one say about this enlightening statement? Don¡¦t you know that thermal generation has a fuel cost component to it whereas hydro projects don¡¦t. It is common knowledge that hydro is the cheapest source of power, the levelised cost of hydro will always be substantially lower than that of thermal projects. I demand that you carry out levelised tariff calculation of all you projects and web-host it for public comments. I know you will find some pretext of not doing it, because you know that if you do a levelised cost calculation, it would be clear that the project itself will be the most financially attractive. All your stories and lies would fall apart.					

Project Participant Response:	Date: 04/11/2008
▪ As per the EB 41 report on “Guidance on Investment Analysis”, for the project activity, a Benchmark Analysis needs to be taken into consideration to prove the additionality. Following this guidance, a clear and transparent Investment analysis has been mentioned to prove the project additionality in the PDD attached as Annexure A. ▪ As per the latest version of the Additionality tool, Version 5.2, If the additionality has been established using the investment analysis, then, barrier analysis is optional. In case of the Malana II HEP, a transparent Investment analysis has been mentioned in the PDD attached as Annexure A. Therefore, the barrier analysis has been removed from the revised PDD for simplification.	

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Additionality tool, Version 5.2 Information Verified: The section B.5 of the PDD version 03 is revised.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The section B.5 of the PDD version 03 is incorporated with the latest version of the Additionality tool, Version 5.2 and “Guidance on Investment Analysis” of EB41. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	03	Raised by:	Naveen Sharma

Investment Barrier ¡V Low Return on Investment:
You have mentioned that you have a project IRR of 12.5%, and then you go and compare the same with the CERC 14% which is the benchmark number for Equity IRR. Is it because you don¡¦t understand the difference between project IRR and equity IRR? I can¡¦t possibly comprehend that someone who has made Rs. 600 crores investment doesn¡¦t even know the difference between project IRR and equity IRR. Assuming an interest rate of 9 -10%, you will have an equity IRR which would be well over 14% (no matter how much window dressing is done). There is no way this project can be termed as additional. In view of this, one can¡¦t help but think that this is a deliberate attempt on part of the Project Proponent to hide the true profitability of the project and wangle additionality arguments or you have a completely incompetent consultant. Now how you would like to respond to that is up to you.

I would also request that the project proponent web host the financial model and loan application documents that were used to secure financing for the project. Lets see, if you are telling the same story to every one.

Project Participant Response:	Date: 04/11/2008

- The PDD has been modified as per the latest EB report (EB 41), where the Commercial Lending Rate has been taken as the benchmark for the project activity and has been compared with the project IRR to establish that the project will not be financially attractive without the CDM revenue. (Please refer to page no. – 14 in the Revised PDD attached as Annexure A).
- The financial Model & the Common Loan Agreement has also been attached as Annexure L and Annexure Q (in hard Copies).

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Annexure L and Annexure Q Information Verified: Commercial Lending Ratio (CLR) is taken as 11.25% for PNB and 10.50% for SBOP for IRR calculation	Verified Document Reference: PDD version 03

Reasoning for acceptance and close out:

DOE has raised the CAR 07, CAR 09 and CAR 10 in Annex 3 of this report (UK.CDM.VAL.Findings). For demonstrating and justifying the Additionality, Alternatives to the project and Barrier analysis which also includes issue related to the project IRR without CDM and benchmark value. After discussion with DOE, the PP modified the PDD as per EB 41 report justifying that the Project IRR and the Equity IRR of Malana II HEP is 10.41 % and 8.74 % respectively without considering the revenue from the sale of CERs, which is lower than the selected benchmark, i.e. Commercial Lending Rate (CLR), as recorded in the Common Loan Agreement of the project activity (page no -106). The Commercial Lending Rate (CLR) is 11.25% of Punjab National Bank, 10.5% of State Bank of Patiala (SBoP) and 10.5% of Rural Electrification Corporation limited (REC). Considering the most conservative CLR of 10.5%, i.e. CLR of SBoP and REC, which is also conservative in comparison to the prevailing PLR, has been taken as Benchmark for Investment Analysis. Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.

Date:	22/02/2008	Part:	04	Raised by:	Naveen Sharma

Most important: Your project is going to be a peaking power station that will sell to PTC. In the northern region, peak electricity has been traded at more than Rs. 10 per unit. Tell me any other project in India or in the world that would get this kind of tariff. ¡§And you still call your project as additional¡¨. Note to DOE: Please web host the PPA signed with PTC for public review.

Project Participant Response:	Date: 04/11/2008

- PPA:

1. The Malana – II HEP has been taken up for development as CDM project, to avail the incentives from the sale of CERs to mitigate the weak financials of the project and make it investment friendly.
2. The project has been planned to generate power 428 Million Units based on “90% Hydrology” data as arrived during the investigation.
3. The PPA as executed between PTC and EPPL for sale of power generated by the Malana-II project and not for the sale of CERs, so, any commercial reason does not arise to put CDM into the PPA.
4. The proposed sale of the CERs after successful registration of the Malana – II CDM Project and commissioning of the project, will be done through execution of an Emission Reduction Purchase Agreement (ERPA) with an entity, a compliance buyer from any Annex 1 country or a CER Trader, depends on various criteria as going to be decided by the Management of EPPL, where the CDM aspects of the project will be mentioned clearly.
5. The PPA has been executed much before the possible registration of the Project as CDM project and related sale of CERs through an ERPA. Therefore, any mention of the CDM aspects or related CER revenue of the Project in the PPA (which is legally binding and regulated) during its execution time, is not possible with proper quantifications, and may leads to enhance further commercial risks for the Project.
6. The mention of CDM and related CERs in the PPA will enhance PTC’s (the Power Trader, who is the bulk customer of Power from the project) bargaining capacity on the long-term Power Tariff towards a more reduced price, will hamper the project financials and defeats the very decision of the project to be developed as CDM project to enhance the project financials. This could have created a situation that the project would have failed to attain the financial closure and would have not been materialized.
7. Mention of CDM in the PPA eventually would have passed on the CDM benefits of the project to PTC, who does not have any stake in the project risks and does not hold any justifications to enjoy the CDM benefits.
8. Central Electricity Regulatory Commission (CERC), based on whose guide line, the Power Tariff has been finalized with PTC, did not have any provision at the time of execution to incorporate the revenue generated from CDM / sale of CERs in the PPA.

- The PPA also establishes that the project will sell power to PTC through long term fixed tariff contract at INR. 2.31 and not through any Merchant Tariff rate, so there is no possibility of getting any extra or enhanced price of electricity sold during the peak hours.

- Again, the PPA of the Malana - II HEP does not address/accommodate the following risks:

    - PPA of Malana - II pays tariff which is Minimum of CERC Tariff + Tariff credit and Capped tariff. Under no scenario the project company would recover anything more than CERC tariff. Also, under the present tariff conditions the project company would not recover any amount more than the capped tariff. This may lead to shortfall in cash for maintaining the DSCR requirements, delay in creating the Debt service reserve during the repayment period and also investors of the project will have a long gestation before getting any dividends.

    - Capped tariff is calculated considering the overall completion cost of INR 598 crores with INR 558 crores as hard cost. With the increased interest rates the IDC component of the project is expected to go up and the capped tariff would not be increased to accommodate the same. Also, the PPA does not accommodate any increase in hard cost which may occur on account of any increase in tax rates or any geological surprises or change in scope of works.

    - Any increase or decrease in costs on account of change in law is accommodated in the CERC Tariff but capped tariff will not be modified. At the time of signing of the PPA the MAT rate applicable was 8% and the education CESS was 2%. As on date the MAT rate has been increased to 10% and the Education cess has been increased to 3%.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: PP has been submitted the ERPA ,PPA & PTC. Information Verified: Explanation given by PP is found satisfactory.	Verified Document Reference: PDD version 03

Reasoning for acceptance and close out:

PP has been submitted the PPA signed with electricity authority. This PPA was checked and found that the project will sell power to PTC through long term fixed tariff contract at INR. 2.31, so there is no possibility of getting any extra or enhanced price of electricity sold during the peak hours and also the PPA has mentioned that the PP has pays tariff which is Minimum of CERC Tariff + Tariff credit and Capped tariff. Capped tariff was checked and found that it is calculated with the considering the overall completion cost of INR 598 crores with INR 558 crores as hard cost. However the increased interest rates the IDC component of the project is expected to go up and the capped tariff would not be increased to accommodate the same. Also, the PPA does not accommodate any increase in hard cost which may occur on account of any increase in tax rates or any geological surprises or change in scope of works. This was found acceptable and satisfactory.

And also the project falls into the investment analysis which is additional towards the project activity. This was checked and found acceptable .Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.

Date:	22/02/2008	Part:	05	Raised by:	Naveen Sharma

Investment Barrier ¡V Geological risk: If your point is that to counter geological risk you had to reinforce the civil structure which resulted in extra costs, this argument is completely irrelevant because you have already captured the cost impact in the investment analysis (Project IRR calculations). How can you take credit for the same argument twice? Please think before writing. If your point is that the project becomes risky because of the geological risk, please try to understand that Barriers should be prohibitive and should be such that they get alleviated by CDM benefits. How do you think CDM benefits will alleviate the risks of earthquake? Similarly, for all other additional items that you write as reasons for excess project cost, please understand that you have already factored the same in Investment analysis and therefore these are not relevant as barriers any more.

Project Participant Response:	Date: 04/11/2008

- As per the latest version of the Additionality tool, Version 5.2, If the additionality has been established using the investment analysis, then, barrier analysis is optional. In case of the Malana II HEP, a transparent Investment analysis has been mentioned in the PDD attached as Annexure A. Therefore, the barrier analysis has been removed from the revised PDD for simplification, so that any double count does not take place.
- Though the Barrier Analysis has been removed from the Project Additionality part, the justification of the project becomes capital intensive due to being in the Seismic zone IV, which has enhanced the project cost due to earthquake risk mitigation measures at design and construction phases of the civil structures. Further, the Geo-technical Note (has been attached as Annexure W) on the proposed project establishes the complexity of the project to become capital intensive.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Additionality tool, Version 5.2 & Annexure W Information Verified: PDD is revised.	Verified Document Reference: PDD version 03
Reasoning for acceptance and close out: The section B.5 of the PDD version 03 is incorporated with the latest version of the Additionality tool, Version 5.2 and “Guidance on Investment Analysis” of EB41. Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	06	Raised by:	Naveen Sharma

Policy related barriers - Evaluation of prevailing practice in Indian Power Planning: You have written that the share of hydro in total generation has been declining over the period of last 40 years. You have also written that private sector participation in Hydro is less than half of what it is in thermal power. Please keep a cool head and think, how is Malana Power 2 facing barrier because the share of hydro is declining for the last 40 years. Do you think there is some umbilical cord between your project and these statistics? Other policy related barriers: The remaining part of the barrier section is an unnecessarily long rhetoric about power sector policies that have little relevance for the project. The approach here seems to be to divert the reader¡¦s attention from real issues (in the PDD) by giving unnecessarily long write ups about generic developments in the power sector. As any one can see, there is absolutely no mention about any particular policy barrier that would have prevented the project activity from happening. I am running out of patience in trying to point out these basic mistakes to you. Instead of writing unnecessary data you would better if you try to find a barrier for your project. Unfortunately from what you have written, there appears to be none.	
Project Participant Response:	Date: 04/11/2008
▪ As per the latest version of the Additionality tool, Version 5.2, If the additionality has been established using the investment analysis, then, barrier analysis is optional. In case of the Malana II HEP, a transparent Investment analysis has been mentioned in the PDD attached as Annexure A. Therefore, the barrier analysis has been removed from the revised PDD for simplification. ▪ As per the Additionality tool version 5.2, there is a requirement of addressing the barrier due to the prevailing practices and policies by Government. As there is an emphasis on coal based power projects as per the existing regulatory policies, hence, maximum numbers of present and future capacity addition will be possibly based on coal in the Northern region. It is difficult to attract sufficient private investments in large scale hydro projects (which are not a common practice) due to the existing regulatory policies and various risks associated with hydro power development based on perennial rivers. EPPL, being a private power project developer has invested in the Project considering the CDM aspects. In case of our project also, the financial closure through a Common Loan Agreement (Please refer to Annexure Q, hard copy) has been achieved, based on the Subsequent Agreement to Equity Subscription Agreement signed on 21st March, 2005, which has taken serious CDM consideration. Further, the main Lender Rural Electrification Corporation Limited has approved that the Common Loan Agreement has been executed considering the Subsequent Agreement dated 21st March, 2005, which has considered CDM in a serious manner.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Additionality tool, Version 5.2 & Annexure Q Information Verified:	Verified Document Reference: PDD version 03
Reasoning for not acceptance or acceptance and close out: PP has explained the Additionality as per the latest tool of Additionality and the same is found satisfactory. Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	07	Raised by:	Naveen Sharma
Common Practice test: Your project is located in Himachal Pradesh. The entire electricity generation in Himachal Pradesh is hydro; there is not even a single thermal plant in this state. Still you proclaim that your project is not a common practice.					
Project Participant Response:				Date: 04/11/2008	

- Common Practice test:
  - It has been mentioned couple of times in the PDD that the proposed project is a large project developed by the private players and the private sector participation in Hydro is very low in the Northern Grid. Also, the Northern grid is dominated by thermal power projects with a further planning of more thermal power projects for power generation. It has been explained in the PDD that the other project existing in the region is not facing some of the major risks associated with the project activity and are having advantages like higher head, lesser cost/ MW generation. Therefore, it can be concluded that as per the latest version of the Additionality tool – Version 5.2, a project like this one cannot be the common practice in the Northern region grid. Please refer to the Annexure R.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Revised PDD. Information Verified: Common practices analysis incorporated in the revised PDD	Verified Document Reference: PDD version 03
Reasoning for not acceptance or acceptance and close out: PP has provided the revised PDD wherein PP has demonstrated the common practice comparing to other activities similar to the proposed project activity. This was checked and found acceptable .Please refer Step 4 describe under section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.	

Date:	22/02/2008	Part:	08	Raised by:	Naveen Sharma
What I would also want to know is that you are located on the same river as Malana-1 hydro power project. When Malana-1 could take place without CDM how come your project (being on the same location, same river, same state and under the same regulatory regime) needs CDM to survive.					

Project Participant Response:	Date: 04/11/2008
Source: http://www.malanapower.com/projects.aspx As per the above mentioned source, construction of the Malana I power project started in January 1999 and commissioned during July 2001, much before the Kyoto Protocol and CDM came into force. Hence Malana - 1 is not eligible for CDM. Malana I HEP is a Merchant Hydro project with project cost less than INR. 3.75 Crores per MW. The project cost of Malana II hydro electric project is 5.98 Crores / MW (Reference: Common Loan Agreement, submitted as hard copy to SGS)	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: http://www.malanapower.com/projects.aspx Information Verified: Malan I HEP is also a Merchant Hydro project less than Rs. 3.75 crore per MW, as against a normal cost of Rs. 5 crore per MW	Verified Document Reference: PDD version 03

Reasoning for acceptance and close out:
DOE found that Malan I HEP is also a Merchant Hydro project less than Rs. 3.75 crore per MW, as against a normal cost of Rs. 5 crore per MW which is mentioned in the above website .Moreover argument of PP for the Malan – II HEP is found to be correct. Please refer section 4.4 of the validation report for further reference wherein the demonstration of additionally has been describe .Hence this issue was closed out.

6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
18/03/2008	Mr. Dile Ram	Pradhan, Gram Panchayat, Malana Village	Stake holder Consultation
18/03/2008	Mr. Budh Ram	Villagers, Malana Village	Stake holder Consultation
18/03/2008	Mr. Chande Ram	Villagers, Malana Village	Stake holder Consultation
18/03/2008	Mr. G.S. Raju	Project In – Charge	About the Additionality and baseline
19/03/2008	Mr. MP Bhaskar	Member, CDM Project Supporting Team	About the Project Description and ISHC
19/03/2008	Mr. Ashwani Thakur	Member, CDM Project Supporting Team	About the Project Description, Additionality and baseline
19/03/2008	Mr. Sandip Saha	Member, CDM Project Supporting Team	About the data Achieving, QA/QC and Monitoring Plan

7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

/1/	Modalities of Communication dated 10th July 2009
/2/	Host Country Approval Dated 27th December 2007
/3/	PDD version 02, dated 28th December, 2007 (Web hosted)
/4/	PDD version 11, dated 28th October 2009 (Final PDD) PDD version 10,dated 7th March 2009
/5/	IRR calculation sheet version 02 , dated 07th March 2009
/6/	IRR calculation sheet version 01, dated 28th December 2007

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

/7/	ACM0002 version 07
/8/	UNFCCC website (http://cdm.unfccc.int/index.html)
/9/	Media for Stakeholder Consultation
/10/	Emission Reduction Calculation Sheet
/11/	Proof for Starting date
/12/	MoM for Stakeholder Consultation
/13/	EIA Report
/14/	EPA Report
/15/	Power Purchase Agreement dated 25-07-2005
/16/	Ministry of Petroleum and Natural gas (http://petroleum.nic.in/ng.htm).
/17/	CEA database (http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)
/18/	WPD Map (http://www.cwet.tn.nic.in/html/departments_wpdmap.html)
/19/	Reserve Bank of India; (http://www.rbi.org.in/Scripts/WSSViewDetail.aspx?TYPE=Section&PARAM1=4)
/20/	Techno Economic Clearance (TEC) & Detailed Project Report (DPR)
/21/	Common Loan Agreement dated 30-08-2006
/22/	E & M Contract (Volume I) dated 18-08-2006
/23/	Certificate of Incorporation dated 04-10-2001
/24/	One pager from Annual report, 2007-08
/25/	REC Letter on consideration of Equity Subscription Agreement dated 24-08-2007
/26/	Equity Subscription Agreement dated 03-10-2003
/27/	Subsequent Agreement (SA) between EPPL & GIPL
/28/	Geo-technical Note
/29/	Documentary Evidence from Power Trading Corporation (PTC)
/30/	Project Cost Break Up
/31/	Himachal Pradesh State Pollution Control Board (HPSPCB) Clearance
/32/	Purchase Orders (P.O.) with Technical Specifications

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A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document for **"100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)" at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited.**
It serves as a "**reality check**" on the project that is completed by a local assessor from SGS India

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
Letter of approval from Host Country (India) by Designated National Authority (DNA).	The host country Approval letter dated 27th December 2007 reference number 4/20/2007-CCC has been submitted the same was checked and found acceptable	Host country Approval letter Provided by Government of India ,Ministry of Environment and forests.(MoEF) And interview with PP	The CAR01 was raised and closed. This was discuss in section 4 of AR6
A letter on the modalities of communication (MoC) stating the focal point for this project activity.	The modalities of communication (MoC) were provided by PP and same was checked and found satisfactory.	MoC and PDD.,and interview with PP	No issues
The purchase order and technical specifications for the equipments involved in project activity.	The E& M contract was provided by PP during site visit and found satisfactory.	PDD and technical specifications for the equipments provided by manufacture. And interview with PP	NIR03 was raised and Closed. This was discuss in section 4 of AR6

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
The Operational lifetime of equipments involved in project activity.	The Operational lifetime of equipments was checked with technical description provided by manufacture.	PDD and technical description provided by manufacture And interview with PP	No issues
PP needs to provide • Project implementation stones in line with CDM milestones. • Proof of Serious CDM consideration as per EB 41 Annex 46.	Project implementation chronology was provided by PP. and same was checked and found satisfactory. Serious CDM consideration as per EB 41 Annex 46.was discuss with PP. And same was checked and found satisfactory	PDD and Project implementation chronology And interview with PP	NIR 04 was raised and closed.
Referring to the PDD no public funding is involved in the project activity. It will be checked from the financials of the project activity during the site visit. . Kindly provide the evidence if public funding is involve	This was discuss with PP and no public funding involve in this project activity and cross-checked with financial sheet of project activity and found satisfactory.	PDD and Financial data provided by PP And interview with PP	No issues

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
and does not result in a diversion of official development assistance			
The project participant needs to provide emission reduction sheet along with assumption.	The emission reduction sheet was provided by PP and same was checked and found satisfactory.	Emission reduction sheet And interview with PP	CAR11 was raised and closed. This was discuss in section 4 of AR6
Please provide the IRR calculation sheet along with all assumption. Also provide the documentary evidences for assumption used in the IRR calculation sheet.	The IRR calculation sheet was provided by PP and same was checked and found satisfactory.	IRR calculation sheet .And interview with PP	CAR09 was raised and closed. This was discuss in section 4 of AR6
Evidences for the additionality proof	EPA report was submitted by PP.	EPA report was checked and found satisfactory.	No issues
The project participant needs to submit the EIA report.	The EIA report was provided by PP and same was discussed during site Visit and found satisfactory.	EIA report and interview with PP	NIR19 was raised and closed. This was discuss in section 4 of AR6
As PDD Version 02 mentions start date of project activity is 1st January 2006.	The PP was provided E & M contract dated 18th October 2006 and same was checked during site visit and found satisfactory.	E & M contract dated 18th October 2006 and interview with PP, hence the start date of the project activity as 18th October 2006 is accepted to DOE as per the guidance of EB 41 para 67.	No issuse
Please provide the Plant layout and photograph of	The project boundary was checked in the site visit and found satisfactory	The Plant layout and photograph of plant location	NIR06 was raised and closed. This was discuss

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
plant location covering project activity area.		interview with PP	in section 4 of AR6
Please provide The evidences for the stakeholders consulted. The copy of invitation latter sent. The minutes of meeting for the stakeholders consulted.	The same was discus with PP and all document are provide were checked and found satisfactory.	PPD and interview with PP	NIR20 and CAR21 was raised and closed. This was discuss in section 4 of AR6

A.2 Annex 2: Validation Protocol

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

Requirement	Reference	Comments	Conclusion
1. All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	Marrakech Accords, CDM Modalities §30	Project is unilateral and India has ratified the protocol on 26 August 2002 and is allowed to participate. The web link is *http://maindb.unfccc.int/public/country.pl?country=IN*	Y
2. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	Marrakech Accords, CDM Modalities §29 and §30	No Annex 1 party has been selected yet. Project can proceed as Unilateral project.	Y
3. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	Marrakech Accords, CDM Modalities §29 and §30 Kyoto Protocol Art. 12.2, Marrakech Accords, CDM Modalities §40a	Letter of approval from Host Country (India) Designated National Authority (DNA) to be submitted by the project proponent	CAR 01 CAR01 was closed out Please refer Annex 03

Requirement	Reference	Comments	Conclusion
4. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	Yes, the project was listed on UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/IGIXOH2HCUH72OAA7ICZWTUULS9H8V/view.html from 24 Jan 08 - 22 Feb 08 which was linked to the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=435 Number of comments received during web-hosting period - 06	Y
5. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	The PDD is as per the UNFCCC CDM-PDD version 3.1 format.	Y
6. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form	A letter on the modalities of communication (MoC) stating the focal point for this project activity.	Annex1
7. For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?		Not applicable	Not applicable

Table 2 PDD

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A. General Description of Project Activity					
A.1. Project Title					
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	01 & 03	DR	The title of the project activity mentioned is "100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)" at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited." The title of project activity has checked with the UNFCCC web site. http://cdm.unfccc.int/Projects/Validation/DB/IGIXOH2HCUH72OAA7ICZWTUULS9H8V/view.html This is unique.	Y	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	01	DR	Yes; The PDD dated 28/12/2007 which was web hosted for International stakeholder consultation mentions Version 02.	Y	Y
A.1.3. Is this in consistency with the time line of the project's history?	01	DR	The start date of the project activity is 18/10/2006 and the PDD version 02 is dated 28/12/2007.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.2. Description of the Project Activity					
A.2.1. Is the description delivering a transparent overview of the project activities?	01	DR	The project site is located at Latitude – between 3205'06" N to 32002'15" N Longitude – between 77016'51" E to 77015'26"E.	Y	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	01	DR	Evidence for allow the implementation of the project are found to be correct.	Y	Y
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?	01	DR	Yes, all information provided is consistent with details provided in further chapters of the PDD.	Y	Y
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	01	DR	The project participant of proposed activity is Everest Power Private Limited (EPPL) and Hosting country is India .Same is applied in the table A.3 of PDD version 02.	Y	Y
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	01	DR	The contact details of project participant mention in Annex 01 of the PDD version 02. The name of project participant mention in the table A.3 is match with name Annex 01.	Y	Y
A.4. Technical Description of the Project Activity					
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude of the site indicated (decimal points)	01	DR	The section A.4.1.4 is not as per the guidelines to complete the CDM PDD, kindly clarify	CAR 02	CAR 02 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.2. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	01	SV	Evidence for allow the implementation of the project at that site needs to be checked during the site visit.	Site Visit	Y
A.4.3. Is the category(ies) of the project activity correctly identified?	01	DR	The proposed project activity fall into the sectorial scope 1 and ACM0002 version 07, 14 December 2007 ““Consolidated baseline methodology for grid-connected electricity generation from renewable sources” has been applied.	Y	Y
A.4.4. Does the project design engineering reflect current good practices?	01	SV	Project implementation and actual condition would be check during the site visit.	Site Visit	Y
A.4.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	01	DR	The Malana – II Hydro Electric Power Project is a Run-of-the-river Hydro Power project, located in the Malana Nallah, a tributary of Parbati River in the Beas Basin, near the Malana village of Kullu District, State of Himachal Pradesh, India. This Project envisages an exploitation of hydro power potential in the upper reaches of Malana Nallah, to produce environmently friendly power with Run-of-the-river technology to be fed up in the Northern Regional Grid of India.	Y	Y
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	01	SV	Project implementation and actual condition would be check during the site visit.	Site Visit	Y
A.4.7. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	01	SV	Same would be checked with Technical Specifications.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	01	DR	Purchase orders for the project activity is required to be submitted to cross-check the technical specifications. Evidence is required that the project technology would not be substituted during the crediting period.	NIR 03	NIR 03 was closed. Y
A.4.9. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	01	DR	Extensive training is not required as mentioned in the PDD version 02 and has trained staff for operation and maintenance.	Y	Y
A.4.10. Does the project make provisions for meeting training and maintenance needs?	01	SV	The PDD version 02 is mention about provisions for training and maintenance involve in the project activity and same need to be discus during site visit.	Site Visit	Y
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	01	DR	The project is still under construction stage and schedule for the same is not available. The same is required to be described. Kindly clarify the same.	NIR 04	NIR 04 was closed. Y
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	01	DR	The table mention in section A.4.4 & B.6.4 of the PDD version 02 is correctly applied.	Y	Y
A.5. Public Funding					
A.5.1. Does the information on public funding provided conform with the actual situation or planning as presented by the project participants?	01	DR	The loan documents are required to be submitted, also evidence is required that No ODA was used in the project activity.	CAR 05	CAR 05 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.5.2. Is all information provided consist with details provided by further chapters of the PDD (in particular annex 2)?	01	DR	Pending due to closure of CAR 05.	Pending CAR 05	CAR 05 was closed. Y
A.5.3. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a diversion of official development assistance	01	DR	Project is a unilateral project.	Y	Y
B. Baseline and Monitoring Methodology					
B.1. Choice and Applicability					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	01 & 02	DR	The proposed project activity is applied latest version 07 of methodology ACM 0002 EB 36.	Y	Y
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	01 & 02	DR	There is only ACM 0002 methodology is applied for this proposed activity.	Y	Y
B.1.3. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	01 & 02	DR	As per the methodology ACM0002 version 07, this methodology is applicable to grid-connected renewable power generation project activities under the following conditions: • Applies to electricity capacity additions from: • Run-of-river hydro power plants; hydro power projects with existing reservoirs where the volume of the reservoir is not increased. Hence the project activity meets all the applicability criteria as mentioned in the methodology ACM0002 version 07..	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.2. Project Boundary					
B.2.1. Are all emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	01 & 02	DR	The project boundary is described as the physical boundary of the plant, the gases included in the methodology have not described in the PDD, kindly clarify.	NIR 06	NIR 06 was closed. Y
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with EB guidance and the underlying methodology?	01 & 02	DR	The baseline mentioned is continuation of generation in the Northern Regional Grid of India at the current emission levels.	Y	Y
B.2.3. Are the project's spatial boundaries (geographical) and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	01 & 02	DR	The project boundary is clearly defined; the same needs to be cross-checked during the site visit.	Site Visit	Y
B.3. Identification of the Baseline Scenario					
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?	01 & 02	DR	For the alternatives described in the PDD, proper references are required. Alternatives to the project are not clear as why only the project site has been considered for an alternative plant and the project boundary for the same. Clarification is required.	CAR 07	CAR 07 was closed. Y
B.3.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??	01 & 02	DR	Pending due to Closure of CAR 07	Pending CAR 07	CAR 07 was closed. Y
B.3.3. Is the choice of the baseline compatible with the available data?	01 & 02	DR	Pending due to Closure of CAR 07	Pending CAR 07	CAR 07 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	01 & 02	SV	Same need to be check during site visit.	Site visit	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	01 & 02	DR	Pending due to Closure of CAR 07	Pending CAR 07	CAR 07 was closed. Y
B.4. Additionality					
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as given by the methodology and by following all the required steps?	01 & 02	DR	Yes PDD version 02 refers the additionality tool.	Y	Y
B.4.2. In case of using the additionality tool: Is the 'Additionality Tool' used in the PDD latest version? If an earlier version has been used, do the changes impact the discussion in the PDD? Are all steps followed in a transparent manner?	01 & 02	DR	The additionality tool referred is not the latest available, kindly clarify	CAR 08	CAR 08 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project If the project has started before the validation is it discussed how the CDM was taken into account in the decision to go ahead with the project activity	01& 02	DR	The start date for the project activity has been considered as 18th October 2006; evidence is required for the same. Also the decision to proceed with the project was taken long before, thus CDM consideration proof from a third party is required to be submitted. The IRR for the project activity has been discussed; evidence for the same is required to be submitted. Also clarification is required as why project IRR has been compared to equity IRR. Kindly clarify the sensitivity analysis for the project activity. The common practice analysis carried out mentions about the scenario in 2007 and not during the planning of the project activity, kindly clarify.	CAR 09	CAR 09 was closed. Y
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios B.4.5. Do the identified alternative include technologies and practices that include outputs (e.g) cement or services comparable with the proposed CDM project activity	01 & 02	DR	Pending due to closure of CAR 09.	Pending CAR 09	CAR 09 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.6. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?	01 & 02	DR	Pending due to closure of CAR 09.	Pending CAR 09	CAR 09 was closed. Y
B.4.7. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	01 & 02	DR	Barrier analysis is not carried out as per the tool for demonstration and assessment of additionality. It is not discussed that how the barrier would have preventing the implementation of at least one of the alternatives discussed. Also how CDM overcomes the barriers is not discussed. Clarification is required.	CAR 10	CAR 10 was closed. Y
B.4.8. Has it been shown that the project is not common practice?	01 & 02	DR	Pending due to closure of CAR 10	Pending CAR 10	CAR 10 was closed. Y
B.4.9. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	01 & 02	DR	Pending due to closure of CAR 10	Pending CAR 10	CAR 10 was closed. Y
B.5. Application of the Baseline Methodology					
B.5.1. Has the approved methodology been applied correctly for determining **baseline emissions**?	01 & 02	DR	The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent.	CAR 11	CAR 11 was closed. Y
B.5.2. Has the approved methodology been applied correctly for determining **project emissions**?	01 & 02	DR	The project emissions are taken as zero and this is in accordance with the methodology ACM0002.version 07.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5.3. Has the approved methodology been applied correctly for determining **leakage**?	01 & 02	DR	It is mentioned in PDD that there is no leakage due to project activity and it is as per the methodology.	Y	Y
B.5.4. Where applicable, has the approved methodology been applied correctly for the **direct calculation of emission reductions**	01 & 02	DR	Pending due to closure of CAR 11	Pending CAR 11	CAR 11 was closed. Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct	01 & 02	DR	Section B.4 of the PDD version 02 metion that the Grid emission factor is calculated base on the Simple Operation margin as per the ACM0002 version 07.	Y	Y
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	01 & 02	DR	No uncertainties in the GHG emissions estimation.	Y	Y
B.6. Ex-ante Data and Parameters Used					
B.6.1. Are the data provided in compliance with the methodology?	01 & 02	DR	The excel sheet for calculation of emission reductions needs to be submitted by PP. Evidences proof are required for all the assumptions used in calculation and same needs to be checked during the site visit.	Pending CAR 11	CAR 11 was closed. Y
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	01 & 02	SV	Same need to be check during site visit .	Site visit	Y
B.6.3. Is the vintage of the baseline data correct?	01 & 02	SV	Baseline used most recent and this need to be check during site visit	Site visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining **emission reductions**?	01 & 02	DR	The equations are correctly applied for calculation of Baseline emission. .	Y	Y
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	01 & 02	SV	Same need to be check during site visit.	Site Visit	Y
B.7.3. Have conservative assumptions been used to calculate emission reductions?	01 & 02	SV	The conservative assumptions are needs to be checked with the plant data during the site visit.	Site Visit	Y
B.7.4. Is the projection based on provable input parameter?	01 & 02	SV	To be checked during the site visit.	Site Visit	Y
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	01 & 02	SV	Same need to be check during site visit.	Site Visit	Y
B.7.6. Is the calculation of the emission reduction correct?	01 & 02	DR	Kindly provide the excel for emission reduction calculation	LAC	Y
B.8. Emission Reductions					
B.8.1. Will the project result in fewer GHG emissions than the baseline scenario?	01 & 02	DR	The PDD mentions the average emission reduction of $345,622$ $tCO2e$ per annum which will happen on account of installation of Run-of-the-river Hydro Power project.	Y	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	01 & 02	DR	The table under section B.6.4 has not been applied correctly as per the guidelines to complete the CDM PDD.	CAR 12	CAR 12 was closed. Y

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Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.8.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	01 & 02	DR	Pending due to closure of CAR 12	Pending CAR 12	CAR 12 was closed. Y
B.9. Monitoring Methodology					
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameter to be monitored and further information provided by the PDD? Are all parameters and data that is available at validation consistent with the approved methodology	01 & 02	DR	The monitoring parameters mentioned under the section B.7are not as per the monitoring methodology of ACM0002, kindly clarify.	CAR 13	CAR 13 was closed. Y
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	01 & 02	DR	Pending due to closure of CAR 13	Pending CAR 13	CAR 13 was closed. Y
B.10. Data and Parameters Monitored					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	01	DR	The data archiving system has not been discussed for the parameters to be monitored in the PDD. Kindly clarify	CAR 14	CAR 14 was closed. Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied?	01	DR	Not applicable	N/A	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	01	DR	Not applicable	N/A	Y

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Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.10.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	01	DR	Pending due to closure of CAR 14	Pending CAR 14	CAR 14 was closed. Y
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	01	DR	Pending due to closure of CAR 14	Pending CAR 14	CAR 14 was closed. Y
B.10.6. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	01	SV	Monitoring approach has to be check during the site visit	Site visit	Y
B.10.7. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	01	DR	Yes, the formulae used are in compliance with the methodology.	Y	Y
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures					
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	01	SV	The Everest Power Private Limited is ISO certified and have proper QA/QC procedures. ISO certificates of the Everest Power Private Limited are required to be submitted.	Site visit	Y
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	01	DR	Not applicable.	N/A	Y
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	01	DR	Yes, the monitoring plan has sufficiently described the same.	Y	Y
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	01	DR	Not applicable to the project activity.	N/A	Y

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Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	01	DR	Net electricity supplied to the grid would be recorded in presence of the personnel from Electricity board and plant, thus no potential conflict of interest is envisaged.	Y	Y
B.12. Operational and Management Structure					
B.12.1. Is the authority and responsibility of project management clearly described?	01	DR	Management structure for the project activity has not been described in the PDD. The roles and responsibility for the project activity is not clear. Kindly clarify.	NIR 15	NIR 15 was closed. Y
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	01	DR	Pending due to closure of NIR 15	Pending NIR 15	NIR 15 was closed. Y
B.12.3. Are procedures identified for training of monitoring personnel?	01	DR	No procedures identified for training and maintenance for the project activity, kindly clarify the same.	NIR 16	NIR 16 was closed. Y
B.13. Monitoring Plan (Annex 4)					
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	01	DR	The monitoring plan is appropriate.	Y	Y
B.13.2. Does the monitoring plan completely describes all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	01	DR	The project activity involves supplying electricity to the grid, the same is monitored.	Y	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	01	DR	The metering is located at the substation.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.13.4. Are procedures identified for calibration of monitoring equipment?	01	DR	The procedures for calibration described in the PDD is not consistent as the frequency of calibration mentioned under Annex 4 says " PTC may conduct periodic calibration" while under section B.7.1 it says that calibration would be as per the technical specifications, kindly clarify the calibration frequency and process and the responsibility for the same.	CAR 17	CAR 17 was closed. Y
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	01	DR	According to the Annex 4 of the PDD the procedures are identified for maintenance of monitoring equipment and installations	Y	Y
B.13.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	01	SV	Procedures are identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation) in the annex 4 of the PDD need to be cross-check during site visit.	Site visit	Y
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems??	01	DR	The procedures for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems have not been described in the PDD, kindly clarify the same.	NIR 18	CAR 18 was closed. Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	01	DR	According to the Annex 4 of the PDD the procedures are identified for internal audits of GHG project compliance with operational requirements where applicable	Y	Y
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	01	SV	Same is mentioned in PDD Version 02and this needs to be discus during site visit.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.14. Baseline Details					
B.14.1. Is there any indication of a date when determine the baseline?	01	DR	Section B.8 of the PDD version 02 mention baseline determination date as 18/09/2007	Y	Y
B.14.2. Is this in consistency with the time line of the PDD history?	01	DR	This is in consistency with the time line as PDD version 02 dated 28th December, 2007	Y	Y
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?	01	DR	Yes all required data provide in a complete manner by annex 3 of the PDD version 02.	Y	Y
C. **Duration of the Project / Crediting Period**					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	01	DR	The start date of the project activity and operational lifetime as mentioned in the PDD is 18/10/2006 and 40 years, respectively. The evidence proofs of start date need to be check during site visit.	LA C	Y
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	01	DR	Fixed crediting period has been chosen for the project activity.	Y	Y
C.1.3. Does the project's operational lifetime exceed the crediting period	01	DR	The life time of the project is 40 years which exceeds the crediting period.	Y	Y
D. Environmental Impacts					
D.1.1. Does the project comply with environmental legislation in the host country?	01	DR	The necessary government approvals and consents are required to be submitted along with the EIA report.	NIR 19	NIR 19 was closed. Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
D.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?	01	DR	Pending due to closure of NIR 19	Pending NIR 19	NIR 19 was closed. Y
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	01	DR	Pending due to closure of NIR 19	Pending NIR 19	NIR 19 was closed. Y
D.1.4. Will the project create any adverse environmental effects?	01	DR	Pending due to closure of NIR 19	Pending NIR 19	NIR 19 was closed. Y
D.1.5. Are transboundary environmental impacts considered in the analysis?	01	SV	No transboundary environmental impact identified from project activity. To be verified during site visit.	Site Visit	Y
D.1.6. Have identified environmental impacts been addressed in the project design?	01	DR	The project activity is complied with all environmental legislation in the host country India.	Y	Y
E. Stakeholder Comments					
E.1.1. Have relevant stakeholders been consulted?	01	DR	The Media used to communicate the stakeholders has not been described in the PDD, kindly clarify.	NIR 20	NIR 20 was closed. Y
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	01	DR	MoM for the stakeholder consultation carried out for the project activity is required to be submitted.	CAR 21	CAR 21 was closed. Y
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	01	DR	Pending due to closure of CAR 21	Pending CAR 21	CAR 21 was closed. Y

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Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
E.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	01	DR	Pending due to closure of CAR 21	Pending CAR 21	CAR 21 was closed. Y
E.1.5. Is a summary of the stakeholder comments received provided?	01	DR	Summary of stakeholder comments is provided in PDD.	Y	Y
E.1.6. Has due account been taken of any stakeholder comments received?	01	DR	Due account taken of stakeholder comments received is mentioned in the PDD	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

References

Reference ID	Title / Description	Comments
01	PDD version 02, dated 28th December, 2007	Table 2 section A, B, C, D and E
02	ACM0002 version 07	Table 2 section B
03	UNFCCC website (http://cdm.unfccc.int/index.html)	Table 1, Table section B

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A.3 Annex 3: Overview of Findings

Findings Overview

Findings from validation of **"100 MW Malana – II, Hydro – Electric Power Project (Malana – II HEP)" at Kullu district of Himachal Pradesh State, India, by M/s Everest Power Private Limited.**
Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.
Description of Table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	Refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.
Please Note: This is an open list and more findings may be added as validation progresses.

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	01	Type:	CAR	Issue :	Host country Approval	Ref.:	Table 1, section 3
Lead Assessor Comment					Date: 25/03/2008		
Letter of approval from Host Country (India) Designated National Authority (DNA) to be submitted by the project proponent							
Project Participant Response:					Date: 28/04/2008		
The Host Country (India) Designated National Authority (DNA) has been obtained on 27th December, 2007 and provided in Annexure B.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: HCA Information Verified: The Host country letter provided the reference number of the same is 4/20/2007-CCC. The name mentioned on the same is matching with the same described under the section A.1 of the PDD.					Verified Document Reference: HCA for the project activity		
Reasoning for not acceptance or acceptance and close out: The host country Approval letter dated 27th December 2007 reference number 4/20/2007-CCC has been submitted the same was checked and found acceptable. CAR is closed.							

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	02	Type:	CAR	Issue :	Guidelines not followed	Ref.:	A.4.1
Lead Assessor Comment					Date: 25/03/2008		
The section A.4.1.4 is not as per the guidelines to complete the CDM PDD, kindly clarify							
Project Participant Response:					Date: 28/04/2008		

CDM PDD has been modified /revised as per guidelines to complete the CDM PDD (Page No. - 8). The revised PDD is attached in Annexure A.		
Acceptance and Close out by Lead Assessor:	Date: 02/12/2008	
Information Provided: Revised PDD version 03 Information Verified: The revised PDD version 03 was checked and found that section A.4.1.4 is described in more than one page, thus the same is not as per the guidelines to complete the PDD.		Verified Document Reference: Revised PDD version 03
Reasoning for not acceptance or acceptance and close out: The revised PDD version 03 section A.4.1.4 is not as per the guidelines to complete the PDD. CAR is open		
Project Participant Response:	Date: 11/07/2008	
CDM PDD has been revised as per guidelines to complete the CDM PDD (page no 4). The revised PDD is attached in Annexure A.		
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*	
Information Provided: Revised PDD version 04 Information Verified: The section A.4.1.4 was checked and is as per the guidelines.		Verified Document Reference: Revised PDD version 4
Reasoning for not acceptance or acceptance and close out: The section A.4.1.4 of the revised PDD version 4 was checked and is within one page limit and is as per the guidelines. Thus CAR is closed.		

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	03	Type:	NIR	Issue :	Purchase Orders, No change in technology	Ref.:	A.4.8
Lead Assessor Comment					Date: 25/03/2008		
Purchase orders for the project activity is required to be submitted to cross-check the technical specifications. Evidence is required that the project technology would not be substituted during the crediting period.							
Project Participant Response:					Date: 28/04/2008		
(Insert Response) Purchase Orders with technical specifications are provided in hard copies as Annexure C.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Annexure C Information Verified: Annexure C not found.						Verified Document Reference: NA	
Reasoning for not acceptance or acceptance and close out: Annexure C not found, kindly clarify. NIR is open.							
Project Participant Response:					Date: 11/07/2008		
Purchase Orders (E & M contract) with technical specifications are provided in hard copies.							
Acceptance and Close out by Lead Assessor:					Date: *22/07/2008*		

Information Provided: E&M Contact with Abir Constructions. Information Verified: The E&M Contract was checked and the specifications are the same as mentioned in the PDD version 04.	Verified Document Reference: E&M Contact with Abir Constructions
Reasoning for not acceptance or acceptance and close out: The E&M Contract was checked and the specifications are the same as mentioned in the PDD version 04. However the date of the contract is not described, kindly clarify the same. NIR is open.	
Project Participant Response:	Date: 04/11/2008
The date has been mentioned in the 1st page of the contract document (Volume I, given in the soft copies as Annexure S) which has been executed on an INR. 100 Indian Non Judicial Stamp Paper.	
Acceptance and Close out by Lead Assessor:	Date:20/10/08
Information Provided: The date of contract has been provided through the 1st page of the contract. Information Verified: Date of contract is 18th October 2006.	Verified Document Reference: E&M Contact
Reasoning for acceptance and close out: PP has submitted the first page of the contract having the date of contract as 18th October 2006, which has been checked through the E & M contract; hence this NIR was closed out.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	04	Type:	NIR	Issue:	Schedule for implementation	Ref.:	A.4.11
Lead Assessor Comment					Date: 25/03/2008		
The project is still under construction stage and schedule for the same is not available. The same is required to be described. Kindly clarify the same.							
Project Participant Response:					Date: 28/04/2008		
(Insert Response) The Project Status Report as Generated on 31st March 2008, for submission to various regulatory points and to all the lenders is attached in Annexure D, which clearly shows the present status of the construction.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Project status report. Information Verified: The project status report has been submitted and found that project would be completed by mid 2009; the same was also discussed during the site visit and found acceptable.					Verified Document Reference: Project status report		
Reasoning for not acceptance or acceptance and close out: The project status was discussed during the site visit and the same is also mentioned in the project status report. NIR is closed.							

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	05	Type:	CAR	Issue:	Financials for the project activity	Ref.:	A.5.1

Lead Assessor Comment	Date: 25/03/2008
The loan documents are required to be submitted, also evidence is required that No ODA was used in the project activity.	
Project Participant Response:	Date: 28/04/2008
(Insert Response) Common Loan Agreement with all the lenders has been provided in the Annexure Q (in Hard Copy), which clearly shows that the project is not using any ODA.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Common Loan Agreement Information Verified: Sanction letters from Rural Electrification Corporation Limited. Has been submitted the same was checked and found acceptable.	Verified Document Reference: Common Loan Agreement
Reasoning for not acceptance or acceptance and close out: Sanction letters from Rural Electrification Corporation Limited. Has been submitted the same was checked and found acceptable. The CDM consideration letter from the bank is also provided the same was checked and is acceptable. Thus it can be concluded that No ODA was used for the project activity. CAR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	06	Type:	NIR	Issue:	Project Boundary	Ref.:	B.2.1
Lead Assessor Comment					Date: 25/03/2008		
The project boundary is described as the physical boundary of the plant, the gases included in the methodology have not described in the PDD version 02, kindly clarify.							
Project Participant Response:					Date: 28/04/2008		
CDM PDD has been modified/ revised as per guidelines to complete the CDM PDD (Page no. - 8). The revised PDD has been attached in Annexure A.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Revised PDD version 03 Information Verified: The project boundary described under the section B.3 was checked and is acceptable.					Verified Document Reference: Revised PDD version 03		
Reasoning for not acceptance or acceptance and close out: The project boundary described under the section B.3 was checked and is acceptable. NIR is closed.							

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	07	Type:	CAR	Issue:	Alternatives to the project	Ref.:	B.3.1
Lead Assessor Comment					Date: 25/03/2008		
For the alternatives described in the PDD, proper references are required. Alternatives to the project are not clear as why only the project site has been considered for an alternative plant and the project boundary for the same. Clarification is required.							
Project Participant Response:					Date: 28/04/2008		
The alternatives have been explained in a simplified manner in the revised PDD (Page no. – 19) as attached in the Annexure A.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		

Information Provided: Revised PDD version 03 Information Verified: Page 19 of the PDD is not consistent with the alternatives mentioned, kindly clarify.	Verified Document Reference: Revised PDD version 03
Reasoning for not acceptance or acceptance and close out: Page 19 of the PDD version 03 is not consistent with the alternatives mentioned, kindly clarify. CAR is open.	
Project Participant Response:	Date: 11/07/2008
The alternatives have been made consistent in the revised PDD (Page no. – 17) as attached in the Annexure A	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: Revised PDD version 04 Information Verified: It is not clear why the alternative of Gas based power plant and coal based power project has not been considered as the baseline scenario, the tool for demonstration and assessment of Additionality version 4 has not been followed while eliminating the alternatives, kindly clarify.	Verified Document Reference: Revised PDD version 04
Reasoning for not acceptance or acceptance and close out: It is not clear why the alternative of Gas based power plant and coal based power project has not been considered as the baseline scenario, the tool for demonstration and assessment of Additionality version 5.2 has not been followed while eliminating the alternatives, kindly clarify. CAR is open.	
Project Participant Response:	Date: 04/11/2008
The Alternatives have been considered based on the tool for demonstration and assessment of Additionality version 5.2, and also has been followed while eliminating the alternatives. Please refer to the revised PDD attached in Annexure A (Page – 11 -12).	
Acceptance and Close out by Lead Assessor:	Date:20/10/2008
Information Provided: Alternatives to the project activity have been defined more elaborately in the revised PDD version 05. Information Verified: Alternatives have been defined in the revised PDD.	Verified Document Reference: Revised PDD version 05
Reasoning for acceptance and close out: PP has defined the alternatives of the project activity in the revised PDD version 05; please substantiate the elimination of alternatives 3 with the supporting documents.	
Project Participant Response:	Date:4/11/2008
The web link has been mentioned for elimination of alternative 3, in the revised PDD, attached as Annexure A.	
Acceptance and Close out by Lead Assessor:	Date:13/11/2008

Information Provided: The alternatives 03 is supported with relative sources through following web links :- • Biomass plants & Geo-thermal technology base power projects http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.ht • Wind Projects http://www.cwet.tn.nic.in/html/departments_wpdmap.html which are also incorporated in the revised PDD version 06 Information Verified: The PDD is revised with realistic sources of alternatives 03 and verified with relevant web links.	Verified Document Reference: Revised PDD version 06
Reasoning for acceptance and close out: The substantiation between the elimination of alternatives 03 is mention in the revised PDD version 06 by there realistic source which are checked and verified through relative web link hence CAR 09 is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	08	Type:	CAR	Issue :	Additionality tool	Ref.:	B.4.2

Lead Assessor Comment	Date: 25/03/2008
The additionality tool referred is not the latest available, kindly clarify	
Project Participant Response:	Date: 28/04/2008
The latest additionality tool has been incorporated in the revised PDD (Page no. – 19) as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: Revised PDD version 04 Information Verified: The revised PDD was checked and it does not follow the Latest Additionality tool applicable for the project activity.	Verified Document Reference: Revised PDD version 04
Reasoning for not acceptance or acceptance and close out: The revised PDD version 04 was checked and it does not follow the Latest Additionality tool applicable for the project activity (page 17,19 & 24), kindly clarify. CAR is open.	
Project Participant Response:	Date: 04/11/2008
The Revised PDD has been modified following the Latest Additionality Version applicable to the project (Page no. – 11, 13, 14 & 18).	
Acceptance and Close out by Lead Assessor:	Date:01/11/08
Information Provided: Latest version of the Additionality tool is used. Information Verified: Latest version of Additionality tool has been used to demonstrate the Additionality.	Verified Document Reference: Revised PDD version 05
Reasoning for acceptance and close out: PP has used the latest version of the Additionality tool i.e. version 05.2, hence this CAR was closed out.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	09	Type:	CAR	Issue :	Additionality	Ref.:	B.4.3

Lead Assessor Comment	Date: 25/03/2008

Also the decision to proceed with the project was taken long before, thus CDM consideration proof from a third party is required to be submitted.

The IRR for the project activity has been discussed; evidence for the same is required to be submitted. Also clarification is required as why project IRR has been compared to equity IRR.

Kindly clarify the sensitivity analysis for the project activity.

The common practice analysis carried out mentions about the scenario in 2007 and not during the planning of the project activity, kindly clarify.

Proponent needs to provide IRR spread sheet which was used at the time of PDD web hosting as per Para 08 of Annex 45 of EB 41.Please refer the web hosted PDD version 02 where it was mentioned that the project IRR is 12.5 %; please clarify reason for project IRR come down from 12.5 % to 10.41 % in the revised PDD .Also please discussed the key changes in both model in justification.

Project Participant Response:	Date: 28/04/2008

(Insert Response)
Common Loan Agreement is provided in Annexure Q in hard copies as proof from third party.
The financial model mentioning the IRR is attached in Annexure L, IRR mentioned in the financial model provided by project proponent was equity IRR, not project IRR. It is a typographical error.
The comparison of the capital costs for various other projects shows that the initial cost for setting up a hydro power project is much higher than that of the other fossil fuel based projects such as coal, gas etc. but with a lesser GHG emission for Hydro projects.
The idea of the common practice test was to establish that till date the private players in the hydro sector is very less, therefore, at the time of the planning of the project there was no private player in the hydro power sector.
During the process of project validation of Malana – II Hydro Electric Power Project of Everest Power Private Limited (EPPL), the PDD was webhosted during 24th January, 2008 – 22nd February, 2008. In the webhosted version of the PDD, the IRR value was shown as per the investment analysis as executed without the guideline of CDM EB. On 14 - 16 May 2008, EB 39, Annexure 35 "Guidance on the assessment of investment analysis" was uploaded and the project IRR model has been revised accordingly. The key differences in between the previous model and the revised model are as follows:

1. The Auxiliary Consumption & Transmission Losses as considered in the previous financial model have been revised in the current model.
    a. The Auxiliary Consumption is taken as 0.3%, which is conservative in comparison with the normative value of 0.7% (as per CERC Tariff guideline)
    b. The value that is considered for the transmission losses is 1%, which is conservative compared to the actual value needed to be taken into consideration. Please refer to the attachment on "Pooled transmission losses of Northern Regional Grid", where the values are 4.02% & 3.91% in the month of August, 2006 (Source: http://www.hpsldc.org/oalosses.pdf), at the time of financial closure dated 30th August, 2006. Hence, it can be implied that in the revised model, a conservative approach has been followed to calculate the project IRR.
2. Tax rates (Basic Tax, MAT, Dividend Distribution Tax and the surcharge, CESS applicable) submitted in the previous model has been revised as applicable as per Income Tax Rule in the revised model.
3. The norm for the Annual escalation on O & M is 4% as per the tariff guidelines notified by CERC and the typo error has been corrected in the revised model.
4. The actual interest rate at which the project was appraised and sanctioned by the Principal lender (REC) is 10.5% and not 11.25%, which has been corrected in the revised model. Please refer to the Common Loan Agreement (CLA).
5. No rebate has been committed yet by the lenders on commissioning and the same has been corrected in the revised model.
6. Depreciation rates mentioned in the previous model has been revised in the revised model as per CERC Tariff Guideline. There was no tariff calculations sheet in the previous model, which has been included for better transparency. Interest on working capital has been revised by linking to the actual as per the tariff sheet. This however does not have any other impact in the cash flow statement except the interest on working capital.

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*

Information Provided: Status report for the project, Common Loan Agreement, IRR sheet Information Verified: As per the bank letter the loan was sanctioned in 2004 thus proof of CDM consideration during the same period is required. The revised PDD under section B.4 compares Project IRR to the benchmark of equity IRR, kindly clarify. The financial sheet provided does not describe the formulas only figures have been mentioned, kindly clarify, reference to the source is required to be described. It is not clear what is the major barrier faced by the project activity.	Verified Document Reference: Status report for the project, Common Loan Agreement, IRR sheet
Reasoning for not acceptance or acceptance and close out: As per the bank letter the loan was sanctioned in 2004 thus proof of CDM consideration during the same period is required. The revised PDD version 03 under section B.4 compares Project IRR to the benchmark of equity IRR, kindly clarify. It is not clear what is the major barrier faced by the project activity. The financial sheet provided does not describe the formulas only figures have been mentioned, kindly clarify, reference to the source is required to be described. CAR is open.	
Project Participant Response:	Date: 11/07/2008
EIA is an essential part of the project investigation activities and approval by Ministry of Environment & Forest, Government of India. This is a pre-requisite for the project implementation as per Sub-rule 3 of Rule 5 of Environment Protection Act 1986, thus performed well before the actual project implementation started. The Bank Loan has been applied and got sanctioned in 17th August 2004, but due to delay in various project related approvals and other pre-requisites, the Loan for the project has actually been agreed through a Common Loan Agreement, dated 30th August 2006, which has been attached in Annexure Q in hard copies. Please also find attached (Annexure N) the Equity Subscription Agreement as happened between EPPL and Green Infrastructure Private Limited (GIPL) dated 23rd October 2003 and Subsequent Agreement between Green Infrastructure Private Limited and Everest Power Private Limited (EPPL), dated 21st March 2005 (Please Refer to Annexure O), where GIPL, as one of the major Equity participants has been stated conditional participation commitments of equity, only after successful CDM registration of the project. The said equity subscription agreements related to the development, ownership, management and control of EPPL, have been considered and thoroughly examined by Rural Electrification Corporation (REC) and other banks before the financial closure of the project was achieved and the Common Loan Agreement was executed (Please refer to Annexure Q in hard copies). So, the Common Loan Agreement has considered the above mentioned Equity Subscription Agreements and related CDM consideration of the project. A legal opinion from an Advocate on the same has been attached in Annexure P. The IRR has been considered in the PDD is the Equity IRR but not the Project IRR. It is a typographical error. The barriers have been explained in a detailed manner in the revised PDD as per the Additionality criteria as attached in the Annexure A. The values that have been taken in the Financial Calculation sheet are from the Detailed Project Report (DPR). That is the reason the figures have been used but not the formulas.	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: The PDD version 04 was revised. Information Verified:	Verified Document Reference: Revised PDD version 04 Annexure N : Equity Subscription Agreement

Reasoning for not acceptance or acceptance and close out:

- As per the bank letter the loan was sanctioned in 2004 and also MoU was signed in 2002, which shows that project was conceptualised in 2002 and the CDM should be considered at the time of conceptualisation, please provide the proof of CDM consideration during the same period. GIPL is one of the equity Investors for the project activity, kindly provide proof of CDM consideration during the sanction approval process, preferably from a third party.
- PP has replied that the Common Loan Agreement was considered as CDM consideration, which shows that the CDM was considered in 2006, while many of the above activities are undergoing above before the CDM consideration, please justify the time gap.
- Please provide the Serious CDM Consideration with third party for the project activity.
- The benchmark value selected for the project activity is as per the CERC guidelines; kindly clarify how para 40 EB 40 has been taken into account.
- EIA has been carried in 2003 while the Loan for the project was sanctioned in the year 2004, while the start date of the project activity has been considered as January 2006, please justify.

CAR is open.

Project Participant Response:	Date: 04/11/2008

- (A)The Project has been awarded to Everest Power Private Limited (EPPL) through an Memorandum of Understanding between Department of Multipurpose Projects & Power, Government of Himachal Pradesh and EPPL with numerous conditions, including the development of Detailed Project Report (DPR) showing all required technical aspects of the proposed project, development of Environmental Impacts Assessment and Environmental Management Plan, only on successful completions of the all conditions and after getting all prerequisite regulatory clearances and achieving the financial closure on 30th August 2006, EPPL completes its full conceptualization activities.
- (B)The project actually started on 18th October, 2006 as per the E & M Contract attached as Annexure S. Before the project gets started, a Board Meeting (attached as Annexure H). Again, the project has achieved the financial closure through a Common Loan Agreement (Annexure Q in hard copy) on 30th August, 2006 considering the Subsequent Agreement (with GIPL) – Annexure O, which has considered CDM in a serious manner. Further, Rural Electrification Corporation (REC) Limited has also provided an approval letter (Attached as Annexure U) on the consideration of signing the Common Loan Agreement on the basis of Subsequent Agreement, which has considered CDM in a serious manner.
- The Bank Loan has been applied and got sanctioned in 17th August 2004, but due to delay in various project related approvals and other pre-requisites, the Loan for the project has actually been agreed through a Common Loan Agreement, dated 30th August 2006, which has been attached in Annexure Q in hard copies.
- As per Annex 46 of EB 41 report, a table has been prepared on the basis of CDM consideration at various stages of the project conceptualisation and implementation and has been attached as Annexure T.
- The PDD has been revised and the PDD has been modified as per the latest EB report (EB 41), where the conservative Commercial Lending Ratio has been taken as the benchmark for the project activity and has been compared with the project IRR to establish that the project will not be financially attractive without the CDM revenue. (Please refer to page no. – 14 in the Revised PDD attached as Annexure A).
- EIA is an essential part of the project investigation activities and approval by Ministry of Environment & Forest, Government of India. This is a pre-requisite for the project implementation as per Sub-rule 3 of Rule 5 of Environment Protection Act 1986, thus performed well before the actual project implementation started. Hence, the time gap between EIA, Loan Sanctioned and Common Loan Agreement has been substantiated in the above, which has shown the time spent in actual completion of all the pre conditions including receipt of all the required regulatory approvals for the project implementation.

Acceptance and Close out by Lead Assessor:	Date:01/11/2008
Information Provided: Common loan agreement has been provided to the DOE. CDM consideration chronology has been provided to the DOE. Information Verified: Information provide by the PP is not found satisfactory.	Verified Document Reference: Revised PDD version 05, common Loan agreement, Annexure Q, Annexure T, Annexure H, DPR

Reasoning for not acceptance and close out:

- Please provide the supporting of all the assumptions used in the calculation of IRR.
- CLR used for the IRR calculation is not found from the common loan agreement, please provide the reference or page number of common loan agreement where this CLR has been evident.
- Please see the comments for Annexure T.
    1. Please justify the gap between April 2004 to March 2005.
    2. Please provide the supporting of Earlier correspondence on the project with the DNA or the UNFCCC secretariat.
    3. Please provide the supporting for Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds).
    4. There is no information about EIA in the annexure T
    5. Please provide the complete implementation schedule under Annexure T.

Project Participant Response:	Date: 4/ 11/ 2008

- The assumptions that have been used in the Calculation of IRR, have been taken from the Detailed Project Report (DPR) and some of them are the normative values as per the Central Regulatory Bodies, Government of India.
- The CLR used has been taken from the Common Loan Agreement (Page No. – 106).
- Annexure T has been modified:
    1. For the justification of the gap between April, 2004 to March 2005, a complete Implementation Schedule for the project has been attached as Annexure X.
    2. The supporting of earlier correspondence on the project with the DNA or the UNFCCC Secretariat has been provided in the modified Annexure T.
    3. For the Sale of CERs, information has been provided in the modified version of Annexure T.
    4. A complete Implementation Schedule for the project has been attached as Annexure X with a mention of all the clearances including EIA.

Acceptance and Close out by Lead Assessor:	Date:13/11/2008
Information Provided: Modified Annexure T has been provided to DOE. Revised Annexure X has been provided to DOE. Information Verified: Information provide by the PP is not found satisfactory	Verified Document Reference: Revised PDD version 06,DPR, Common Loan agreement

Reasoning for not acceptance and close out:
As per the PP assumptions used in the IRR calculation sheet are taken from the DPR and CRB, please provide the page numbers of the DPR and also provide the parent document for the following mentioned assumptions :.

Plant Details			
Unit Capacity		MW	50.00
Times: No of Units			2
Plant Gross Capacity		MW	100.00
Auxiliary Consumption			0.50%
Transformation Loss			1.00%
Tranmission Loss			1.00%
Wheeling Charges			0.00%
Banking Chages			0.00%
Royalty payable to GOHP	***till year***	***12***	12.00%
Royalty payable to GOHP	***afterwards***		18.00%
Primary Generation *(90% Dependable Year)* in Million Units		100.00 %	428.00
Excess Primary Gen. *(overrating)* in MU		0.00%	0.00
Secondary Gen. [*(50% DY-90% DY)/2]* in Million Units		0.00%	0.00
Basic Tax			30.00%
Add: Surcharge			12.20%
Dividend Distribution Tax			12.50%
Add: Surcharge			12.20%
Minimum Alternate Tax			7.50%
Add: Surcharge			12.20%

	Years	Start Year	
Tax Exemption u/s 80 I	10	6	100.00%

Interest on Working Capital	13%
Annual O&M as a % of Project Cost	2.25%
Annual O&M Escalation	4.50%

Tariff of 1st Five Years	Rs/kwh	2.64
Tariff from 6 to 11 Years	Rs/kwh	2.47
Tariff after 11 Years	Rs/kwh	2.31
Levelised Tariff of Forty Years	**Rs/kwh**	**2.50**
Secondary Gen Tariff	Rs/kwh	0.75
Rebate on Bills		2.00%

Depreciation		
Book		
Depreciable Value	90%	5,389
Method of Depreciation 1= SLM; 2=WDV		1
Annual Depreciation Rate		2.50%
Life of the Asset	Years	40
Tax		
Method of Depreciation 1= SLM; 2=WDV		2
Annual Depreciation Rate		15.00%

CAR 09 is Open

Project Participant Response:	Date: 20/11/2008
The page numbers of the DPR and reference of the parent document (source) have been mentioned in page no. 15 -16 in the revised PDD, attached as Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: 02/12/2008
Information Provided: Annexure A- PDD version 07 Information Verified: *Source of assumptions are mention in the PDD version 07*	Verified Document Reference: PDD version 07
Reasoning for not acceptance or acceptance and close out: The PDD version 07 has been revised with the spot reference mention in the page no 15-16 of the PDD. CAR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	10	Type:	CAR	Issue :	Barrier analysis	Ref.:	B.4.7

Lead Assessor Comment	Date: 25/03/2008
Barrier analysis is not carried out as per the tool for demonstration and assessment of additionality. It is not discussed how the barrier would have preventing the implementation of at least one of the alternatives discussed in the PDD. Also how CDM overcomes the barriers is not discussed. Clarification is required.	
Project Participant Response:	Date: 28/04/2008
(Insert Response) Please refer to Page no. – 21 of the revised PDD as attached in the Annexure A. It has been explained that for hydro power projects, there is a high capital cost required and the following table shows the comparison between hydro based power project and all the other options available for power generation and concludes that for other alternatives the barrier of high capital cost is not present. The development of hydro power projects bearing high capital investment, long constructional period, difficult natural condition (like hilly region), hydrological uncertainty, rehabilitation and interstate governmental problem etc. Due to these reasons nearly 20.7% (source:http://www.cea.nic.in/hydro/Status%20of%20Hydroelectric%20Potential%20Development.pdf)of total hydro power potential is explored in India. **Typical capital costs for power projects in India**	

Type of power project	Capital Cost (USD Mn / MW)
Gas based	0.88
Coal based	0.88
Wind	1.01
Co-generation	0.99
Malana – II HEP	1.32 (5.98*10 / 45.33)

The burden on the project proponent due to high capital cost and its impact on the project financial health during implementation and operation of the project can be compensated with the cash flow of Certified Emission Reductions (CERs) revenue, which the project will be able to acquire during its initial 10 years of operation.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Revised PDD version 03. Information Verified: The same is not as per the tool for demonstration of Additionality. Kindly clarify. It is not clear what is the major barrier faced by the project activity.	Verified Document Reference: Revised PDD version 03.

Reasoning for not acceptance or acceptance and close out: The same is not as per the tool for demonstration of Additionality. Kindly clarify. What is the major barrier faced by the project activity. CAR is open.	
Project Participant Response:	Date: 11/07/2008
The Additionality Criteria has been described as per the tool for demonstration of Additionality in the Revised PDD. Barriers have been explained in the Revised PDD as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: Information Verified:	Verified Document Reference: PDD version 04
Reasoning for not acceptance or acceptance and close out: The alternatives to the project activity have been mentioned but it is not explained how they do not face any barrier, and is not described as per the tools to demonstrate additionality. Kindly clarify.	
Project Participant Response:	Date: 04/11/2008
The Barrier Analysis has been removed from the Project Additionality part and a clear and transparent Investment analysis has been mentioned to prove the project additionality. Again, to address the investment hurdle, a Board Meeting was held to consider CDM revenue in a serious manner prior to project implementation to make the project financially attractive. A transparent Investment analysis has been mentioned in the PDD attached as Annexure A.	
Acceptance and Close out by Lead Assessor:	Date:01/11/08
Information Provided: Barrier analysis has been removed from the revised PDD version 05 and the investment analysis has been used as a part of the Additionality tool. Information Verified: Barrier analysis has been removed form the PDD and the investment analysis is used for the Additionality demonstration.	Verified Document Reference: Revised PDD 05
Reasoning for acceptance and close out: PP has removed the discussion on barrier analysis and the Additionality is now demonstrated as per the tools of Additionality and has been found satisfactory, hence this CAR was closed out.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	11	Type:	CAR	Issue :	Emission reductions	Ref.:	B.5.1

Lead Assessor Comment	Date: 25/03/2008
The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent.	
Project Participant Response:	Date: 28/04/2008
It is attached in Annexure K.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Emission reduction sheet. Information Verified: The same does not describe yearly emission reductions, kindly clarify.	Verified Document Reference: Emission reduction sheet.
Reasoning for not acceptance or acceptance and close out: The same does not describe yearly emission reductions, kindly clarify. CAR is open.	
Project Participant Response:	Date: 11/07/2008
Please find the revised Excel Sheet describing the yearly emission reductions in the Annexure K	

Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: Emission reduction calculation sheet. Information Verified: The Same has been provided it was checked and is acceptable. The total amount of emission reductions are the matching with the PDD.	Verified Document Reference: Emission reduction calculation sheet.
Reasoning for not acceptance or acceptance and close out: The Same has been provided it was checked and is acceptable. The total amount of emission reductions are the matching with the PDD. CAR is closed	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	12	Type:	CAR	Issue :	Guidelines not followed	Ref.:	B.8.2

Lead Assessor Comment	Date: 25/03/2008
The table under section B.6.4 has not been applied correctly as per the guidelines to complete the CDM PDD.	
Project Participant Response:	Date: 28/04/2008
CDM PDD has been modified/ revised as per guidelines to complete the CDM PDD (Page no. – 23) as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Revised PDD version 04 Information Verified: The revised PDD was checked and the table under the section B.6.4 is as per the guidelines to complete the PDD.	Verified Document Reference: Revised PDD version 04
Reasoning for not acceptance or acceptance and close out: The revised PDD version 04 was checked and the table under the section B.6.4 is as per the guidelines to complete the PDD. CAR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	13	Type:	CAR	Issue :	Monitoring parameters	Ref.:	B.9.1

Lead Assessor Comment	Date: 25/03/2008
The monitoring parameters mentioned under the section B.7are not as per the monitoring methodology of ACM0002, kindly clarify.	
Project Participant Response:	Date: 28/04/2008
(Insert Response) CDM PDD has been modified /revised as per guidelines to complete the CDM PDD (Page no. – 32) as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Revised PDD version 04. Information Verified: The monitoring methodology ACM0002 is not being followed, kindly clarify.	Verified Document Reference: Revised PDD version 04.

Reasoning for not acceptance or acceptance and close out: The monitoring methodology ACM0002 is not being followed, kindly clarify. CAR is open.	
Project Participant Response:	Date: 11/07/2008
Please refer to the Revised PDD as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: Revised PDD version 05 Information Verified: The revised PDD version 05 was checked and all the parameters are monitored as ACM0002 version 7, but the recording frequency of the grid emission factor is inappropriate, kindly clarifies.	Verified Document Reference: PDD version 05
Reasoning for not acceptance or acceptance and close out: The revised PDD was checked and all the parameters are monitored as ACM0002 version 7, but the recording frequency of the grid emission factor is inappropriate, kindly clarifies. CAR is open.	
Project Participant Response:	Date: 04/11/2008
Please refer to the Revised PDD as Annexure A (Page No. – 21 & 25), where the appropriate recording frequency of the grid emission factor has been mentioned.	
Acceptance and Close out by Lead Assessor:	Date:01/11/2008
Information Provided: Grid emission factor has been updated Information Verified: Grid EF has not calculated as per the tools to calculate emission factor for an electricity system.	Verified Document Reference: Revised PDD version 06
Reasoning for not acceptance and close out: • AS per the methodology the “Tool to calculate the emission factor for an electricity system” should be used to calculate the emission factor, please justify. • As per the methodology “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion.” Should be used to calculate the project emission, please justify.	
Project Participant Response:	Date: 4/ 11/ 2008
• To calculate the emission factor, the “CO_2 Baseline Database of Indian Power Sector”, version 03. 15th December, 2007, published by Central electricity Authority (CEA), Government of India, has been used, which is based on the “Tool to calculate the emission factor for an electricity system” *(Source: http://cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm).* As per the latest version of the methodology used, ACM0002, version 07, 14th December, 2007, (page no. - 8), if the power density (PD) of the power plant is greater than 10 W/m^2, the project Emission will be zero. As the power density calculated for the project is calculated as 2857 watt/m^2, greater than 10 W/ m^2, the project emission has been taken as zero. This has been incorporated in the PDD also, attached as Annexure A (Page no. - 19).	
Acceptance and Close out by Lead Assessor:	Date:13/11/2008
Information Provided: The CEA data base for calculation of grid emission factor. Methodology ACM0002 version 07 Information Verified: The grid emission factor are taken from CEA Database which is publically available and calculated by DNA of India which is based on the “Tool to calculate the emission factor for an electricity system” ACM0002 version 07 mention applicability of project emission.	Verified Document Reference: Revised PDD version 07

Reasoning for not acceptance and close out: The Combined Margin is 807.53 tonnes CO2 / GWh (For Northern Grid) is taken in baseline emission calculation which is adopt from CEA database (Source: *http://cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)* According to ACM0002 version 07 mention that project emission for hydro power plant option (b) If the power density (PD) of the power plant is greater than 10 W/m2; then project emission well be zero and the proposed project activity having power density more then 10 W/m2 which is checked and verified. The same was checked and found satisfactory, hence CAR13 was closed.

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	14	Type:	CAR	Issue :	Data archiving procedures	Ref.:	B.10.1

Lead Assessor Comment	Date: 25/03/2008
The data archiving system has not been discussed for the parameters to be monitored in the PDD. Kindly clarify	
Project Participant Response:	Date: 28/04/2008
CDM PDD has been modified as per guidelines to complete the CDM PDD (Page no. – 29, 31, 32) as attached in the Annexure A, mentioning the data archiving system and also the period of data archiving of the monitored data.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Revised PDD version 04 Information Verified: The revised PDD does not discuss how long the data monitored would be archived. Clarification is required.	Verified Document Reference: Revised PDD version 04
Reasoning for not acceptance or acceptance and close out: The revised PDD does not discuss how long the data monitored would be archived. Clarification is required. CAR is open.	
Project Participant Response:	Date: 11/07/2008
Please refer to the Revised PDD (Page No. – 26) as attached in the Annexure A.	
Acceptance and Close out by Lead Assessor:	Date: *22/07/2008*
Information Provided: The revised PDD version 05 is modified. Information Verified: The PDD under the section B.7.2 for monitoring parameters mentions that the Data would be stored electronically for all the parameters. The hard copies of invoices and meter readings are also required to be stored, kindly incorporate the same.	Verified Document Reference: Revised PDD version 05
Reasoning for not acceptance or acceptance and close out: The PDD under the section B.7.2 for monitoring parameters mentions that the Data would be stored electronically for all the parameters. The hard copies of invoices and meter readings are also required to be stored, kindly incorporate the same. CAR is open	
Project Participant Response:	Date: 04/11/2008
Please refer to the Revised PDD as Annexure A (Page No. 21 – 22 & 24 – 25) where, the suggested component has been incorporated.	
Acceptance and Close out by Lead Assessor:	Date:01/11/2008
Information Provided: The information suggested by the DOE has been incorporated in the revised PDD version 06. Information Verified: Information about data archiving is satisfactory now.	Verified Document Reference: Revised PDD version 06

Reasoning for acceptance and close out: PP has incorporated the information about the data archiving in the revised PDD version 06, hence this CAR was closed out.

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	15	Type:	NIR	Issue :	Roles and responsibility	Ref.:	B.12.1
Lead Assessor Comment					Date: 25/03/2008		
Management structure for the project activity has not been described in the PDD. The roles and responsibility for the project activity is not clear. Kindly clarify.							
Project Participant Response:					Date: 28/04/2008		
The roles and responsibilities of the Management group have been already explained in the Monitoring plan of the revised PDD (Refer to page no. 51-52). Please find attached the detailed Management Structure of the project along with a description of roles and responsibilities, as attached in the Annexure M.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Annexure M, Revised PDD version 04 Information Verified: The management structure provided does not describe about the roles and responsibility for the CDM project activity, kindly clarify.					Verified Document Reference: Annexure M (Management Structure), Revised PDD version 04		
Reasoning for not acceptance or acceptance and close out: The management structure provided does not describe about the roles and responsibility for the CDM project activity, kindly clarify. CAR is open.							
Project Participant Response:					Date: 11/07/2008		
Please refer to the Monitoring Information (Annex 4 in the revised PDD)							
Acceptance and Close out by Lead Assessor:					Date: *22/07/2008*		
Information Provided: Revised PDD version 05 Information Verified: The same is mentioned under Annex 4 of the revised PDD and was discussed with the project proponent and is acceptable.					Verified Document Reference: Revised PDD version 05		
Reasoning for not acceptance or acceptance and close out: The same is mentioned under Annex 4 of the revised PDD version 05 and is acceptable. CAR is closed.							

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	16	Type:	NIR	Issue :	Training & Maintenance	Ref.:	B.12.3
Lead Assessor Comment					Date: 25/03/2008		
No procedures identified for training and maintenance for the project activity, kindly clarify the same.							
Project Participant Response:					Date: 28/04/2008		
The CDM group constituted after suitable training on CDM and its related monitoring activities with participation of Project Manager, Site Supervisor and Shift In charge, will be responsible and review periodically all the requirements of monitoring the CDM projects and maintain logbooks. The CDM PDD has been revised along with a description of the Training & Maintenance plan of the project activities (page no. 51) as attached in the Annexure A.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		

Information Provided: Revised PDD version 04 Information Verified: The revised PDD was checked and it describes that Internal audit would be carried out and Training would be provided, the same was discussed during the site visit and found acceptable.	Verified Document Reference: Revised PDD version 04
Reasoning for not acceptance or acceptance and close out: The revised PDD version 04 was checked and it describes that Internal audit would be carried out and Training would be provided, the same was discussed during the site visit and found acceptable. NIR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	17	Type:	CAR	Issue :	Calibration	Ref.:	B.13.4
Lead Assessor Comment					Date: 25/03/2008		
The procedures for calibration described in the PDD is not consistent as the frequency of calibration mentioned under Annex 4 says " PTC may conduct periodic calibration" while under section B.7.1 it says that calibration would be as per the technical specifications, kindly clarify the calibration frequency and process and the responsibility for the same.							
Project Participant Response:					Date: 28/04/2008		
Normally testing will be done once in a year. But as per the written notice given to the Company by Power Trading Corporation (PTC), it may conduct Periodic Performance Test at any time during the Operation Period. PTC issues a written notice to the Company, to conduct one Periodic Performance Test in each Operation Year.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Clarification for calibration frequency of meters. Information Verified: The revised PDD for the monitoring parameter "Amount of electricity sale" mentions that the electricity meter would be calibrated as per the technical specifications while under Annex 4 it mentions frequency of calibration may be periodic, kindly clarify the same.						Verified Document Reference: Revised PDD version 04	
Reasoning for not acceptance or acceptance and close out: The revised PDD version 04 for the monitoring parameter "Amount of electricity sale" mentions that the electricity meter would be calibrated as per the technical specifications while under Annex 4 it mentions frequency of calibration may be periodic, kindly clarify the same. CAR is open.							
Project Participant Response:					Date: 11/07/2008		
The performance test for calibration of meters will be as per Power Purchase Agreement.							
Acceptance and Close out by Lead Assessor:					Date: *22/07/2008*		
Information Provided: The calibration details mentioned in the PPA page no 56. Information Verified: Kindly describe the frequency of calibration as mentioned in the PPA.						Verified Document Reference: PPA	
Reasoning for not acceptance or acceptance and close out: Kindly describe the frequency of calibration as mentioned in the PPA. CAR is open.							
Project Participant Response:					Date: 04/11/2008		
The frequency of the calibration as per the PPA has been mentioned in the Revised PDD attached as Annexure A (Page no. – 51-52).							
Acceptance and Close out by Lead Assessor:					Date:01/11/2008		

Information Provided: Frequency of calibration is mentioned now in the revised PDD version 07. Information Verified: Frequency of calibration has been mentioned in the revised PDD version 07.	Verified Document Reference: Revised PDD version 07
Reasoning for not acceptance or acceptance and close out: Frequency of calibration is now mentioned in Annex 4 of the revised PDD version 07; hence this CAR was closed out.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	18	Type:	NIR	Issue :	Data monitoring	Ref.:	B.13.7
Lead Assessor Comment					Date: 25/03/2008		
The procedures for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems have not been described in the PDD, kindly clarify the same.							
Project Participant Response:					Date: 28/04/2008		
The procedure for dealing with possible monitoring data adjustment and missing data has been described in the Internal Audit paragraph of the Monitoring section of the revised PDD (Annexure 4 in the PDD), as attached in the Annexure A.							
Acceptance and Close out by Lead Assessor:					Date: *02/12/2008*		
Information Provided: Revised PDD version 04 Information Verified: The revised PDD version 04mentions that internal audits would be carried out and if any irregularity is observed immediate actions would be taken, the same was discussed during the site visit and found acceptable.					Verified Document Reference: Revised PDD version 04		
Reasoning for not acceptance or acceptance and close out: The revised PDD version 04 mentions that internal audits would be carried out and if any irregularity is observed immediate actions would be taken, the same was discussed during the site visit and is acceptable. NIR is closed.							

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	19	Type:	NIR	Issue :	Consent and approval	Ref.:	D.1.1
Lead Assessor Comment					Date: 25/03/2008		
The necessary government approvals and consents are required to be submitted along with the EIA report.							
Project Participant Response:					Date: 28/04/2008		

All the Government Approvals and consents have been provided in hard copies under Annexure H, in the following order: ▪ Implementation Agreement ▪ EIA Clearance ▪ Forest Clearance ▪ NOC Irrigation ▪ Site Clearance ▪ Fisheries NOC ▪ Board Meeting Resolution

Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Implementation Agreement, EIA Clearance, Forest Clearance, NOC Irrigation, Site Clearance, Fisheries NOC and Board Meeting Resolution. Information Verified: The documents were checked and it was observed that the initial Agreement with Government of Himachal Pradesh was carried on 14/01/2003 instead of 13/01/2003	Verified Document Reference: Clearances Documents
Reasoning for not acceptance or acceptance and close out: The documents were checked and it was observed that the initial Agreement with Government of Himachal Pradesh was carried on 14/01/2003 instead of 13/01/2003, as per the Annexure X: Implementation Schedule. The Board note dated 26/03/2004 was checked and it discussed about availing CERs for the project activity. EIA Clearance and Forest Clearances were checked is acceptable. NIR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	20	Type:	NIR	Issue:	Media to communicate stakeholders	Ref.:	E.1.1

Lead Assessor Comment	Date: 25/03/2008
The Media used to communicate the stakeholders has not been described in the PDD, kindly clarify.	
Project Participant Response:	Date: 28/04/2008
(Insert Response) Please refer to page no 4 - 13 in Himachal Pradesh State Pollution Control Board Clearance. Attached in Annexure I.	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*
Information Provided: Himachal Pradesh State Pollution Control Board Clearance. Information Verified: The clearance was checked and it mentions about the public notice circulated in various newspapers on 27 – 28th February 2004 intimating the stakeholders for public meeting to be carried on 11th May 2004. The clearance submitted is from Himachal Pradesh State Pollution Control Board and the same is authentic.	Verified Document Reference: Himachal Pradesh State Pollution Control Board Clearance.
Reasoning for not acceptance or acceptance and close out: The clearance was checked and it mentions about the public notice circulated in various newspapers on 27 – 28th February 2004 intimating the stakeholders for public meeting to be carried on 11th- 12th May 2004 which was later postponed on 18th – 19th May 2004. The clearance submitted is from Himachal Pradesh State Pollution Control Board and the same is authentic. NIR is closed.	

Date:	25/03/2008			Raised by:	Nikunj Agarwal		
No.:	21	Type:	CAR	Issue :	MoM for stakeholder consultation process	Ref.:	E.1.2

Lead Assessor Comment	Date: 25/03/2008
MoM for the stakeholder consultation carried out for the project activity is required to be submitted.	
Project Participant Response:	Date: 28/04/2008
(Insert Response) Attached in Annexure G (Stakeholders' comments).	
Acceptance and Close out by Lead Assessor:	Date: *02/12/2008*

Information Provided: Proceedings of Public hearing. Information Verified: The Public hearing for the project activity was carried out Himachal Pradesh State Pollution Control Board and the proceedings have been provided by the same and are an authentic document. The proceedings were checked and discussed with the project proponent and found acceptable.	Verified Document Reference: Proceedings of Public hearing.
Reasoning for not acceptance or acceptance and close out: The Public hearing for the project activity was carried out Himachal Pradesh State Pollution Control Board and the proceedings have been provided by the same and are an authentic document. The proceedings were checked and discussed with the project proponent and found acceptable. CAR is closed.	

A.4 Annex 4: Team Members Statements of Competency

Statement of Competence

Name: Ahirwar,Vivek SGS Affiliate: SGS India

Status

-	Lead Assessor	x	-	Expert	x
-	Assessor	x	-	Financial Expert	
-	Local Assessor	x	-	Technical Reviewer	

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)
Sub scope(s):
2. Energy Distribution **x**
Sub scope(s): Energy Distribution
3. Energy Demand
Sub scope(s):
4. Manufacturing
Sub scope(s):
5. Chemical Industry
Sub scope(s):
6. Construction
Sub scope(s):
7. Transport
Sub scope(s):
8. Mining/Mineral Production
Sub scope(s):
9. Metal Production
Sub scope(s):
10. Fugitive Emissions from Fuels (solid, oil and gas)
Sub scope(s):
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Sub scope(s):
12. Solvent Use
Sub scope(s):
13. Waste Handling and Disposal
Sub scope(s):
14. Afforestation and Reforestation
Sub scope(s):
15. Agriculture
Sub scope(s):

Approved Member of Staff by: Siddharth Yadav Date: 28/10/2009

Statement of Competence

Name: Gupta, Ajoy SGS Affiliate: SGS India

Status

-	Lead Assessor	x	-	Expert	x
-	Assessor	x	-	Financial Expert	
-	Local Assessor	x	-	Technical Reviewer	x

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) x
Sub scope(s): Hydro, Wind, Combined heat and Power & Waste Heat, Biomass Electricity Utilization

2. Energy Distribution
Sub scope(s):

3. Energy Demand
Sub scope(s):

4. Manufacturing
Sub scope(s):

5. Chemical Industry
Sub scope(s):

6. Construction
Sub scope(s):

7. Transport
Sub scope(s):

8. Mining/Mineral Production
Sub scope(s):

9. Metal Production
Sub scope(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)
Sub scope(s):

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Sub scope(s):

12. Solvent Use
Sub scope(s):

13. Waste Handling and Disposal
Sub scope(s):

14. Afforestation and Reforestation
Sub scope(s):

15. Agriculture
Sub scope(s):

Approved Member of Staff by: Siddharth Yadav Date: 28/10/2009

Statement of Competence

Name:Nikunj Agarwal SGS Affiliate:SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☒
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☒
2. Energy Distribution ☒
3. Energy Demand ☒
4. Manufacturing ☒
5. Chemical Industry ☐
6. Construction ☐
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☐
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Sanjeev Kumar Date: 12/01/2009