

Verification and Certification Report

First periodic verification

Report for:

Abohar Power Generation Private Limited

Verification of CDM project for
Abohar Branch Canal Based Small Hydro Project in
Punjab, India
(UNFCCC Ref No. 4856)

Monitoring Period:
28/12/2011 to 30/11/2012 (Inclusive of both the
days)

LRQA Reference : MUM-0061941, version 02
Date : 14/06/2013
Work carried out by : Sanjay Kumar Agarwalla
Syju Alias

Work verified by : Imran Ustad
Javier Vallejo Drehs



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1 Executive Summary

Lloyd's Register Quality Assurance Limited has been contracted by Abohar Power Generation Private Limited (APGPL), representing the project participants (PP), to undertake the first periodic verification of the registered project activity "Abohar Branch Canal Based Small Hydro Project in Punjab, India" project reference number 4856 covering the first monitoring period from 28/12/2011 to 30/11/2012. The verification has been performed by document review based on the Monitoring Report Version 01 dated 06/12/2012, on-site assessment and interviews with the stakeholders, resolution of outstanding issues and issuance of the verification report.

The project intends to reduce greenhouse gas (GHG) emissions by installation of a grid connected canal drop hydro power projects on the Abohar Branch Canal, in the state of Punjab in India aggregating to a total capacity of 5.3 MW. The electricity generated by the project activity is supplied to Punjab State Electricity Board (PSEB) in the Punjab state of India. The project consists of five (5) sites viz. Khanpur, Sudhar, Akhara, Gholian and Channowal with installed capacities of 1.1 MW (=2 x 550 kW), 1.4 MW (=2 x 700 kW), 1.1 MW (=2 x 550 kW), 0.8 MW (=1 x 800 kW) and 0.9 MW (=1 x 900 kW) respectively. The electricity generated by the project activity is supplied to the NEWNE grid, which is predominantly fossil fuel based, thereby reducing GHG emissions.

The fulfilment of the requirements as set forth in the Article 12 of the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC), the modalities and procedures for a CDM and relevant decisions of the Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol (COP/MOP) and the Executive Board of the CDM (CDM-EB) has been evaluated and the conformance to the verification requirements were confirmed based on the given information. A risk based approach was taken to conduct the verification, and corrective action requests (CARs) and clarifications (CLs) were issued for relevant actions by the PP.

The verification team identified, through the verification process, 4 CARs and 3 CLs. The PP has taken actions and submitted to LRQA the revised monitoring report and supporting evidence. The verification team, through the verification process, confirmed that the emission reductions achieved by the project activity during the monitoring period are correctly calculated in the monitoring report Version 03 dated 13/06/2013 based on the approved monitoring methodology and the monitoring plan of the registered PDD. Therefore LRQA certifies the emission reductions amounting to 21,837 tCO₂e and requests the CDM-EB to issue the CERs.

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Abbreviations

APGPL	Abohar Power Generation Private Limited
BE	Baseline emissions
CAR	Corrective action request
CDM	Clean Development Mechanism
CDM-EB	Executive Board of Clean Development Mechanism
CDM M&P	Modalities and procedures for a clean development mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CL	Clarification
COP/MOP	Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol
DOE	Designated Operational Entity
ERs	Emission reductions
FAR	Forward action request
GHG	Greenhouse gas
IPCC	Intergovernmental panel on climate change
JMR	Joint Meter Reading
KP	Kyoto Protocol of the United Nations Framework Convention on Climate Change
kW	Kilo Watt
kWh	Kilo Watt hour
LR	Lloyd's Register
LRQA	Lloyd's Register Quality Assurance Limited
MMTS	Meter Mobile Testing Squad
MP	Monitoring period
MR	Monitoring Report
MW	Mega Watt
MWh	Mega Watt hour
NA	Not applicable
NABL	National Accreditation Board for Testing and Calibration Laboratories
NEWNE	Northern, Eastern, Western, and North-Eastern Grid
ODA	Official Development Assistance
PDD	Project design document
PLF	Plant Load Factor
PP	Project participant
PPA	Power Purchase Agreement
PSEB	Punjab State Electricity Board
PS	Project Standard
QA/QC	Quality Assurance / Quality Control
tCO ₂ e	Tonne of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard



2 Introduction

The project participant (PP) represented by Abohar Power Generation Private Limited has contracted with Lloyd's Register Quality Assurance Limited (LRQA) to undertake the first periodic verification of the proposed project activity "Abohar Branch Canal Based Small Hydro Project in Punjab, India" covering the monitoring period from 28/12/2011 to 30/11/2012. This report summarises the findings through the verification process that has been conducted on the verification requirements of the CDM.

The verification has been undertaken by the team formed of the qualified personnel of LRQA as follows:

Sanjay Kumar Agarwalla	LRQA India	Team Leader, CDM Lead Verifier and Sector Expert
Syju Alias	LRQA India	Team Member, CDM Verifier and Sector Expert
Imran Ustad	LRQA India	Technical Reviewer and Sector Expert
Javier Vallejo Drehs	LRQA Ltd	Decision Maker

Personnel being engaged in CDM project verification are qualified based on the established procedures of LRQA to assure the resource requirements that satisfy all the requirements of competence criteria of the CDM accreditation standard for operational entities. LRQA is designated as an operational entity and holds the full responsibility on decision-making regarding the verification in accordance with the accreditation requirements of the CDM-EB. The certificate of appointment of the team personnel is attached to this report.

2.1 Objective

Through the verification activities, the verification team was to confirm that:

- 1) the project activity has been implemented and operated as described in the validated and registered PDD and that all physical features of the project activity are in place
- 2) the monitoring report (MR) and other supporting documents provided are complete and verifiable, and in accordance with applicable CDM requirements
- 3) actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan (MP) and the approved methodology; and
- 4) the data is recorded and stored as per the monitoring methodology.

The verification followed the requirements of the current version of the CDM Validation and Verification Standard (CDM VVS) to ensure the quality and consistency of the verification work and the report.

2.2 Scope

The scope of verification was an independent and objective review of the monitored emission reductions (ERs) against the verification requirements of the CDM M&P. LRQA followed a risk-based approach in the verification, focusing on the identification of significant risks for implementation of the registered monitoring plan and the resultant emission reductions. The verification statement shall become final after final review by the decision maker of LRQA Ltd.



2.3 GHG Project Description

Project title	Abohar Branch Canal Based Small Hydro Project in Punjab, India				
CDM reference	4856				
Date of registration	28/12/2011				
Applied methodology	AMS I.D, version 16				
Crediting period	28/12/2011 to 27/12/2021 (fixed)				
Project location	The project consists of five sites whose locations are as follows:				
	Site	Town	District	State	GPS co-ordinates
	Khanpur	Khanpur	Ludhiana	Punjab	30.7859 N 75.9073 E
	Sudhar	Sudhar	Ludhiana	Punjab	30.7675 N 75.6469 E
	Akhara	Akhara	Ludhiana	Punjab	30.7612 N 75.4931 E
	Gholian	Gholian	Moga	Punjab	30.6008 N 75.2147 E
	Channowal	Channowal	Moga	Punjab	30.6439 N 75.1055 E
Project participants	Abohar Power Generation Private Limited				
Monitoring period	28/12/2011 to 30/11/2012				

3 Methodology

3.1 Verification approach

LRQA's verification of the project documentation provided by the project participant was based on both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the monitoring report submitted to LRQA. Qualitative information is made up of the information on internal management controls, calculation procedures, procedures for transfer of data, frequency of emission reports, and review and internal audit of calculations.

As well as the monitoring documentation provided by the project participants, LRQA also reviewed:

- the registered PDD and the monitoring plan and the corresponding validation report
- the applied monitoring methodology
- relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board
- any other information and references relevant to the project's resulting emissions reductions.

LRQA also confirmed that the Monitoring Report is as per the standardised format.



LRQA also confirmed that this is first periodic verification and also there was no FAR raised during the validation which needs to be addressed during this verification.

3.2 Desk review

The verification was performed primarily based on the review of the monitoring report and the supporting documentation. This process included:

- 1) a review of data and information presented to verify their completeness
- 2) a review of the MP and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the QA/QC procedures, and
- 3) an evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report version 01 dated 06/12/2012 was initially reviewed and LRQA requested the PP to present the supporting information and documents and such additional information and documents were also reviewed by LRQA. The documents reviewed by LRQA are listed in Appendix A.

Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by LRQA. The documents reviewed by LRQA are listed in Appendix A. LRQA reviewed the final version of the monitoring report version 03 dated 13/06/2013 to confirm that all changes agreed had been incorporated.

3.3 On-site assessment

An on-site assessment was conducted as a part of verification activity and involved:

- 1) an assessment of the implementation and operation of the CDM project activity as per the registered PDD
- 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters
- 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP
- 4) a cross-check between information provided in the MR and data from other sources
- 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology
- 6) A review of calculations and assumptions made in determining the GHG data and ERs, and
- 7) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters.

The detail of the on-site assessment is as follows:



Date	Location	Team Members on site	Subjects covered	Persons interviewed
14/01/2013	PP office, Delhi	Sanjay Kumar Agarwalla and Syju Alias	Project implementation, Data Management and reporting, Legal approvals for the project	Amit Kumar Agarwal Sachin Pahuja
15/01/2013	Project sites: Khanpur, Sudhar and Akhara sites in Ludhiana district; Akhara and Channowal sites in Moga district of Punjab State	Sanjay Kumar Agarwalla	<ol style="list-style-type: none"> 1. Status of project implementation 2. Confirmation of technical specifications of project equipment 3. Monitoring systems and calibration// Electricity Monitoring /measuring systems 4. Monitoring and reporting procedures 5. Emergency procedures –Change / failure in meters / equipment 6. Emission reductions data 7. QA/QC procedures 8. Training activities for staffs 9. Record keeping – daily production report, breakdown / maintenance log 10. Project Boundary confirmation 11. Confirmation of project GPS coordinates 12. Compliance to regulatory requirements 	<ol style="list-style-type: none"> 1. Jaswinder Singh / Section Head / APGPL 2. Vishnu Ronthla / Accountant / APGPL 3. Harjot Singh / Electrical Maintenance / Khanpur 4. Lakhvir Singh / Mechanical Maintenance / Khanpur 5. Jaspal Singh / Local Stakeholder / Khanpur 6. Surpreet Singh / Plant Shift Supervisor / Sudhar 7. Gurmeet Singh / Electrical Maintenance / Sudhar 8. Jagtar Singh / Local Stakeholder / Sudhar 9. Hardeep Singh / Plant Shift Supervisor / Akhara 10. Gurjit Singh / Technical Assistant / Akhara 11. Charan Singh / Local Stakeholder / Akhara 12. Satpal Singh / Plant Shift Supervisor / Channowal 13. V Srikant Rao / Technical Assistant / Channowal 14. Manpreet Singh / Local Stakeholder / Channowal 15. Karmjeet Singh / Plant Shift Supervisor / Gholian 16. Akhilesh Mondal / Technical Assistant / Gholian 17. Amardeep Singh / Local Stakeholder / Gholian



For details of all the findings of the desk review and site visit, please refer to the Verification Protocol and Findings in Appendix C.

3.4 Quality of evidence

When verifying the report emission reduction, LRQA ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data are shown in Appendix A.

When assessing the audit trails, LRQA also examined:

1. whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. the source and nature of the evidence
3. if comparable information was available from sources other than that used in the monitoring report, LRQA cross-checked the monitoring report against the other sources to confirm that the stated figures were correct. The sources and the data referenced are shown in Appendix A.

LRQA also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology.

3.5 Resolution of clarification and corrective action requests

LRQA, during this verification, identified issues related to the monitoring, implementation or operation of the proposed CDM project activity that could impair the capacity of the proposed CDM project to achieve emission reductions or influence the reporting of emission reductions. LRQA has identified, discussed and concluded these issues within the Verification Protocol and Findings – Appendix C.

LRQA has raised a Corrective Action Request (CAR) if one of the following occurred:

1. A non-compliance with the monitoring plan or methodology is found in the monitoring and reporting that has not been sufficiently documented by the project participants, or the evidence provided to prove conformity is insufficient
2. Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants
3. Mistakes have been made in applying assumptions, data or calculations in relation to emission reductions that will impact upon the quantity of emission reductions
4. Issues identified in a FAR during validation or previous verification(s) to be verified during verification have not been resolved by the project participants.

LRQA has raised a Clarification Request (CL) if information was insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

All CARs and CLs raised by LRQA during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the CDM Executive Board.

3.6 Internal quality control

The technical review by a qualified person independent from the verification team, and a review by an authorised decision maker are conducted before the submission of the verification report to the PP and before requesting the issuance of the verified ERs.



4 Verification protocol and conclusions

LRQA has undertaken this verification in accordance with the verification protocol (which is based on the Clean Development Mechanism Validation and Verification Standard Version 03.0). This section provides an overview of the verification activities and general conclusions. Further details in relation to each element of the protocol and to each finding are shown in Verification Protocol and Findings – Appendix C.

The protocol is structured based on the main verification requirements as follows:

- compliance of the project implementation with the registered project design document
- compliance of the monitoring plan with the monitoring methodology, including applicable tool(s)
- compliance of monitoring activities with the registered monitoring plan
- compliance with the calibration frequency requirements for measuring instruments
- assessment of data and calculation of emission reductions.

4.1 Compliance of the project implementation with the registered project design document

LRQA has determined during the verification process that:

- the implementation and operation of the project activity has been conducted in accordance with the description contained in the registered PDD

LRQA has, by means of a desk review and an on-site visit, assessed that:

- all physical features of the proposed CDM project activity proposed in the registered PDD are in place
- the project participants have operated the proposed CDM project activity as per the registered PDD

For details of the implementation status of the project, the actual operation of the proposed CDM project activity, any information provided in the monitoring report that is different from that stated in the registered PDD¹, and any approvals of the necessary request of notification or request for approval of changes, please refer to the Verification Protocol in Appendix C.

4.2 Compliance of the monitoring plan with the monitoring methodology, including applicable tool(s)

LRQA has determined that the project implementation is in accordance with the provisions of the registered PDD and has also verified that the validated monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity.

For details relating to this section, please refer to the Verification Protocol in Appendix C.

LRQA confirms that the monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity.

¹ And has caused an increase in estimates of the emission reductions in the current monitoring period or is highly likely to increase the estimates of emission reductions in future monitoring periods



4.3 Compliance of monitoring activities with the registered monitoring plan

LRQA has confirmed that:

1. the monitoring plan and the applied methodology have been properly implemented and followed by the project participants
2. all parameters stated in the monitoring plan, the applied methodology and relevant CDM Executive Board decisions, have been sufficiently monitored and updated as applicable, including:
 - a. project emission parameters
 - b. baseline emission parameters
 - c. leakage parameters
 - d. management and operational system
3. the accuracy of equipment used for monitoring is in accordance with the relevant guidance provided by the CDM Executive Board and is controlled and calibrated in accordance with the monitoring plan
4. monitoring results are consistently recorded as per approved frequency
5. quality assurance and quality control procedures have been applied in accordance with the monitoring plan.

For details relating to this section, please refer to the Verification Protocol in Appendix C.

LRQA confirms that monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD.

The list in the Verification Protocol – Appendix C shows each parameter required by the monitoring plan, and clearly states how LRQA has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters, including the values in the monitoring report.

4.4 Compliance with the calibration frequency requirements for measuring instruments

LRQA has determined that the calibration of measuring equipment has been conducted at the frequency specified in the applied monitoring methodology and in the registered monitoring plan.

For details relating to the frequency of calibration and any cases identified of delayed calibration, please refer to the Verification Protocol in Appendix C.

4.5 Assessment of data and calculation of emission reductions

LRQA has determined whether:

1. a complete set of data for the specified monitoring period is available
2. information provided in the monitoring report has been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis
3. calculations of baseline emissions, proposed CDM project activity emissions and leakage, as appropriate, have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document



4. any assumptions used in emission calculations have been justified
5. appropriate emission factors, IPCC default values and other reference values have been correctly applied.

For details of whether data was not available because activity levels or non-activity parameters were not monitored in accordance with the registered monitoring plan, a description of LRQA cross-checked reported data, please refer to the Verification Protocol in Appendix C.

LRQA confirms that appropriate methods and formulae for calculating baseline emissions, projects emissions and leakage have been followed.

LRQA is of the opinion that all assumptions, emissions factors and default values that were applied in calculations have been justified.

5 Making the monitoring report publicly available

In accordance with the "Procedures for making the monitoring report available to the public in accordance with paragraph 62 of the modalities and procedures for the CDM", the monitoring report Version 01 dated 06/12/2012 was made publicly available on the CDM website on 06/12/2012 at:

<http://cdm.unfccc.int/Projects/DB/TUEV-SUED1306322299.73/iProcess/LRQA%20Ltd1354799680.96/view>



6 Certification report

LRQA has undertaken the first periodic verification of the proposed project activity “Abohar Branch Canal Based Small Hydro Project in Punjab, India” covering the monitoring period from 28/12/2011 to 30/11/2012 based on the requirements of CDM as set out in Article 12 of the Kyoto Protocol, the CDM M&P, the present annex, subsequent decisions made by the COP/MOP and CDM-EB, and the other rules applicable to the proposed project activity including the host country’s legislation and its specific requirements for sustainable development.

Through the verification process, the verification team identified 4 CARs and 3 CLs. The PP has taken actions to address the CARs and CL and submitted to LRQA the revised monitoring report Version 03 dated 13/06/2013 and any other supporting evidence. All CARs and CLs have been appropriately closed before the issuance of the verification report.

The verification team is of the opinion that the proposed project activity has been implemented in accordance with the registered PDD, the MP complies with the approved monitoring methodology, the monitoring complies with the MP and the monitored data and calculation of ERs are assessed and confirmed as correct. Therefore LRQA hereby certifies, and requests the issuance of, the reported ERs of “Abohar Branch Canal Based Small Hydro Project in Punjab, India” during the monitoring period of 28/12/2011 to 30/11/2012 amounting to 21,837 tCO₂e to the CDM Executive Board.

Decision Maker

Javier Vallejo Drehs
CDM Quality Manager
14th June 2013



7 Appendices

7.1 Appendix A: List of documents reviewed

Category A documents (documents from the PP)

1	Monitoring Report version 01, dated 06/12/2012, version 02 dated 16/05/2013 and version 03 dated 13/06/2013
2	Emission reduction calculation spread sheet version 01, dated 06/12/2012 and version 02, dated 16/05/2013
3	Copies of evidence for start of operation of the projects at Khanpur (1.1 MW) on 22/04/2010, Sudhar (1.4 MW) on 03/05/2010, Akhara (1.1 MW) on 25/03/2010, Gholian (0.8 MW) on 04/10/2009 and Channowal (0.9 MW) on 30/09/2009
4	Copies of monthly Joint Meter Reading (JMR) reports covering the monitoring period
5	Copies of monthly energy sales bills / invoices covering the monitoring period raised by PP
6	Calibration certificates for the electricity generation meters, auxiliary meters and main and check meters covering the period 28/12/2011 to 30/11/2012
7	Records of the gross electricity generation, auxiliary consumption and net exported electricity figures at the five sites of the project activity
8	Technical specifications of the hydro turbines and generators of rated capacities of Khanpur 1.1 MWe (550 kW x 2), Sudhar 1.4 MWe (700 kW x 2), Akhara 1.1 MW (550 kW x 2), Gholian 0.8 MW (800 kW x 1) and Channowal 0.9 MWe (900 kW x 1).
9	Data capturing and QA/QC procedures, roles and responsibilities of the company personnel for the project activity.
10	Proof of statutory clearances for the project activity.
11	Proof of training and competency of the project operators
12	Extract of Power Purchase Agreement for the project activity
13	Single line diagram showing the electricity generation, transmission, evacuation and metering system.
14	Declaration by PP confirming no diversion of Official Development Assistance (ODA) funds for the project activity was involved

Category B documents (other documents referenced)

1	Registered PDD version 06, dated 01/07/2011 available on the project page of UNFCCC project reference number 4856
2	Validation Report version 05, dated 28/12/2011 for the project activity available on the project page of UNFCCC project reference number 4856
3	Monitoring methodology AMS I.D, version 16
4	Validation and Verification Standard, version 03.0



7.2 Appendix B: Certificate of Appointment

Verification of "Abohar Branch Canal Based Small Hydro Project in Punjab, India"

We hereby certify that the following personnel have engaged in the verification process that has fully satisfied the competence requirements of the verification of the CDM project activity.

Name of Person

Sanjay Kumar Agarwalla
Syju Alias
Imran Ustad
Javier Vallejo Drehs

Assigned Roles

Team Leader, Sector Expert
Team Member, Sector Expert
Technical Reviewer, Sector Expert
Decision Maker

Signed by

Decision Maker

Javier Vallejo Drehs
CDM Quality Manager
14th June 2013

7.3 Appendix C: Verification Protocol and Findings

	Verified situation	Conclusion
SECTION 1. Project implementation in accordance with the registered PDD		
General description of the project		
1.1. Does the MR provide general information of the project and is it as registered by CDM-EB?	<p>Yes.</p> <p>The information provided in the Monitoring Report (Version 03 dated 13/06/2013) is consistent with the registered PDD available in the project page of UNFCCC.</p> <p>The project activity, "Abohar Branch Canal Based Small Hydro Project in Punjab, India" was registered as a CDM project on 28/12/2011 (UNFCCC Ref No.4856) applying the methodology AMS I.D, version 16 "Grid Connected Renewable Electricity Generation".</p> <p>The registered project comprises 5 mini hydroelectric projects of total installed capacity 5.3 MW located at Khanpur, Sudhar, Akhara, Gholian and Channowal, villages on the Abohar Branch Canal in the state of Punjab in India. The individual capacities of the projects are 1.10 MW (550 kW X 2) for Khanpur, 1.40 MW (700 kW X 2) for Sudhar, 1.10 MW (550 kW X 2) for Akhara, 0.8 MW (800 kW X 1) for Gholian and 0.9 MW (900 kW X 1) for Channowal and the electricity generated is exported to Punjab State Electricity Board (PSEB) through the NEWNE regional grid of India.</p> <p>Abohar Power Generation Private Limited is the project participant that commissioned the 5 mini hydroelectric projects as follows: at Khanpur on 22/04/2010; at Sudhar on 03/05/2010; at Akhara on 25/03/2010; at Gholian on 04/10/2009 and at Channowal on 30/09/2009. All these projects are low head canal drop based mini hydroelectric projects and are operating successfully since commissioning.</p> <p>The details of the project activity such as generator, turbine, transformer and its technical specification, and monitoring arrangement were compared with the project description given in the Monitoring report. The team confirms that with reference to</p>	<p>CAR-01</p> <p>CAR-04</p> <p>CL-01</p> <p>OK</p>

	Verified situation	Conclusion																																				
	<p>section A.1 of the webhosted MR version 01 dated 06/12/2012, the MR provides general information of the project in consistent with the registered PDD.</p> <p>However, CAR 01 was raised as the description of the installed technology (ies) and equipment; project boundary diagram and name of host party was not provided in the MR version 01 dated 06/12/2012. Also in the published MR, PP had not provided the exact dates of commissioning of the five sub projects and CL 01 was raised in this respect. CAR 04 was raised because the title of the project activity as stated in the MR did not match with the registered PDD. The CARs and the CL were closed after appropriate revisions in the MR. The resolutions of the above CARs and CL are detailed in the findings section of the report.</p>																																					
1.2. Is the Monitoring report as per the standardised format? (E70 Annex 11)	<p>Yes.</p> <p>The published MR version 01 dated 06/12/2012 has used the latest version of MR template version 03.0 available at the time of publication of the MR.</p>	OK																																				
1.3. Is there any open issue in the validation / previous verification including FARs? (CDM VVS para. 213)	No. There is no open issue in the validation and this is first periodic verification.	OK																																				
Implementation status of the project activity																																						
1.4. Is the project location indicated as the same as the registered PDD? Confirm geographical coordinates	<p>Yes.</p> <p>As per the registered PDD, the five installations, Khanpur, Sudhar, Akhara, Gholian and Channowal are located on the Abohar branch canal at the respective villages.</p> <p>The team reviewed the location specified in the MR with the PDD and the details are as given below:</p> <table> <tr> <th></th> <th>Khanpur</th> <th>Sudhar</th> <th>Akhara</th> <th>Gholian</th> <th>Channowal</th> </tr> <tr> <td>Latitude</td> <td>30.7859 N</td> <td>30.7675 N</td> <td>30.7612 N</td> <td>30.6608 N</td> <td>30.6439 N</td> </tr> <tr> <td>Longitude</td> <td>75.9073 E</td> <td>75.6469 E</td> <td>75.4931 E</td> <td>75.2147 E</td> <td>75.1055 E</td> </tr> <tr> <td>Village</td> <td>Khanpur</td> <td>Sudhar</td> <td>Akhara</td> <td>Gholian</td> <td>Channowal</td> </tr> <tr> <td>District</td> <td>Ludhiana</td> <td>Ludhiana</td> <td>Ludhiana</td> <td>Moga</td> <td>Moga</td> </tr> <tr> <td>State</td> <td>Punjab</td> <td>Punjab</td> <td>Punjab</td> <td>Punjab</td> <td>Punjab</td> </tr> </table>		Khanpur	Sudhar	Akhara	Gholian	Channowal	Latitude	30.7859 N	30.7675 N	30.7612 N	30.6608 N	30.6439 N	Longitude	75.9073 E	75.6469 E	75.4931 E	75.2147 E	75.1055 E	Village	Khanpur	Sudhar	Akhara	Gholian	Channowal	District	Ludhiana	Ludhiana	Ludhiana	Moga	Moga	State	Punjab	Punjab	Punjab	Punjab	Punjab	<p>CL-02</p> <p>OK</p>
	Khanpur	Sudhar	Akhara	Gholian	Channowal																																	
Latitude	30.7859 N	30.7675 N	30.7612 N	30.6608 N	30.6439 N																																	
Longitude	75.9073 E	75.6469 E	75.4931 E	75.2147 E	75.1055 E																																	
Village	Khanpur	Sudhar	Akhara	Gholian	Channowal																																	
District	Ludhiana	Ludhiana	Ludhiana	Moga	Moga																																	
State	Punjab	Punjab	Punjab	Punjab	Punjab																																	

	Verified situation						Conclusion
	Country	India	India	India	India	India	
	<p>However, the latitude and longitude of the five sites as stated in the MR version 01 were incorrect. CL 02 was raised in this respect. The CL was closed after appropriate revision in the MR and the resolution is detailed in the findings section of the report. The team confirms the correctness of the geographical coordinates in the revised MR after reviewing in "iTouchMap.com", a web based software application.</p>						
1.5. Is the project boundary described in the same way as the registered PDD? Please confirm each component based on the applied methodology.	<p>The description of the installed technology (ies), technical process and equipment, including project boundary diagram are not provided into the section B.1 of the published MR version 01 dated 06/12/2012. It is not in line with the Guideline for Completing the Monitoring Report Form (version 03.2). CAR 01 was raised in this respect and closed after the PP provided the project boundary diagram in section B.1 of the revised MR. Please refer findings section for the report for the closure of the CAR.</p>						CAR 01 OK
1.6. Has on-site fossil fuel consumption, if any, been monitored? Is any emission source missed? Check the site lay-out and confirm through site tour.	<p>The turbines run exclusively with hydro energy without any usage of fossil fuel and this was confirmed during the on-site visit.</p>						OK
1.7. Confirm contractors for equipment and installation works	<p>The hydro turbines used at all the five sites are supplied by Boving Fouress. This was confirmed during the on-site visit.</p>						OK

	Verified situation		Conclusion
	Applicability Conditions	Means of Verification and Results	
1.8. Confirm conformance with baseline and monitoring methodology - Applicability conditions. Please refer to the complete description of the applicability conditions and confirm that the project activity meets all the requirements.	1. <i>This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and renewable biomass, that supply electricity to a national or regional grid. Project activities that displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit shall apply AMS I.F.</i>	The project activity is generation and supply of hydro electricity to the NEWNE regional grid of India. Hence this applicability condition is satisfied.	OK
	2. <i>This methodology is applicable to project activities that (a) install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition¹; (c) involve a retrofit² of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s)</i>	The project activity is installation of a new power plant at a site where there was no renewable energy plant operating prior to the implementation of the project activity. Hence this applicability condition is satisfied.	
	3. <i>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</i> <ul style="list-style-type: none"> <i>• The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</i> <i>• The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m²;</i> 	The project activity is a canal based small hydro power plant and does not involve a reservoir.	

	Verified situation	Conclusion
	<ul style="list-style-type: none"> The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m2. 	
	4. In the case of biomass power plants, no other biomass types than renewable biomass are to be used in the project plant.	Not applicable for this project.
	5. If the new unit has both renewable and non-renewable components (e.g.. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit co-fires fossil fuel7, the capacity of the entire unit shall not exceed the limit of 15 MW.	Not applicable for this project.
	6. Combined heat and power (co-generation) systems are not eligible under this category.	Not applicable for this project.
	7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct8 from the existing units.	Not applicable for this project.
	8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the modified or retrofitted o replacement unit shall not exceed the limit of 15 MW.	Not applicable for this project.
	The team confirms that the project activity meets all the applicability criteria of the applied small scale methodology AMS I.D, Version 16.	
1.9. Confirm use or not use of public funding and determine if there is no diversion of ODA to the project activity.	In section A.4.4 of the registered PDD it has been stated “the project proponent hereby confirms that no Official Development (ODA) has been made available to the project activity”. The same was also validated and confirmed by the validating DOE. Moreover, the PP has submitted a declaration in this respect.	OK
1.10. Check data in the MR and in the PDD.	The ex-ante fixed grid emission factor of 0.8031 tCO2/MWh has been used for the baseline emission calculation which is line with the registered PDD.	OK

	Verified situation	Conclusion
Describe data and variables that are different from that stated in the registered PDD and caused an increase in emission reductions estimations.	PP is claiming emission reductions for 339 days (28/12/2011 to 30/11/2012) for this first monitoring period. As per the registered PDD, the ex-ante estimated annual emission reductions are 23,527 tCO ₂ e. Thus for 339 days, the estimated amount of emission reductions as per the registered PDD would be 21,851 tCO ₂ . The number of achieved CERs (22,837 tCO ₂) during the monitoring period is less than the projected CERs (21,851 tCO ₂) for the same period.	
<p>1.11. By means of an on-site visit:</p> <p>Is the general information of the project provided in the Monitoring report and is it as registered by CDM-EB?</p> <p>List each technical component and equipment and check design parameters and actual status of installation and / or operation.</p> <p>Please check to ensure that all physical features of the proposed CDM project activity in the registered PDD are in place and the PP has operated the proposed CDM project activity as per the registered PDD.</p> <p>It may include but not limited to:</p> <ul style="list-style-type: none"> the actual capacity and output plant load factor type of feedstock operation of other components / units within the project boundary which could affect functioning of the project plant. <p>In cases where there are a large number of components and equipment items and the check of all of them is not an available option, then a random sampling check shall be performed. Justify here the sample chosen and describe the results.²</p>	<p>Yes.</p> <p>The registered PDD specifies that the project comprises 5 mini hydroelectric power plants of total installed capacity 5.3 MW. The individual capacities of the 5 sites are 1.10 MW (550 kW X 2) for Khanpur, 1.40 MW (700 kW X 2) for Sudhar, 1.10 MW (550 kW X 2) for Akhara, 0.8 MW (800 kW X 1) for Gholian and 0.9 MW (900 kW X 1) for Channowal and the electricity generated is exported to Punjab State Electricity Board (PSEB).</p> <p>All the five mini hydroelectric projects are run of the river type that consist of forebay, intake gate, vertical Kaplan turbine, generator, power house with discharge channel and transformer.</p> <p>During the verification, by the observation of equipment, interviews with relevant staff and the checking of technical specifications of main components, it was confirmed that the project activity has been implemented as described in the registered PDD.</p> <p>The project is operational. The five sites of the project activity were commissioned as follows: Khanpur on 22/04/2010; Sudhar on 03/05/2010; Akhara on 25/03/2010; Gholian on 04/10/2009 and Channowal on 30/09/2009. The commissioning dates were confirmed from the plant records.</p> <p>No change from the registered PDD of physical features which may impact the emission reduction of the project activity has been identified.</p> <p>The name plates of the Turbine generators, Main Meter, Check Meter, site layout plan were verified and confirmed during the site visit. The verification team confirms all the physical features of the CDM project activity in the registered PDD are in place.</p>	OK

² The sampling shall be in line with the "Standard for sampling and surveys for CDM project activities and programme of activities"

	Verified situation	Conclusion
1.12. Have responsibilities for monitoring been described and specified?	<p>Yes.</p> <p>The monitoring report and CDM documents clearly describe the responsibilities for monitoring and this has been verified by the verification team during the on-site visit through interviews.</p> <p>As described in the monitoring report, the Project owner has made a CDM team and the responsibilities for operational personnel, technical and support team have been well defined. They are assigned the responsibility to measure, record and store the project activity data.</p> <p>The Energy exported and Energy imported at each of the sites is measured and is used to calculate the Net saleable energy. Monthly joint meter readings are taken at interconnection point at each of the five sites and certified by representatives of Abohar Power Generation Private Limited (APGPL) and Punjab State Electricity Board (PSEB). The joint meter readings are used to raise invoice for sale of net energy to PSEB. The energy generated and the auxiliary electricity consumption is measured and recorded on hourly basis which are summed into daily readings and monthly readings.</p> <p>At the end of each shift, the shift in-charge reviews all the recorded data and report to the concerned authority. Plant in-charge is responsible for reviewing, storing and archiving the data. The Plant in-charge is assisted by the Heads of Commercial & Finance, Civil Works and Electrical & Mechanical Department.</p>	OK
1.13. Are the responsibilities and authorities for monitoring and reporting in line with those stated in the registered monitoring plan?	<p>Yes.</p> <p>The responsibilities and authorities for monitoring and reporting are in line with the registered monitoring plan.</p>	OK
<p>1.14. Check QA/QC, management systems. Are procedures described and specified in the MR? Are they consistently applied as described in the MP?</p> <p>a. documented instructions, management manual</p> <p>b. documentation</p> <p>c. data archiving</p>	<p>Yes</p> <p>QA/QC procedures include staff training, instrument calibration, cross checking and emergency processing procedures and data/documents archiving. It is consistent with the monitoring plan.</p> <p>The Monitoring report describes the monitoring system, monitoring procedures, data collection and reporting, responsibilities of relevant staff/departments, emergency scheme, calibrations that were implemented and QA/QC procedures including data cross checking.</p>	CAR-02 OK

	Verified situation	Conclusion
d. monitoring report e. cross-checking f. energy balance analysis (as relevant) g. internal audits / verification and management review	<p>The export and import electricity for each of the five sub projects is monitored by joint meter readings by the bidirectional type energy meters installed at the grid interconnection point at the respective sites every month and recorded. Based on the data recorded net electricity supplied to the grid is calculated as the difference of export and import electricity and monthly bill / invoice are raised by the project proponent to PSEB (Punjab State Electricity Board) for payments against net electricity supply to grid. The same is considered as net electricity generated (EG_y) by the project activity, as mentioned in the monthly bills / invoice for calculation of GHG emission reductions by the project activity. Also as described in the QA/QC procedures of the registered PDD in section B.7.1 and also the monitoring methodology, the PP has monitored and recorded the gross generation and auxiliary consumption data for cross-checking purpose in the plant log books.</p> <p>During the site visit, through interviews with the relevant staff and the document review, the management system was found to be in place and the implementation of QA/QC procedures could be confirmed.</p> <p>However, CAR 02 was raised as the MR version 01 did not state clearly the respective dates of calibration of the meters; the details of the check meters have not been provided; QA/QC procedures are not stated in line with the registered PDD in version 01 of the MR in line with the registered PDD / monitoring methodology; data archiving procedure has not been stated.</p> <p>The CAR was closed after appropriate revisions in the MR. For the detailed closure of the CARs, findings section of the report may be referred.</p>	
1.15. Have the procedures for emergency and abnormal situations been established?	<p>Emergency procedures are established as per the registered PDD. However, it was not captured in the published MR version 01. CL 03 was raised in this respect and closed after appropriate revision in section C of the revised MR. For the details of the CL and its closure; please refer to findings section of the report.</p> <p>During this monitoring period, the check meters for the Gholian site was decisive for billing from 22/12/2011 to 21/02/2012 as the main meter for this site was malfunctioning during this period. This is in line with the registered PDD and also the PPAs. However, this was not transparently stated in the published MR and hence CAR 02 was raised. The CAR was closed after providing this information in the revised MR. Please refer to findings section of this report for the details of the closure of this part of</p>	CL-03 CAR-02 OK

	Verified situation	Conclusion	
	the CAR.		
1.16. Has the system for qualification and training been established as relevant for the monitoring and management activities?	The training and qualification of the project personnel to be confirmed during interview of the operational personnel. It is confirmed that they have sufficient knowledge, experience and competency to implement and maintain the plant operation including data monitoring and recording in line with normal industrial norms and CDM requirements.	OK	
1.17. Check the environmental report, license, permit and compliance to the local environmental legislation (if relevant).	The verification team has confirmed that the project meets the relevant local environmental legislation. The verification team reviewed the copies of the consent to operate issued by Punjab Pollution Control Board.	OK	
1.18. Check contribution to sustainable development, comparing those expected in PDD and the actual status.	The Project is now supplying renewable power to the grid and has resulted in employment for local people, as confirmed during the site visit by the interviews with the local stakeholders, and thus contributing to sustainable development.	OK	
1.19. Check issues with local stakeholders, claims, complaints, etc.	No issues with local stakeholders were identified during the site visit.	OK	
1.20. If from the above assessment the conclusion is that the implementation or operation of the project activity does not conform with the description contained in the registered PDD and/or corrections have been made to project information or parameters fixed at validation, determine if these changes and/or corrections do not require prior approval by the board: <ul style="list-style-type: none">- Any corrections to project information of a registered CDM project activity that do not affect the design of the project activity do not require prior approval by the Board.- A request for approval is required if any of the three issues below is adversely impacted by the identified changes to the project design.			
1.21. The applicability and application of the applied methodology under which the project activity has been registered: Check if the project boundary has changed and if any of the parameters to assess the applicability conditions have changed.	The project activity still holds the applicability conditions of the applied methodology AMS I.D, version 16 during the registration. The project boundary and the applicability conditions have not changed.	YES	NO
		-	No
1.22. The additionality of the project activity: Check if any of the input parameters to the investment analysis have changed. For barrier analysis, check if any information or data used in the barrier analysis has changed.	There is no change in the project design parameters as the project is implemented as per the registered PDD.	YES	NO
		-	No

	Verified situation	Conclusion	
1.23. The scale of the project activity. Check if the project is still small scale or large scale after the implementation of the changes.	The project activity is 5.3 MW renewable energy generation and supply to grid. Hence the scale of the project activity still small scale and is not changed.	YES	NO
		-	No
If the answer to any of the above items is YES, please conduct an assessment of the potential impacts of these changes following the Procedures for Post Registration Changes.			
1.24. If, from the above assessment, the conclusion is that the changes require prior approval by the EB in accordance with the PS, please check any approvals of the necessary request for approval of changes.	Not applicable	-	

	Verified Situation	Conclusion
SECTION 2. Compliance of the Monitoring Plan with the Monitoring Methodology including applicable Tool(s)		
2.1. Is the monitoring plan (registered or approved) in accordance with the applied methodology?	Yes. The monitoring plan is in accordance with the approved methodology AMS 1.D, Version 16.	OK
2.2. If the methodology provides different options (for example, use of default values or on-site measurements), has the Monitoring Report specified which option is used?	Yes. When calculating grid emission factors used for baseline emission, the methodology AMS-I.D, version 16 provides two options, namely ex-ante calculation or ex-post calculation. The registered PDD has selected the ex-ante option and the calculation results are fixed for the whole crediting period and the MR has specified the same. The emission factor fixed ex-ante for the project has the value 0.8031 tCO ₂ e/MWh as per the registered PDD. Hence no uncertainty involved with the default values used for this reporting period.	OK
2.3. Is all data collected and archived according to the tables in the applied Monitoring Methodology and is this included in the Monitoring Plan?	Yes, all the data is collected and archived in accordance with the methodology and included in the monitoring plan. All the data will be archived until 2 years after the end of crediting period or the last issuance of CERs for this project activity, whichever occurs later. The data are archived manually and in electronic form.	OK
2.4. Check the calculation of emission reductions following the applied methodology: <ul style="list-style-type: none"> • baseline emissions • project emissions • leakage • emission reductions of the project. 	<p>The calculation of the emission reductions as per the applied methodology, AMS-I.D, version 16 and applied for the project activity are as follows:</p> <p><u>Baseline emissions:</u></p> <p>The baseline emissions are calculated by multiplying the electricity supplied by the project activity to the grid during with the grid emission factor.</p> $BE_y = EG_y * EF_{grid,co2,y}$ <p>Where, BE_y = Baseline emissions for the year y EG_y = Electricity supplied by the project activity to the grid (MWh) in the year y EF_{grid,co2,y} = Combined margin CO₂ emission factor for grid connected power</p>	OK

	Verified Situation	Conclusion
	<p>generation in year y (tCO₂/MWh)</p> <p><u>Project emissions:</u> As the project activity is a run-of-river renewable energy plant, as per the monitoring methodology and the registered PDD, no project emissions are considered for the project activity.</p> <p>$PE_y = 0$</p> <p><u>Leakage:</u> As the energy generating equipment is not transferred from another activity, as per the monitoring methodology and the registered PDD, no leakage emissions are considered for the project activity.</p> <p>$LE_y = 0$</p> <p>Hence emission reductions for the project activity are calculated as follows:</p> <p>$ER_y = BE_y - PE_y - LE_y$ $= BE_y$</p>	
<p>2.5. List any monitoring aspect that is not specified in the methodology and check its compliance with the Monitoring Plan, for example:</p> <ul style="list-style-type: none"> • additional monitoring parameters • monitoring frequency • calibration frequency. 	<p>No additional monitoring parameter is identified that is not specified in the approved methodology and the registered PDD available in the project page in UNFCCC website.</p> <p>Monitoring frequency and the calibration frequency specified are not less than the requirements of the approved methodology and the monitoring plan in the registered PDD.</p>	OK

	Verified Situation	Conclusion
SECTION 3. Compliance of Monitoring activities with the registered Monitoring Plan		
<p>3-1. Is the Monitored Data included in the Monitoring Report as per the Monitoring Plan or any accepted revised MP?</p> <p>3-2. Has the data been generated at the frequency required by the Monitoring Plan or any accepted revised MP?</p>	<p>Yes.</p> <p>The monitoring plan requires measurement of electricity supplied by the project activity to the grid.</p> <p>The values are indicated in section D.2 of the Monitoring report. At site visit, it was verified that data was generated at the required frequency as per the monitoring plan in the registered PDD.</p> <p>However, CAR 02 was raised due to the following discrepancies found in section D.2 of the published MR version 01:</p> <ul style="list-style-type: none"> i) The values of the export / import / net electricity supplied to the grid, do not match exactly with the JMRs provided. ii) Details of the check meters have not been provided in the MR. For some period, the check meter was decisive for JMRs and it was not stated in the MR. <p>CAR 02 was closed after the following corrections made in the revised MR:</p> <ul style="list-style-type: none"> i) The export / import / net electricity values were corrected matching with the JMR. ii) Details of the check meters used during the monitoring period have been provided in the revised MR. <p>For the detailed resolution of the CAR, findings section of the report may be referred.</p>	<p>CAR-02 OK</p>
<p>3-3. Has the monitoring been implemented in accordance with the monitoring plan contained in the registered PDD or any accepted revised MP? Confirm that the monitoring and reporting procedures have been implemented as documented and follow by PPs.</p>	<p>Yes.</p> <p>Electrical energy exported and imported by the project activity is measured continuously using bi directional tri-vector energy meters installed. The monthly joint meter readings are taken and signed by the officials of APGPL and PSEB. These readings form the basis for billing and ER calculations.</p> <p>Electricity generated and auxiliary consumption are monitored continuously and</p>	<p>OK</p>

	<p>recorded hourly in the log books by the shift in charge for all the five sites. These data are compiled to generate daily and monthly data which is cross verified by plant manager.</p> <p>It was confirmed during the site visit from the log sheets that daily and monthly recording of the monitoring parameter as required in the registered monitoring plan is done correctly. It was confirmed that the information of the meters as described in the Monitoring report are as per the monitoring plan.</p>	
3-4. Have types of measurement instrumentation used been described and specified?	<p>Yes, section C of the MR describes the types of measurement instrumentation used. As per the registered PDD, the accuracy of all meters would be of 0.5 or better.</p> <p>The verification team confirmed through on-site visit and the review of evidence that the installation of the measuring devices has been completed and the equipment have been operated and maintained in a normal operating conditions. The accuracy class of the main meters / check meters and generation and auxiliary energy meters used for monitoring was found to be of 0.5 (except the main / check meters replaced during January to March 2013 for all the five sites were of accuracy class 0.2 which is better than 0.5. For details of the meters, please refer to section 3.19 below). The verification team confirms that the installed meters for measurement and monitoring is in agreement with what is stated in the registered monitoring plan.</p> <p>However, CAR 02 was raised for the following:</p> <ul style="list-style-type: none"> i) During the monitoring period, the energy meters for monitoring of the export / import energy were changed once. Although the two sets of meters were reflected in the published MR, the period of usage of the respective meters was not shown. ii) Details of the check meters were not provided in the MR. During the on site visit and document review it was found that for the Gholian site, the main meter was not functional from 22/12/2011 to 21/02/2012 and during this period the check meter for this site was decisive for JMR for export and import readings and billing. This was not stated in the MR. iii) Make of generation meter as stated in the published MR was incorrect. <p>In response to the CAR raised, PP submitted revised MR stating the service period of the meters. In the revised MR, PP has also stated that for the Gholian site for the period 22/12/2011 to 21/02/2012, check meter was decisive for billing. Make of the generation meters has been corrected to EI-Measure.</p>	CAR-02 OK

	<p>Hence the CAR was closed</p> <p>For details of the closure of the CAR, please refer to findings section of the report.</p>	
<p>3-5. Is the accuracy of equipment used for monitoring sufficient and regularly controlled and calibrated in line with the registered monitoring plan or any accepted revised MP?</p> <p>Check relevance of maintenance and calibration included in the monitoring plan.</p> <p>Check relevance of laboratory analysis if included in the monitoring plan.</p>	<p>Yes.</p> <p>As per the registered PDD the accuracy class of the main meters / check meters and generation and auxiliary energy meters should be 0.5 or better. The accuracy class of the main energy meters used in the project activity complies with this requirement.</p> <p>Review of the calibration records submitted for verification assures that calibration of the main and check meters used for monitoring export and import energy is once in every two years and that of the generation and auxiliary meters is once annually and this is in line with the registered PDD. Also the calibration of the gross generation meters was done by MMTS (Meter Mobile Testing Squad), a division of PSEB (Punjab State Electricity Board). PSEB is statutory body under the Indian Electricity Act 1948 and owned by the Government of Punjab and hence deemed to be competent. The generation meters and auxiliary meters were calibrated by Neno Technical Services / Advance Control System who are accredited and registered by National Accreditation Board for Testing and Calibration Laboratories (NABL), Govt. of India, to do the calibration of energy meters and hence deemed to be competent.</p> <p>The verification team confirms that there is no relevance of laboratory analysis included in the monitoring plan as per the registered PDD.</p> <p>However, CAR 02 was raised as the accuracy class of the main meter as stated in the published MR as +/-0.5% was incorrect. Also PP had not provided the accuracy class of the two sets of export / import meters used during the monitoring period. Further the accuracy class of the auxiliary meters as stated in the published MR as 1% was found to be incorrect. The CAR was closed after correcting the accuracy class of the meters and also providing the accuracy class of two sets of meters separately in the revised MR. For details of the CAR and its closure, please refer to the findings section of the report.</p>	<p>CAR-02</p> <p>OK</p>
<p>3-6. Check that responsibilities and authorities for monitoring and reporting are in line with the monitoring plan.</p> <p>Are the monitoring results consistently recorded,</p>	<p>Yes.</p> <p>During the site visit, monitoring and reporting procedures were confirmed by the verification team through interview with the relevant staff and by document review. The monitoring results were consistently recorded, reviewed and</p>	<p>CAR-03</p> <p>OK</p>

<p>reviewed and approved as stated in the PDD or any accepted revised MP?</p>	<p>approved as stated in the registered PDD.</p> <p>However, CAR 03 was raised due to mismatch of the following reported data in the published MR, version 01, dated 06/12/2012:</p> <ul style="list-style-type: none"> i) Electricity generation values for Khanpur site for September 2012 and Gholian site for October 2012. ii) Auxiliary consumption for Khanpur site for the months of January and July 2012 and for Akhara site for the months of July and August 2012 iii) The values of the export / import electricity as reported in Annexure III of the published MR do not match exactly with the respective JMRs for many of the months. <p>The CAR was closed after stating the correct respective values of the monitored parameters as per the plant records / JMRs. Please refer findings section of the report for further details.</p>	
<p>3-7. Reporting period: Defined?</p> <p>If a monitoring period of a parameter more / less than a year is applied, check if the monitoring is in a complete and consistent manner?</p>	<p>Yes.</p> <p>This monitoring period is from 28/12/2011 to 30/11/2012 (both days inclusive). The monitoring period is less than a year (339 days) and the verification team by means of review of the emission reduction sheet and monitoring record such as hourly electricity generation log, joint meter readings and sold electricity records confirm that the monitoring is done in a complete and consistent manner.</p> <p>However, CAR 02 was raised as follows:</p> <ul style="list-style-type: none"> i) This monitoring period covers from 28/12/2011 to 30/11/2012. PP needs to justify with evidence how the Joint Meter Reading was done for the period 28/12/2011 to 31/12/2011. ii) Whilst the first monitoring period ends on 30/11/2012, the JMRs being referred for the month of November 2012 ends as below: Khanpur: 03/12/2012 Sudhar: 03/12/2012 Akhara: 03/12/2012 Gholian: 01/12/2012 Channowal: 01/12/2012 <p>In response to the CAR raised, PP has revised the MR and ER spread sheet as follows:</p>	<p>CAR-02 OK</p>

	<p>i) For the month of December 2011, as the part JMR for the period 28/12/2011 to 31/12/2011 is not available, PP has not considered any emission reductions for this period. This is conservative and hence deemed acceptable by the verification team.</p> <p>ii) PP has deducted from the export electricity values for the month of Nov 2012 the electricity generated for 01/12/2011, 02/12/2011 and 03/12/2011 for Khanpur, Sudhar & Akhara sites as the JMRs for these sites for the month of Nov 2012 was taken on 03/11/2012. Similarly deduction for Ghloian and Channowal sites is made for 01/12/2012 as the JMR was taken on 01/12/2012 for these sites. The daily generation data is recorded by the PP at the respective plant sites from the gross generation meters. This deduction is found to be conservative and deemed acceptable by the verification team. Hence the CAR was closed. Please refer to the findings section of the report for the detailed closure of the CAR.</p>	
3-8. If the monitoring plan includes the determination of environmental and / or social indicators, have the sustainable development indicators been monitored in accordance with the registered monitoring plan?	Not Applicable.	-
<p>3-9. Check monitoring of Environmental and Social indicators (if relevant)</p> <ul style="list-style-type: none"> • implementation of measures • monitoring equipment • quality assurance procedures • external data. 	Not Applicable.	-

		Verified Situation		Conclusion	
SECTION 2 and 3: Post Registration Changes					
<p>3-10. If, from the above assessment in SECTIONS 2 and 3, the conclusion is that there are temporary deviations or permanent changes from the registered Monitoring Plan or Monitoring Methodology, determine if these deviations or changes require prior approval by the EB by answering the questions below.</p> <p>All the answers to the applicable questions below shall be explained and the reasons for each conclusion given in the "Verified situation" column.</p>					
<p>Temporary deviations from the registered monitoring plan or applied methodology:</p> <p>Prior approval by the EB is <u>not</u> required if the answer to the applicable questions below is YES.</p>					
3-11. Have the PPs reported as zero any parameter related to baseline GHG emissions that they have temporarily failed to monitor or for which they are unable to produce evidence related to such monitoring?	Not applicable		YES	NO	
			-	-	
3-12. Have the PPs estimated (assuming that the source of the GHG emissions operated at maximum capacity for the full period of the missing data) any parameter that they have temporarily failed to monitor or for which they are unable to produce evidence related to such monitoring?	Not applicable		YES	NO	
			-	-	
<p>For project GHG emissions related to the consumption of electricity, the estimate shall include an addition of 10% to account for transmission and distribution losses.</p>					
Permanent changes from the registered monitoring plan or applied methodology					
<p>If the monitoring equipment actually installed has a lower accuracy level than the accuracy stipulated in the applied methodology and/or in the registered monitoring plan, and the monitoring equipment is under the control of the project participants, prior approval by the EB is <u>not</u> required if the answer to the applicable questions below is YES:</p>					
3-13. Have the PPs deducted from the measured value,	Not applicable		YES	NO	

	Verified Situation	Conclusion	
for any parameter used for calculating baseline GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan?		-	-
3-14. Have the PPs added to the measured value, for any parameter used for calculating project GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan?	Not applicable	YES	NO
		-	-
Changes to the monitoring of the registered CDM project activity of a type listed below do not require approval by the EB. Confirm in the conclusion column that the change is of the type in the table below and explain the reasons.			
3-15. Change of calibration frequency or practice for monitoring equipment not within the control of project participants	Not applicable	-	
3-16. Change of accuracy / type / model of meter(s) as per a power purchase agreement (PPA)	Not applicable	-	
3-17. Change of location of meter(s) as per a power purchase agreement (PPA)	Not applicable	-	
If the answer to any of the above items has been that approval from the EB is required, please conduct an assessment of the potential impacts of these changes following the Procedures for Post Registration Changes.			
3-18. If, from the above assessment, the conclusion is that the temporary deviations or permanent changes require prior approval by the EB in accordance with the PS, please check any approvals of the necessary request for approval of changes.	Not applicable	-	

3.19 Monitoring Parameters and Calibration Checklist:

Complete the following table for each parameter:

Data / Parameter (as in the MP)		Electricity exported by the project activity in year y “EG _{export,y} ” (MWh)					
Value	Ex ante	-					
	Ex-post	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
		6,160.323	6,015.100	5,629.114	4,636.362	4,798.219	27,239.118
Measuring frequency		Continuous monitoring					
Reporting frequency		Monthly					
Is the measuring and reporting frequency in line with the MP and the Monitoring Methodology?		Yes					
Recording (Manually / electronically / ...)		Manually and Electronically					
QA/QC How are values verified? (Cross-checked, double-checked,...)		Meters are calibrated once in every two years. The data is cross checked with the invoices raised.					
Type of Monitoring Equipment and Identification number or Reference in the PDD		Bi directional Electronic Tri-vector meters (Energy Meter for export and import) installed at the grid-connected points for each of the five sites separately to measure the amount of electricity supplied to the grid by the project					
Is accuracy of the monitoring equipment as stated in the PDD? If not stated in the PDD, does it represent good monitoring practices?		Yes. Accuracy of both main meters and check meters is 0.5 / 0.2 consistent with the registered PDD (details provided below)					
Period of operating time		28/12/2011 to 30/11/2012					
Instrument type		Bidirectional Trivector energy meter					

Data / Parameter (as in the MP)	Electricity exported by the project activity in year y “EG _{export,y} ” (MWh)					
Manufacturer, model and serial number	Manufacturer L&T Serial numbers; Accuracy; Period in service:					
		Khanpur	Sudhar	Akhara	Gholian	Channowal
	Main Meter	Sr. No. - 07348791 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 28/02/2012	Sr. No. - 07348774 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/02/2012	Sr. No. - 07348776 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/01/2012	Sr. No. - 3174965 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 21/02/2012	Sr. No. - 5293343; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 01/03/2012
		Sr. No. - 11069548 ; Accuracy Class - 0.2 ; Period in Service: 28/02/2012 to 30/11/2012	Sr. No. - 11071246; Accuracy Class - 0.2 ; Period in Service: 25/02/2012 to 30/11/2012	Sr. No. - 11071253; Accuracy Class - 0.2 ; Period in Service: 25/01/2012 to 30/11/2012	Sr. No. - 11071244; Accuracy Class - 0.2 ; Period in Service: 21/02/2012 to 30/11/2012	Sr. No. - 11071251; Accuracy Class - 0.2 ; Period in Service: 01/03/2012 to 30/11/2012
	Check Meter	Sr. No. - 07348781 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 28/02/2012	Sr. No. - 07348749 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/02/2012	Sr. No. - 07348783 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/01/2012	Sr. No. - 4187460 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 21/02/2012	Sr. No. - 4223072 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 01/03/2012
		Sr. No. - 11069549 ; Accuracy Class - 0.2 ; Period in Service: 28/02/2012 to 30/11/2012	Sr. No. - 11071247; Accuracy Class - 0.2 ; Period in Service: 25/02/2012 to 30/11/2012	Sr. No. - 11071254; Accuracy Class - 0.2 ; Period in Service: 25/01/2012 to 30/11/2012	Sr. No. - 11071259; Accuracy Class - 0.2 ; Period in Service: 22/02/2012 to 30/11/2012	Sr. No. - 11071261; Accuracy Class - 0.2 ; Period in Service: 01/03/2012 to 30/11/2012
Specific location	Main meters are installed at the respective project sites (after 415 V/11kV transformer) and the check meters are installed at the respective PSEB sub stations of the projects					

Data / Parameter (as in the MP)	Electricity exported by the project activity in year y “EG _{export,y} ” (MWh)					
Calibration dates		Khanpur	Sudhar	Akhara	Gholian	Channowal
	Main Meter	Sr. No. - 07348791; Calibration date (valid till): 18/10/2011 (valid till 17/10/2013) & 03/01/2012 (valid till 02/01/2014)	Sr. No. - 07348774; Calibration date (valid till): 01/08/2011 (valid till 31/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 07348776; Calibration date (valid till): 29/07/2011 (valid till 28/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 3174965; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)	Sr. No. - 5293343; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)
		Sr. No. - 11069548; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 27/06/2012 (valid till 26/06/2014) & 10/12/2012 (valid till 09/12/2014)	Sr. No. - 11071246; Calibration date (valid till): 19/12/2011 (valid till 18/11/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071253; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071244; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)	Sr. No. - 11071251; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)
	Check Meter	Sr. No. - 07348781; Calibration date (valid till): 18/10/2011 (valid till 17/10/2013) & 10/02/2012 (valid till 09/02/2014)	Sr. No. - 07348749; Calibration date (valid till): 01/08/2011 (valid till 31/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 07348783; Calibration date (valid till): 29/07/2011 (valid till 28/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 4187460; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)	Sr. No. - 4223072; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)
		Sr. No. - 11069549; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 27/06/2012 (valid till 26/06/2014) & 10/12/2012 (valid till 09/12/2014)	Sr. No. - 11071247; Calibration date (valid till): 19/12/2011 (valid till 18/11/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071254; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071259; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)	Sr. No. - 11071261; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)
Company performing the calibration	Punjab State Electricity Board					
Required calibration frequency: Is it in line with the MP? Or represent good monitoring practices?	Once in 2 years					

Data / Parameter (as in the MP)	Electricity exported by the project activity in year y “EG _{export,y} ” (MWh)
Is calibration valid for the whole reporting period?	Yes
Maintenance	The meters are under sealed conditions and remain under the custody of PSEB. The meters have functioned well during the monitoring period.
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Yes
Key reporting risks	Low risk. The meters are also the resettlement meter for the grid company and the PP. It was installed, maintained and calibrated according to the relevant industry standard.

Data / Parameter (as in the MP)		Electricity imported by the project activity in year y “EG _{import,y} ” (MWh)					
Value	Ex ante	-					
	Ex-post	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
		8.708	9.630	12.244	7.472	9.239	47.293
Measuring frequency		Continuous monitoring					
Reporting frequency		Monthly					
Is the measuring and reporting frequency in line with the MP and the Monitoring Methodology?		Yes					
Recording (Manually / electronically / ...)		Manually and Electronically					
QA/QC How are values verified? (Cross-checked, double-checked,...)		Meters are calibrated once in every two years. The data is cross checked with the invoices raised.					
Type of Monitoring Equipment and Identification number or Reference in the PDD		Bi directional Electronic Tri-vector meters (Energy Meter for export and import) installed at the grid-connected points for each of the five sites separately to measure the amount of electricity supplied to the grid by the project					
Is accuracy of the monitoring equipment as stated in the PDD? If not stated in the PDD, does it represent good monitoring practices?		Yes. Accuracy of both main meters and check meters is 0.5 / 0.2 consistent with the registered PDD (details provided below)					
Period of operating time		28/12/2011 to 30/11/2012					
Instrument type		Bidirectional Trivector energy meter					

Data / Parameter (as in the MP)	Electricity imported by the project activity in year y “EG _{import,y} ” (MWh)					
Manufacturer, model and serial number	Manufacturer L&T Serial numbers; Accuracy; Period in service:					
		Khanpur	Sudhar	Akhara	Gholian	Channowal
	Main Meter	Sr. No. - 07348791 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 28/02/2012	Sr. No. - 07348774 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/02/2012	Sr. No. - 07348776 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/01/2012	Sr. No. - 3174965 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 21/02/2012	Sr. No. - 5293343; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 01/03/2012
		Sr. No. - 11069548 ; Accuracy Class - 0.2 ; Period in Service: 28/02/2012 to 30/11/2012	Sr. No. - 11071246; Accuracy Class - 0.2 ; Period in Service: 25/02/2012 to 30/11/2012	Sr. No. - 11071253; Accuracy Class - 0.2 ; Period in Service: 25/01/2012 to 30/11/2012	Sr. No. - 11071244; Accuracy Class - 0.2 ; Period in Service: 21/02/2012 to 30/11/2012	Sr. No. - 11071251; Accuracy Class - 0.2 ; Period in Service: 01/03/2012 to 30/11/2012
	Check Meter	Sr. No. - 07348781 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 28/02/2012	Sr. No. - 07348749 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/02/2012	Sr. No. - 07348783 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 25/01/2012	Sr. No. - 4187460 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 21/02/2012	Sr. No. - 4223072 ; Accuracy Class - 0.5 ; Period in Service: 28/12/2011 to 01/03/2012
		Sr. No. - 11069549 ; Accuracy Class - 0.2 ; Period in Service: 28/02/2012 to 30/11/2012	Sr. No. - 11071247; Accuracy Class - 0.2 ; Period in Service: 25/02/2012 to 30/11/2012	Sr. No. - 11071254; Accuracy Class - 0.2 ; Period in Service: 25/01/2012 to 30/11/2012	Sr. No. - 11071259; Accuracy Class - 0.2 ; Period in Service: 22/02/2012 to 30/11/2012	Sr. No. - 11071261; Accuracy Class - 0.2 ; Period in Service: 01/03/2012 to 30/11/2012
Specific location	Main meters are installed at the respective project sites (after 415 V/11kV transformer) and the check meters are installed at the respective PSEB sub stations of the projects					

Data / Parameter (as in the MP)	Electricity imported by the project activity in year y “EG _{import,y} ” (MWh)					
Calibration dates		Khanpur	Sudhar	Akhara	Gholian	Channowal
	Main Meter	Sr. No. - 07348791; Calibration date (valid till): 18/10/2011 (valid till 17/10/2013) & 03/01/2012 (valid till 02/01/2014)	Sr. No. - 07348774; Calibration date (valid till): 01/08/2011 (valid till 31/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 07348776; Calibration date (valid till): 29/07/2011 (valid till 28/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 3174965; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)	Sr. No. - 5293343; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)
		Sr. No. - 11069548; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 27/06/2012 (valid till 26/06/2014) & 10/12/2012 (valid till 09/12/2014)	Sr. No. - 11071246; Calibration date (valid till): 19/12/2011 (valid till 18/11/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071253; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071244; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)	Sr. No. - 11071251; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)
	Check Meter	Sr. No. - 07348781; Calibration date (valid till): 18/10/2011 (valid till 17/10/2013) & 10/02/2012 (valid till 09/02/2014)	Sr. No. - 07348749; Calibration date (valid till): 01/08/2011 (valid till 31/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 07348783; Calibration date (valid till): 29/07/2011 (valid till 28/07/2013) & 18/01/2012 (valid till 17/01/2014)	Sr. No. - 4187460; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)	Sr. No. - 4223072; Calibration date (valid till): 07/09/2011 (valid till 06/09/2013)
LRQA Reference: MUM-0061941 MSBSF43848		Sr. No. - 11069549; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 27/06/2012 (valid till 26/06/2014) & 10/12/2012 (valid till 09/12/2014)	Sr. No. - 11071247; Calibration date (valid till): 19/12/2011 (valid till 18/11/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071254; Calibration date (valid till): 23/12/2011 (valid till 22/12/2013) 22/06/2012 (valid till 21/06/2014) & 17/12/2012 (valid till 16/12/2014)	Sr. No. - 11071259; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)	Sr. No. - 11071261; Calibration date (valid till): 19/12/2011 (valid till 18/12/2013) 19/06/2012 (valid till 18/06/2014) & 13/12/2012 (valid till 12/12/2014)
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Data / Parameter (as in the MP)	Electricity imported by the project activity in year y “EG _{import,y} ” (MWh)
Company performing the calibration	Punjab State Electricity Board
Required calibration frequency: Is it in line with the MP? Or represent good monitoring practices?	Once in 2 years
Is calibration valid for the whole reporting period?	Yes
Maintenance	The meters are under sealed conditions and remain under the custody of PSEB. The meters have functioned well during the monitoring period.
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Yes
Key reporting risks	Low risk. The meters are also the resettlement meter for the grid company and the PP. It was installed, maintained and calibrated according to the relevant industry standard.

Data / Parameter (as in the MP)		Net electricity exported by the project activity to the grid “EG _{Net,y} ” (MWh)					
Value	Ex ante	Not applicable					
	Ex-post	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
		6,151.615	6,005.470	5,616.870	4,628.890	4,788.980	27,191.825
Measuring frequency		The data is calculated as the difference of measured export and import energy					
Reporting frequency		Monthly					
Is the measuring and reporting frequency in line with the MP and the Monitoring Methodology?		Yes					
Recording (Manually / electronically / ...)		Manually and Electronically					
QA/QC How are values verified? (Cross-checked, double-checked,...)		The data is calculated from Energy exported and Energy imported. Net power supplied by the project, which is data source for CER calculation, is taken from the monthly reports (JMRs). The readings are cross checked with the monthly energy sales bills.					
Type of Monitoring Equipment and Identification number or Reference in the PDD		Not Applicable since the data is calculated.					
Is accuracy of the monitoring equipment as stated in the PDD? If not stated in the PDD, does it represent good monitoring practices?		Not applicable					
Period of operating time		28/12/2011 to 30/11/2012					

Data / Parameter (as in the MP)	Net electricity exported by the project activity to the grid "EG _{Net,y} " (MWh)
Instrument type	Not applicable
Manufacturer, model and serial number	Not applicable
Specific location	Not applicable
Calibration dates	Not applicable
Company performing the calibration	Not applicable
Required calibration frequency: Is it in line with the MP? Or represent good monitoring practices?	Not applicable
Is calibration valid for the whole reporting period?	Not applicable
Maintenance	Not applicable
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Yes
Key reporting risks	Low risk. It is based on calculations and transpositions errors are cross checked at each entry.

Data / Parameter (as in the MP)		Gross electricity generation by the project activity “EG _{Gross,y} ” (MWh)						Auxiliary electricity consumption used by the project activity “EG _{Aux,y} ” (MWh)					
Value	Ex ante	-						-					
	Ex-post	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
		6,466.117	6,410.873	5,877.039	4,994.587	5,042.224	28,790.840	60.579	62.215	64.517	46.270	47.695	281.276
Measuring frequency		Continuous monitoring						Continuous monitoring					
Reporting frequency		Hourly						hourly					
Is the measuring and reporting frequency in line with the MP and the Monitoring Methodology?		Yes						Yes					
Recording (Manually / electronically / ...)		Manually and Electronically						Manually and Electronically					

Data / Parameter (as in the MP)	Gross electricity generation by the project activity “EG _{Gross,y} ” (MWh)						Auxiliary electricity consumption used by the project activity “EG _{Aux,y} ” (MWh)					
QA/QC How are values verified? (Cross-checked, double-checked,...)	Energy generated at each of the five sites is measured by duly calibrated energy meters at an annual frequency.						Auxiliary energy consumed at each of the five sites is measured by duly calibrated energy meters at an annual frequency.					
Type of Monitoring Equipment and Identification number or Reference in the PDD	Energy meters						Energy meters					
Is accuracy of the monitoring equipment as stated in the PDD? If not stated in the PDD, does it represent good monitoring practices?	Accuracy of the generation meters is 0.5 for all the five sites and it is line with the registered PDD.						Accuracy of the auxiliary energy meters is 0.5 for all the five sites and it is line with the registered PDD.					
Period of operating time	28/12/2011 to 30/11/2012						28/12/2011 to 30/11/2012					
Instrument type	Energy meters						Energy meters					
Manufacturer, model and serial number		Khanpur	Sudhar	Akhara	Gholian	Channowal		Khanpur	Sudhar	Akhara	Gholian	Channowal
	Make	El-Measure	El-Measure	El-Measure	El-Measure	El-Measure	Make	Rishabh	Rishabh	Rishabh	Rishabh	Rishabh
	Sr. No.	Unit 1 - 10440TM0309 Unit 2 - 1204TM0309	Unit 1 – 34122TM0309 Unit 2 - 1214TM0309	Unit 1 – 8221TM0309 Unit 2 - 34125TM0309	1210TM0309	1215TM0309	Sr. No.	8/12/6441	08/12/6440	8/12/6433	8/12/6439	8/12/6442
Specific location	Meters are installed at the respective project sites						Meters are installed at the Project site					

Data / Parameter (as in the MP)	Gross electricity generation by the project activity “EG _{Gross,y} ” (MWh)					Auxiliary electricity consumption used by the project activity “EG _{Aux,y} ” (MWh)				
	Khanpur	Sudhar	Akhara	Gholian	Channowal	Khanpur	Sudhar	Akhara	Gholian	Channowal
Calibration dates	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 04/09/2012 (valid till 03/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 04/09/2012 (valid till 03/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 03/09/2012 (valid till 02/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 04/09/2012 (valid till 03/09/2014)	09/09/2011 (valid till 08/09/2012) 07/03/2012 (valid till 06/03/2013) 04/09/2012 (valid till 03/09/2014)
Company performing the calibration	On 09/09/2011 and 07/03/2012 by Neno Technological Services On 03/09/2012 and 04/09/2012 by Advance Control System					On 09/09/2011 and 07/03/2012 by Neno Technological Services On 03/09/2012 and 04/09/2012 by Advance Control System				
Required calibration frequency: Is it in line with the MP? Or represent good monitoring practices?	Once in a year					Once in a year				
Is calibration valid for the whole reporting period?	Yes					Yes				
Maintenance	The meters were well running during the monitoring period					The meters were well running during the monitoring period				
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Yes					Yes				
Key reporting risks	Low risk.					Low risk.				

	Verified situation	Conclusion
SECTION 4. Compliance with the calibration frequency requirements for measuring instruments		
The “Monitoring Parameters and Calibration Checklist” in section 3 above shall be checked to determine if the calibration frequency specified in the applied monitoring methodology and/or monitoring plan is followed in the monitoring report and in the monitoring activities. Where a failure to comply with the required frequency is detected, or no frequency is mentioned in the monitoring report, please follow the checklist below:		
<p>4-1. If the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (that is, the results of delayed calibration are available), confirm that the following conservative approach has been adopted in the calculation of emission reductions:</p> <ul style="list-style-type: none"> - If the delayed calibration did not show any errors in the measuring equipment, or the error was smaller than the maximum permissible error, have the PPs applied the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration? - If the delayed calibration identified an error greater than the maximum permissible error, have the PPs applied the error identified in the delayed calibration test to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration? <p>Confirm that the error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer emission reductions being claimed;</p>	Not Applicable	NA

	Verified situation	Conclusion
<p>4-2. If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification:</p> <ul style="list-style-type: none"> a. Request the PPs to conduct the required calibration; b. On receipt of the calibration results, determine whether the PPs have calculated the emission reductions conservatively using the approach mentioned in section 4.1 above. 	Not Applicable.	NA
<p>4-3. If it is not possible for the PPs to conduct the calibration at a frequency specified by either the applied methodology, guidance provided by the Board, and/or the registered monitoring plan due to reasons beyond the control of the PPs, check if the PPs have prepared a temporary deviation or a 'Permanent changes from the monitoring plan and/or monitoring methodology application'.</p> <p>Follow the requirements for post registration changes in sections 3.10 to 3.19 above.</p>	Not Applicable.	NA
<p>4-4. If neither the monitoring methodology nor the monitoring plan specify any requirements for calibration frequency for measuring equipment, determine whether the equipment is calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification. If neither local/national standards nor the manufacturer's specification are available, international standards may be used.</p>	Not Applicable.	NA

	Verified situation	Conclusion
SECTION 5. Assessment of data and calculation of emission reductions		
<p>5-1. Have calculations of baseline emissions, proposed CDM project activity emissions and leakage, as appropriate, been carried out in line with the formulae and methods described in the monitoring plan and the applied methodology document?</p> <p>Check consistency in the ERs spreadsheet.</p>	<p>Yes</p> <p>According to the registered PDD and the Monitoring report, the baseline emissions for the project activity for the period 28/12/2011 to 30/11/2012 have been calculated as,</p> <p>Baseline emission=Net saleable energy X Emission factor of the grid</p> <p>Net saleable Energy (MWh) by the project = Energy Exported (MWh) – Energy Imported (MWh) = 27239.118 – 47.293 = 27191.825 MWh.</p> <p>The team confirms that the calculation of Net saleable energy for this monitoring period is accurate.</p> <p>Emission factor of the grid = 0.8031 tCO₂/MWh, as calculated ex-ante in the registered PDD and will be fixed during the crediting period and is thus applicable for this monitoring period.</p> <p>Hence the baseline emission=(27191.825 X 0.8031) = 21,837 tCO₂e (rounded down)</p> <p>As stated above in section 2.4 above, project emissions and leakage have been considered as nil for this project activity.</p> <p>Hence ER = BE_y = 21,837 tCO₂e</p> <p>The verification team has checked and confirmed the calculation in the Emission reduction spreadsheet is correct.</p>	OK
<p>5-2. Has the calculation tool been correctly documented? Check its consistency and formulae.</p> <ul style="list-style-type: none"> • baseline emissions • project emissions • leakage • emission reductions of the project. 	<p>Registered PDD uses the method specified in the applied small scale methodology AMS 1.D, version 16 to calculate the emission factor for an electricity system. Grid emission factor used for base line emission is declared ex- ante and shall remain fixed throughout the crediting period. The calculation of emission reduction from the project activity depends on this emission factor and hence the team confirm that the calculation is correctly documented.</p>	OK

	Verified situation	Conclusion
<p>5-3. Is a complete set of data available during the specified monitoring period? If only partial data is available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan proceed as follows:</p> <p>a. Check if sections 3.11 and/or 3.12 above are applicable and raise a CAR for the PPs to comply with these requirements.</p> <p>b. If sections 3.11 and 3.12 are not applicable or the answer to this question remains NO, a request for deviation is necessary.</p> <p>Conduct an assessment of the potential impacts of these changes in accordance to the procedures for Post Registration Changes.</p>	<p>Yes.</p> <p>During the verification, the verification team reviewed the hourly electricity data logs, actual joint meter readings jointly signed by the PP and the Electricity Board officials for the electricity supplied to the grid. The invoices of electricity sale were used to cross check as a QA/QC mechanism.</p> <p>The verification team confirmed that the data for calculation of emission reduction in the Monitoring report and Emission reduction spreadsheet is correctly accounted and fully substantiated.</p>	OK
<p>5-4. Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?</p> <p>Please describe how LRQA has cross-checked reported data.</p>	<p>The verification team confirmed the monitored data with the following:</p> <ol style="list-style-type: none"> 1. Daily plant log Book 2. Hourly generation and auxiliary consumption data log sheets 3. Joint meter readings (JMRs) 4. Invoices raised for the sale of electricity <p>All the above documents are referenced in section 7.1 of this report.</p>	OK
<p>5-5. Have any assumptions used in emission calculations been justified?</p>	Not Applicable	OK
<p>5-6. Have appropriate emission factors, IPCC default values, and other reference values been correctly applied?</p>	<p>The emission factor for the electricity supplied to the grid has been determined ex-ante in the registered PDD and will not change during the entire first crediting period</p> <p>Hence no uncertainty involved with the stated figure and the same stands justified</p>	OK

Findings³

1. Grade / Ref:	CAR 01	2. Date:	24/01/2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:	As per section A.1 of the MR completing guidelines, PP needs to provide the brief details of the installed technology and equipment and the total emission reductions achieved during this monitoring period. The project boundary diagram in section B.1 of the MR has not been provided in line with the registered PDD. Also the name of the host party has not been provided in section A.3 of the MR.				
6. Nature of responses provided by the project participants:	The brief details of the installed technology and equipment and the total emission reductions achieved during the current monitoring period has been provided in the revised MR. The project boundary diagram has been provided in the revised MR. The name of the host party has also been provided in the revised MR.				
7. Assessment of such responses:	PP has provided the brief details of the installed technology, total emission reductions achieved during the monitoring period, project boundary diagram and the name of the host party in the revised MR. Hence the CAR is closed.				
8. References to resulting changes in the monitoring report or supporting annexes:	Sections A.1, A.3, B.1 and C of MR				

1. Grade / Ref:	CAR 02	2. Date:	24/01/2013	3. Status:	Closed
4. Requirement	Paragraphs 217, 220 and 223 of VVS version 03.0				
5. Nature of the Issue Raised:	Following corrective actions are required for section D.2 of the MR: i) During the on-site visit and document review, it was found that the values of the export / import / net electricity supplied to the grid, do not match with the JMRs provided. ii) This monitoring period covers from 28/12/2011 to 30/11/2012. PP needs to justify with evidence how the Joint Meter Reading was done for the period				

³ Explanation of the Findings Log structure:

1. Grading and Sequential Number of the finding Workbook	2. Date of Original Finding	3. New, Open, Closed	4. Requirement (VVS, PDD-CDM, etc)	5. Reference to
6. Details of PP's response	7. Evaluation from the Verification team	8. List of changes made as a result of the finding		

28/12/2011 to 31/12/2011.

iii) Whilst the first monitoring period ends on 30/11/2012, the JMRs being referred for the month of November 2012 ends as below:

Khanpur: 03/12/2012

Sudhar: 03/12/2012

Akhara: 03/12/2012

Gholian: 01/12/2012

Channowal: 01/12/2012

- iv) During the on-site visit and document review, it was found that during the monitoring period, the energy meters for monitoring of the export / import energy were changed once. Although the two sets of meters are reflected in the published MR, the period of usage of the respective meters is not shown. Moreover, in the row for "Source of data", it has been stated "Main / Trivector Meter" which during the on-site visit interview was found to be from the JMRs. PP needs to clarify..
- v) Details of the check meters have not been provided in the MR. During the on- site visit and document review it was found that for the Gholian site, the main meter was not functional from 22/12/2011 to 21/02/2012. PP needs to clarify how JMR was done during this period
- vi) The accuracy class of the main meter as stated in the published MR as +/-0.5% is incorrect. PP has not provided the accuracy class of the two sets of export / import meters used during the monitoring period.
- vii) Data archiving has not been explained in the MR.
- viii) For the import electricity parameter in the row "QA/AC procedures", it has been stated "The electricity exported.....". Also the meters details for the Channowal site have not been provided in this table.
- ix) For the net electricity supplied by the project activity the QA/QC procedures of the applied monitoring methodology states "If applicable, measurement results shall be cross checked with records for sold/purchased electricity (e.g., invoices/receipts)". It is not reflected in the published MR.
- x) The make of the generation meters for all the five sites as stated in the published MR is incorrect. Also the serial numbers of the generation meters have not been provided unit-wise for the respective turbines.
- xi) Source of the data for gross electricity generation and auxiliary electricity consumption including the QA/QC procedures do not match with the registered PDD.
- xii) PP has not provided transparently the calibration dates of the respective energy meters (export, import, generation and auxiliary) along with their validity in a transparent manner.
- xiii) The accuracy class of the auxiliary meters as provided in the published MR is incorrect.

6. Nature of responses provided by the project participants:

i. The value of the export / import / net electricity supplied has been corrected in the revised MR.

ii. The current monitoring period covers the period from 28 Dec 2011 (i.e. date of registration of the project under CDM and also the start date of crediting period) to 30 Nov 2012. As the part JMR for the month of December 2011 from 28/12/2011 to 31/12/2011 is not available, PP is not claiming emission reductions for the four days of December 2011.

iii. Closing day JMR for Nov 2012 has been taken on 03 Dec 2012 for Khanpur, Sudhar & Akhara and on 01 Dec 2012 for Gholian & Channowal, Hence, the gross generation for 01 Dec 12 to 03 Dec 2012 for Khanpur, Sudhar & Akhara and gross generation for 01 Dec 2012 for Gholian & Channowal as recorded at plant site from the gross generation meters have been deducted from the energy exported for the month of Nov 2012.

- iv. The period of usage of meters has been disclosed in the revised MR and also source of data has been corrected in the revised MR.
- v. The detail of check meter and the period of usage for billing during the period 22 Dec 2011 to 21 Feb 2012 has been disclosed in the revised MR.
- vi. The accuracy class of the main meter has been corrected in the revised MR.
- vii. Data archiving has been explained in the revised MR.
- viii. For the import electricity parameter in the row "QA/QC procedures", the statement "The electricity exported....." has been corrected in the revised MR. The meters details for the Channowal site have been provided in the updated MR.
- ix. For the net electricity supplied by the project activity the QA/QC procedures of the applied monitoring methodology states "If applicable, measurement results shall be cross checked with records for sold/purchased electricity (e.g., invoices/receipts)" has been updated in the revised MR.
- x. The make of the generation meters for all the five sites has been corrected. Also the serial numbers of the generation meters have been provided unit-wise for the respective turbines.
- xi. Source of the data for gross electricity generation and auxiliary electricity consumption including the QA/QC procedures has been disclosed as stated in the registered PDD.
- xii. The calibration dates of the respective energy meters (export, import, generation and auxiliary) along with their validity has been disclosed in the transparent manner in revised MR.
- xiii. The accuracy class of the auxiliary meters has been corrected in the revised MR.

7. Assessment of such responses:

- i) The values of the export / import and net export of electricity have been corrected in the revised MR.
- ii) As the part JMR for the month of Dec 2011 from 28/12/2011 to 31/12/2011 is not available, PP is not claiming any emission reductions for this period. This is conservative and hence deemed acceptable by the verification team.
- iii) PP has deducted from the export electricity values for the month of Nov 2012 the electricity generated for 01/12/2011, 02/12/2011 and 03/12/2011 for Khanpur, Sudhar & Akhara sites as the JMRs for these sites for the month of Nov 2012 was taken on 03/12/2012. Similarly deduction for Ghloian and Channowal sites is made for 01/12/2012 as the JMR was taken on 01/12/2012 for these sites. The daily generation data is recorded by the PP at the respective plant sites from the gross generation meters. This deduction is found to be conservative and deemed acceptable by the verification team.
- iv) The period of usage of the energy meters and the source of data have been provided in the revised MR.
- v) The details of the check meters used in the monitoring period and the usage of the check meter for billing purpose for Gholian site from 22/12/2011 to 21/02/2012 have been stated in the revised MR.
- vi) The accuracy class of the main meter as stated in the revised MR is found to be correct.
- vii) Data are archived manually and electronically and it is stated in the revised MR.
- viii) MR has been revised appropriately stating import electricity and the details of the Channowal site meters have been provided.

- ix) The QA/QC procedure for the net energy exported to the grid has been stated in line with the applied monitoring methodology in the revised MR.
 - x) The make of the generation meters is El-Measure and it has been corrected in the revised MR. Also the serial numbers of the meters have been provided unit-wise in the revised MR.
 - xi) Source of the data and QA/QC procedure for gross electricity generation and auxiliary electricity consumption have been corrected in the revised MR.
 - xii) Calibration dates of the energy meters along with validity have been stated in the revised MR.
 - xiii) The accuracy class of the auxiliary meters have been corrected as 0.5% in the revised MR.
- As all the points of the CAR were addressed by the PP and the MR was revised appropriately, the CAR is closed.

8. References to resulting changes in the monitoring report or supporting annexes:

Section D.2 of MR

1. Grade / Ref:	CAR 03	2. Date:	24/01//2013	3. Status:	Closed
4. Requirement	Paragraph 217 (b) (iv) of the VVS version 3.0				
5. Nature of the Issue Raised:	The following inconsistencies were observed in the published MR during the on-site visit and document review: i) The electricity generation value for Khanpur site for the month of September 2012 and for Gholian site for October 2012 ii) Auxiliary consumption for Khanpur site for the months of January and July 2012 and for Akhara site for the months of July and August 2012 iii) The values of the export / import electricity as reported in Annexure III of the published MR do not match with the respective JMRs.				
6. Nature of responses provided by the project participants:	The above identified inconsistencies have been corrected in the revised MR.				
7. Assessment of such responses:	PP has revised the inconsistencies in the electricity values which were found to be correct. Hence the CAR is closed.				
8. References to resulting changes in the monitoring report or supporting annexes:	Annexure I, Annexure II and Annexure III of MR				

1. Grade / Ref:	CAR 04	2. Date:	13/06//2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:	Title of the project activity as provided in the MR does not match with the registered PDD.				
6. Nature of responses provided by the project participants:	Title of the project activity has been updated in the MR dated 16 May 2013 and is in accordance with the registered PDD.				
7. Assessment of such responses:	Title of the project activity has been corrected in the revised MR which is found to be in line with the project page on UNFCCC web site. Hence the CAR is				

closed.	
8. References to resulting changes in the monitoring report or supporting annexes:	
MR	

1. Grade / Ref:	CL 01	2. Date:	24/01/2013	3. Status:	Closed
4. Requirement	Paragraph 221 and 226 (a) of VVS, version 03.0				
5. Nature of the Issue Raised:					
The dates of commissioning of the five sub projects are not provided in the MR. .					
6. Nature of responses provided by the project participants:					
The exact dates of commissioning has been provided in the revised MR.					
7. Assessment of such responses:					
The exact dates of commissioning of the five sites of the project activity have been provided in the revised MR. Hence the CL is closed.					
8. References to resulting changes in the monitoring report or supporting annexes:					
Sections A.1 and B.1 of MR					

1. Grade / Ref:	CL 02	2. Date:	24/01/2013	3. Status:	Closed
4. Requirement	Section A.2 of Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:					
The geographical coordinates provided in section A.2 of the MR for the five sites do match with that stated in the PDD. PP needs to clarify.					
6. Nature of responses provided by the project participants:					
The geographical coordinates has been corrected in the revised MR.					
7. Assessment of such responses:					
The geographical co-ordinates of the project sites as provided in the revised MR were found to be correct and in line with the registered PDD. Hence the CL is closed.					
8. References to resulting changes in the monitoring report or supporting annexes:					
A.2 of MR					

1. Grade / Ref:	CL 03	2. Date:	24/01/2013	3. Status:	Closed
4. Requirement	Paragraph 221 and 226 (a) of VVS, version 03.0				
5. Nature of the Issue Raised:					

In section C of the MR, PP needs to clarify point number 7 “The data of the aforesaid into a daily reading” which is confusing when read with point number 8. Also emergency procedures have not been stated in the MR in line with the registered PDD.	
6. Nature of responses provided by the project participants:	
The same has been corrected in the revised MR.	
7. Assessment of such responses:	
The irrelevant statement in section C of the MR has been deleted. CL is closed.	
8. References to resulting changes in the monitoring report or supporting annexes:	
Section C of MR	