 <p style="text-align: center;">Monitoring report form for CDM project activity (Version 09.0)</p>			
MONITORING REPORT			
Title of the project activity	Abohar Branch Canal based Small Hydro Project in Punjab, India		
UNFCCC reference number of the project activity	4856 ¹		
Version number of the PDD applicable to this monitoring report	06		
Version number of this monitoring report	01		
Completion date of this monitoring report	14/02/2022		
Monitoring period number	03		
Duration of this monitoring period	01/04/2014 – 31/12/2020		
Monitoring report number for this monitoring period	NA		
Project participants	Abohar Power Generation Private Limited		
Host Party	India		
Applied methodologies and standardized baselines	AMS I.D Version 16 Standardized Baseline: Not Applicable		
Sectoral scopes	01		
Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013 until 31 December 2020	Amount achieved from 1 January 2021
	0	129,102 tCO ₂	0
Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD	159,016 tCO ₂		

¹ [CDM: Abohar Branch Canal Based Small Hydro Project in Punjab, India \(unfccc.int\)](https://unfccc.int/projects/abohar-branch-canal-based-small-hydro-project-in-punjab-india)

SECTION A. Description of project activity

A.1. General description of project activity

>>

The main purpose of this project is to generate clean form of electricity through hydropower. Five Mini Hydroelectric Projects (MHP) with total capacity of 5.3 MW have been installed at Khanpur, Sudhar, Akhara, Gholian, and Channowal, villages on the Abohar Branch Canal in Punjab (India). The Mini Hydroelectric project at Khanpur (1.1 MW) was commissioned on 22 April 2010, Sudhar (1.4 MW) was commissioned on 03 May 2010, Akhara (1.1 MW) was commissioned on 25 March 2010, Gholian (0.8 MW) was commissioned on 04 October 2009 and Channowal (0.9 MW) was commissioned on 30 September 2009. The electricity generated by the hydroelectric plants is sold to state utility.

These five hydro plants are of low head, canal drop based mini hydroelectric projects. The low head schemes have lower output and do not include large reservoir. The projects include intake, draft tube, turbine, and tailrace. The draft tube is particularly important element of low head schemes because it can increase the head available.

These five hydroelectric power plants produce electricity from generators driven by turbines that convert the energy of falling water into mechanical. The water is collected at a higher elevation and then goes down through large pipes to a lower elevation. The difference between the higher elevation and the lower elevation is known as head. Turbines rotate is caused by the falling water. The generators are driven by the turn of the turbine. Generators convert the mechanical energy into electricity. The power that can be generated by these power plants depends on the height which the water falls and the flow of water.

A.2. Location of project activity

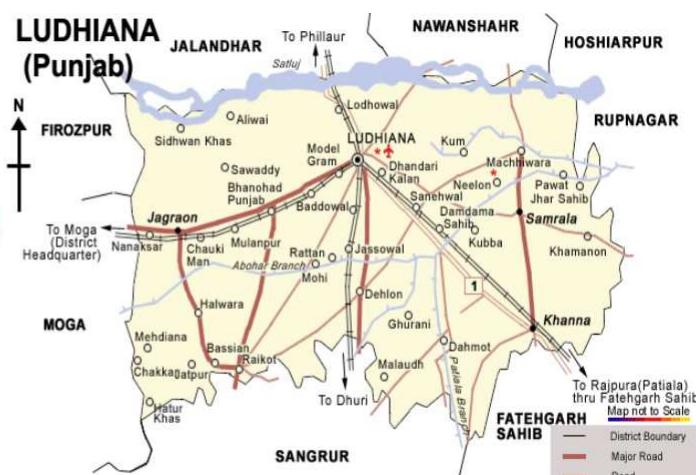
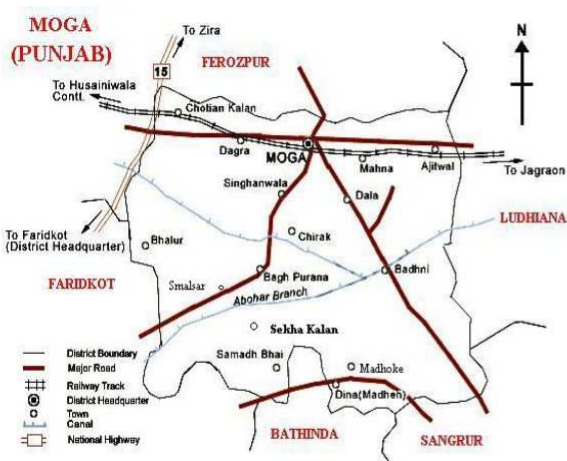
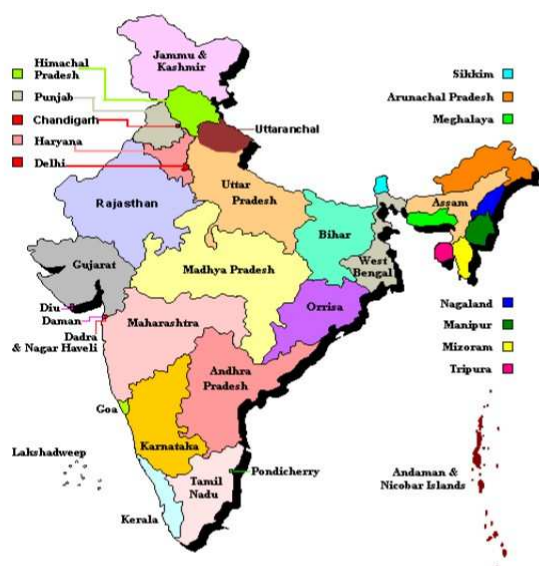
>>

Country : India
State : Punjab
City : MHP Khanpur – Khanpur Village, Ludhiana District
 MHP Sudhar – Sudhar Village, Ludhiana District
 MHP Akhara – Akhara Village, Ludhiana district
 MHP Gholian – Gholian Village, Moga District
 MHP Channowal – Channowal Village, Moga District

The proposed project is located on Abohar Branch Canal. The site locations of the five mini hydro power plants are described on the table below:

Location	MHP Khanpur	MHP Sudhar	MHP Akhara	MHP Gholian	MHP Channowal
Site Location	9 km from Doraha on Ludhiana-Ambala main road	60 km from Doraha on Ludhiana-Ambala main road	45 km from Doraha on Ludhiana-Ambala main road	75 km from Doraha on Ludhiana-Ambala main road	95 km from Doraha on Ludhiana-Ambala main road
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

All the project sites are connected to Doraha with a metalled service road along the Abohar Branch Canal. The nearest major town as well as the major rail head is at Ludhiana and the nearest airport is at Chandigarh.



A.3. Parties and project participants

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
Government of India (Host Country)	Abohar Power Generation Private Limited (Private)	No
Australia	EKI Energy Services Limited	No

A.4. References to applied methodologies and standardized baselines

>>

Main Category: Type I –Renewable Energy Projects

Sub Category: D - Grid connected renewable electricity generation

Reference: AMS.I. D, version 16, EB 54²

A.5. Crediting period type and duration

>>

Crediting type: Fixed

Crediting period: 28/12/2011 – 27/12/2021

² [untitled \(unfccc.int\)](#)

SECTION B. Implementation of project activity**B.1. Description of implemented project activity**

>>

Technology: Technical Details

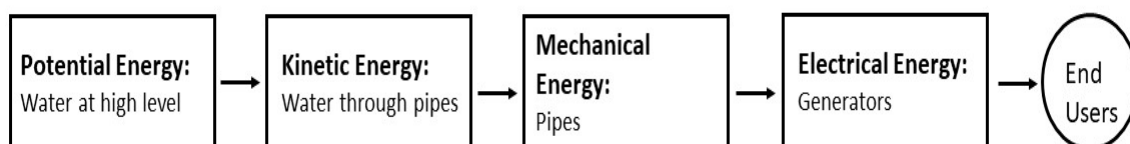
The technology used to generate power in the mini hydroelectric plant contains hydro turbines. Hydro turbines convert the potential energy in the water flow into mechanical energy. Generators will convert the mechanical energy into electrical energy. This power will be transformed to match the nearest substation for the appropriate interconnection and efficient evacuation of power. Since the technology used by the project proponent does not have any negative impact on the environment and does not result in GHG emissions. The table below describes the technical details of the technologies used in the project.

	Khanpur	Sudhar	Akhara	Gholian	Channowal
Low Head/Canal Scheme					
Shape	Trapezoidal Section	Trapezoidal Section	Trapezoidal Section	Trapezoidal Section	Trapezoidal Section
Lining details	Unlined Canal	Unlined Canal	Unlined Canal	Unlined Canal	Unlined Canal
Fall Structure	Reinforced Brick	Reinforced Brick	Reinforced Brick	Reinforced Brick	Reinforced Brick
Rated Head (m)	1.860	2.443	2.460	2.872	3.709
Rated Discharge (cumec)	36.044	34.678	26.500	33.178	28.836
Forebay and Intake					
Shape	Trapezoidal	Trapezoidal	Trapezoidal	Trapezoidal	Trapezoidal
Length (m)	75	70	70	55	50
Power House					
Type	Semi outdoor	Semi outdoor	Semi outdoor	Semi outdoor	Semi outdoor
Turbine Type	Vertical axis Semi Kaplan turbines	Vertical axis Semi Kaplan turbines	Vertical axis Semi Kaplan turbines	Vertical axis Full Kaplan turbines	Vertical axis Full Kaplan turbines
Number	2	2	2	1	1
Capacity (KWh (each))	550	700	550	800	900
Runner Discharge Diameter (mm)	3500	3250	3250	3250	2900
Type of Generator	Induction	Induction	Induction	Induction	Induction
Tailrace					
Shape	Trapezoidal	Trapezoidal	Trapezoidal	Trapezoidal	Trapezoidal
Length	70	75	75	60	60
Switchyard					
Voltage Level (V)/Basic undulation level (KV)	415V/ 11KV	415V/ 11KV	415 V/ 11KV	415 V/ 11KV	415 V/ 11KV
No. of Bays	1	1	1	1	1

The projects activities were commissioned on the dates shown below. It was registered with CDM EB on 28/12/2011.

SN	Name of Project	Date of Commissioning
1	MHP Khanpur	22/04/2010
2	MHP Sudhar	03/05/2010
3	MHP Akhara	25/03/2010
4	MHP Gholian	04/10/2009
5	MHP Channowal	30/09/2009

All monitoring equipment have been installed by the project proponent. Below is illustrated by a block diagram of energy conversation in hydropower plant.



The project activity has been operating since the date of commissioning. No events happened during the current monitoring period which could have an impact to the applicability of the methodology.

B.2. Post-registration changes

B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

>>

There is no request for deviation applied during this monitoring period.

B.2.2. Corrections

>>

During this monitoring period, there is no any correction to the project information or parameters fixed at validation has been identified.

B.2.3. Changes to the start date of the crediting period

>>

There is no change in the start date of the crediting period, considering the monitoring plan has been implemented.

B.2.4. Inclusion of monitoring plan

>>

There has not been any change in the monitoring plan during the current monitoring period.

B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

>>

There are no any changes from registered monitoring plan or applied methodology.

B.2.6. Changes to project design

>>

There has not been any change in the PDD during the current monitoring period.

B.2.7. Changes specific to afforestation or reforestation project activity

>>

This project activity is not an afforestation or reforestation activity.

SECTION C. Description of monitoring system

>>

The monitoring plan has been devised as per approved AMS I.D Version 16.

Monitoring data:

The parameters monitored ex-post is the net electricity supplied to the grid ($EG_{BL,y}$) in the year y .

Measurement method:

Net electricity

The Net electricity supplied to grid will be calculated as the difference between the Energy Exported and Energy Imported from the grid. Meters that are installed at the grid interaction point will monitor the electricity imported and exported. Representatives of grid/Licence and APGPL (Abohar Power Generation Private Limited (APGPL) will give the joint meter readings. Monthly bills would be raised for payment based on this monitored data. The records of joint meter readings would be maintained by the plant in charge. The monthly bills would be used to calculate the emission reductions.

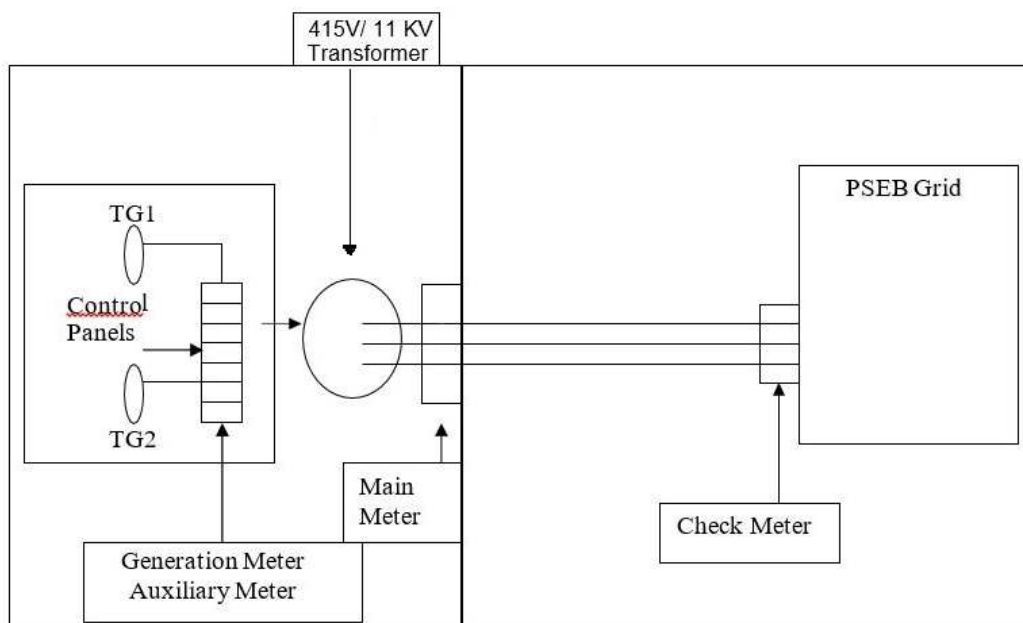
Gross electricity.

The Gross electricity will be measured by Abohar Power Generation Private Limited (APGPL). The energy meters are installed at the powerhouse.

Auxiliary consumption

The auxiliary consumption will be measured by APGPL and the meters are installed at the powerhouse.

The diagram below illustrates the all the relevant monitoring points.



The following principles would ensure the effectiveness of the monitoring parameters:

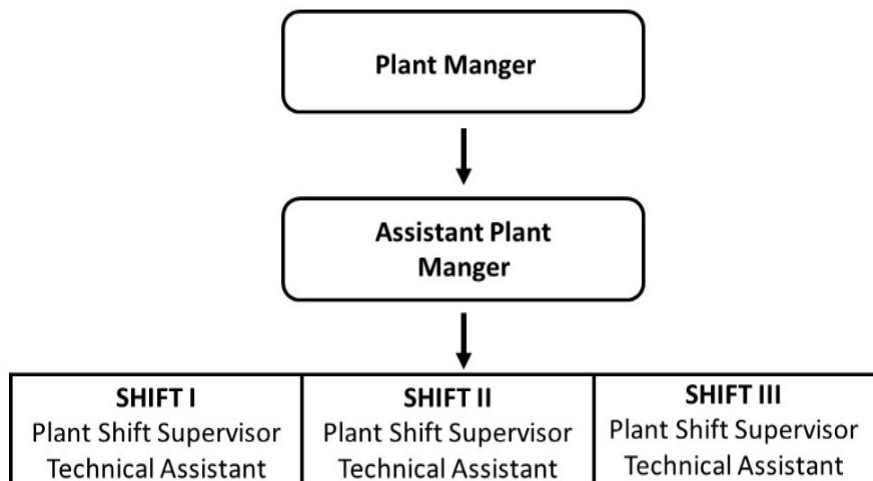
One main meter and one check meter will be maintained for the calculation of the net energy exported. The main meter readings will be used for the billing and the calculation of emission reduction if it is within the prescribed limits of accuracy. Otherwise, the check meter will be used for the billing and the calculation of emission reduction. APGPL and grid/Licensee would give and sign the monthly joint meter reading, every month. APGP will maintain the records of this joint meter.

Gross electricity generation and auxiliary consumption will be monitored and recorded by energy meters, installed in the powerhouse. Gross electricity and auxiliary consumption will be monitored and recorded for the cross verification of the net electricity exported data. The net electricity exported data will be used for the calculation of emission reduction. The difference of the gross electricity

generation and auxiliary consumption would be comparable with the net electricity exported after considering the transformation and transmission losses. Shift in charge will review and compile the recorded data at the end of each shift. If any irregularities are discovered, the same will be immediately reported to the appropriate authorities.

Plant in-charge who is also CDM Team Leader is responsible for the reviewing, storing, and archiving of the information. Periodic verification and onsite inspections will be undertaken by the plant in-charge (CDM Team Leader). These steps are taken to make sure that the quality and the reliability of the data collected are verified and would take steps if any abnormality is observed. The Heads of Commercial & Finance, Civil Works and Electrical & Mechanical Department will assist the CDM Team Leader. Shift engineers would assist the heads in monitoring and archiving the data. The data collected will be reviewed by the plant in-charge. Also, the plant in-charge will suggest corrective actions if it is required by the CDM Coordinator. The final reporting authority for the CDM Team is the CDM Coordinator.

The following is the Organizational structure, which is responsible for monitoring different parameters as per Monitoring Plan.



SECTION D. Data and parameters**D.1. Data and parameters fixed ex ante**

Data/Parameter	EF_{grid}/EF_{CM}
Unit	tCO ₂ /MWh
Description	The Grid Emission factor is calculated as the average of the Operating Margin Emission Factor (EF _{OM}) and the Build Margin Emission Factor (EF _{BM}).
Source of data	Calculated from CEA database, Version 4.0
Value(s) applied	0.8031
Choice of data or measurement methods and procedures	The ex-ante emission factor is calculated as combined margin using the “Tool to calculate the emission factor for an electricity system” Version 4.0 and the data provided by the CEA which is statutory organisation under Ministry of Power.
Purpose of data/parameter	For the calculation of Baseline Emission
Additional comments	This parameter is fixed ex-ante for the entire crediting period.

Data/Parameter	EF_{OM}
Unit	tCO ₂ /MWh
Description	Ex-ante Operating Margin for the calculation of grid emission factor
Source of data	Baseline Carbon Dioxide Emission Database, version 4.0, given by the Central Electricity Authority (CEA).
Value(s) applied	1.0086
Choice of data or measurement methods and procedures	The ex-ante simple operating margin has been calculated as the full generation weighted average for most recent three years using the “Tool to calculate the emission factor for an electricity system” Version 02 and the data provided by CEA which is a statutory organisation under Ministry of Power.
Purpose of data/parameter	For the calculation of Baseline Emission
Additional comments	This parameter is fixed ex-ante for the entire crediting period.

Data/Parameter	EF_{BM}
Unit	tCO ₂ /MWh
Description	Ex-ante Build Margin for the calculation of ex-ante grid emission factor
Source of data	Baseline Carbon Dioxide Emission Database, Version 4.0, given by the Central Electricity Authority (CEA).
Value(s) applied	0.5977
Choice of data or measurement methods and procedures	The ex-ante Build Margin has been calculated based on the most recent information available on plants using the “Tool to calculate the emission factor for an electricity system” Version 02 and the data provided by the CEA which is a statutory organisation under Ministry of Power which collects and records the data concerning the generation, transmission, trading, distribution, and utilization of electricity
Purpose of data/parameter	For the calculation of Baseline Emission
Additional comments	This parameter is fixed ex-ante for the entire crediting period.

D.2. Data and parameters monitored

Data/Parameter	EG_{export,y}
Unit	MWh
Description	Electricity exported by the project activity in year y
Measured/calculated/Default	Measured
Source of data	Joint Meter Reading

Value(s) of monitored parameter	<table border="1"> <tr> <th>Khanpur</th><th>Sudhar</th><th>Akhara</th><th>Gholian</th><th>Channowal</th><th>Total</th></tr> <tr> <td>38,256</td><td>37,713</td><td>33,766</td><td>25,562</td><td>25,827</td><td>161,125</td></tr> </table>	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total	38,256	37,713	33,766	25,562	25,827	161,125																								
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Measuring/reading/recording frequency	Continuous monitoring and Monthly recording																																				
Calculation method (if applicable)	Not Applicable																																				
QA/QC procedures	<p>The electricity exported by APGPL is monitored through monthly joint meter readings of energy meters installed at grid interconnection point. Joint Meter Readings are based on the main meter readings for the export and import of the electricity to end from the grid.</p> <p>The principles of Frequency, Data recording and Reliability as mentioned in the PDD are strictly adhered to.</p> <p>The energy meters are test checked for accuracy and calibrated once in two years.</p>																																				
Purpose of data/parameter	To calculate the baseline emission																																				
Additional comments	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.																																				

Data/Parameter	EG _{import,y}
Unit	MWh

Description	Electricity imported by the project activity in year y					
Measured/calculated/Default	Measured					
Source of data	Joint Meter Reading					
Value(s) of monitored parameter	Khanpur 60	Sudhar 70	Akhara 82	Gholian 72	Channowal 86	Total 370
Monitoring equipment	Main Meter					
	Particulars	Khanpur	Sudhar	Akhara	Gholian	Channowal
	Type	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter
	Accuracy class	± 0.20%	± 0.20%	± 0.20%	± 0.20%	± 0.20%
	Serial number	11069548	11071246	11071253	11071244	11071251
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	Check Meter					
	Particulars	Khanpur	Sudhar	Akhara	Gholian	Channowal
	Type	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter	L&T Bidirectional Trivector Meter
	Accuracy class	± 0.20%	± 0.20%	± 0.20%	± 0.20%	± 0.20%
	Serial number	11069549	11071247	11071254	11071259	11071261
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Measuring/reading/recording frequency	Continuous monitoring and Monthly recording					
Calculation method (if applicable)	Not Applicable					
QA/QC procedures	<p>The electricity imported by APGPL is monitored through monthly joint meter readings of energy meters installed at grid interconnection point. Joint Meter Readings are based on the main meter readings for the export and import of the electricity to and from the grid.</p> <p>The principles of Frequency, Data recording and Reliability as mentioned in the PDD are strictly adhered to.</p> <p>The energy meters are test checked for accuracy and calibrated once in two years.</p>					
Purpose of data/parameter	To calculate the baseline emission					
Additional comments	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.					

Data/Parameter	EG _{Net,y}					
Unit	MWh					
Description	Net electricity exported to the Grid/Licensee in year y					
Measured/calculated/Default	Calculated					
Source of data	Joint Meter Reading					
Value(s) of monitored parameter	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
	38,196	37,643	33,684	25,490	25,741	160,755
Monitoring equipment	As this is calculated, this section is not applicable for this monitoring parameter.					
Measuring/reading/recording frequency	Monthly					
Calculation method (if applicable)	Net Saleable energy = Energy exported – Energy imported					
QA/QC procedures	<p>Net Saleable energy is calculated as the difference between energy exported and energy imported from the Grid. They are monitoring by Joint Meter Reading by meters installed at the Grid Interconnection Point every month and would be recorded monthly for each site. Based on the data recorded, monthly bills is raised for payment against net electricity exported (EG_{Net, y}). The net sold value can be cross checked with the invoices raised for the respective months.</p> <p>The energy meters are test checked for accuracy and calibrated once in two years.</p>					
Purpose of data/parameter	To calculate the baseline emission					
Additional comments	<p>The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.</p> <p>The data are archived on paper and electronically.</p>					

Data/Parameter	EG _{Gross,y}					
Unit	MWh					
Description	Gross electricity generation by the project activity in year y					
Measured/calculated/Default	Measured					
Source of data	Plant records					
Value(s) of monitored parameter	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
	39,269	38,944	34,889	26,334	26,784	166,220

Monitoring equipment	Particulars	Khanpur	Sudhar	Akhara	Gholian	Channowal
	Type	Unit 1: Elecon Unit 2: Elecon	Unit 1: Elecon Unit 2: Elecon	Unit 1: Elecon Unit 2: Elecon	Elecon	Elecon
	Accuracy class	±0.50%	±0.50%	±0.50%	±0.50%	±0.50%
	Serial number	10440TM0309 1204TM0309	34122TM0309 1214TM0309	8221TM0309 34125TM0309	1210TM0309	1215TM0309
	Calibration frequency	Annually	Annually	Annually	Annually	Annually
	Calibrations during monitoring period	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 30/08/2013 (valid till 29/08/2014)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 30/08/2013 (valid till 29/08/2014)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 30/08/2013 (valid till 29/08/2014)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 30/08/2013 (valid till 29/08/2014)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 30/08/2013 (valid till 29/08/2014)
Measuring/reading/recording frequency	Continuous reading and hourly recording					
Calculation method (if applicable)	Not Applicable					
QA/QC procedures	The gross electricity generated by the project activity is monitored through energy meter of accuracy class 0.5 or better installed in the plant and recorded in the plant log book by the supervisor on an hourly basis. This data is used for the purpose of cross verification of meter electricity export and import data. The energy meters are calibrated at least annually.					
Purpose of data/parameter	This data is not used for emission reduction calculation.					
Additional comments	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.					

Data/Parameter	EG _{Aux,y}					
Unit	MWh					
Description	Auxiliary electricity consumption in year y					
Measured/calculated/Default	Measured					
Source of data	Plant records					
Value(s) of monitored parameter	Khanpur	Sudhar	Akhara	Gholian	Channowal	Total
	408	401	377	261	267	1,714

Monitoring equipment	Particulars	Khanpur	Sudhar	Akhara	Gholian	Channowal
	Type	Rishabh	Rishabh	Rishabh	Rishabh	Rishabh
	Accuracy class	±.50%	±.50%	±.50%	±.50%	±.50%
	Serial number	8/12/6441	8/12/6440	8/12/6433	8/12/6439	8/12/6442
	Calibration frequency	Annually	Annually	Annually	Annually	Annually
	Calibrations during monitoring period	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 26/02/2014 (valid till 25/02/2015)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 26/02/2014 (valid till 25/02/2015)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 26/02/2014 (valid till 25/02/2015)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 26/02/2014 (valid till 25/02/2015)	07/03/2012 (valid till 06/03/2013) 01/03/2013 (valid till 28/02/2014) 26/02/2014 (valid till 25/02/2015)
Measuring/reading/recording frequency	Continuous monitoring and hourly recording					
Calculation method (if applicable)	Not Applicable					
QA/QC procedures	The Auxiliary electricity consumption by the project activity is monitored through energy meter of accuracy class 0.5 installed in the plant and recorded in the plant log book by the supervisor on an hourly basis. This data is used for the purpose of cross verification of meter electricity export and import data. The Auxiliary meter were calibrated annually.					
Purpose of data/parameter	This data is not used for emission reduction calculation.					
Additional comments	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later. The data are archived on paper and electronically.					

D.3. Implementation of sampling plan

>>

No sampling approach has been used.

SECTION E. Calculation of emission reductions or net anthropogenic removals**E.1. Calculation of baseline emissions or baseline net removals**

>>

The baseline emissions are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor.

$$BE_y = EG_{BL,y} * EF_{CO2,grid,y}$$

Where:

BE_y = Baseline emissions in year y (tCO₂/yr)

$EG_{BL,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

= Energy Exported – Energy Imported

= 161,125 – 370

= 160,755

$EF_{CO2,grid,y}$ = CO₂ Emission Factor in year y (tCO₂/kWh)
= 0.8031

Therefore:

BE_y = 160,755 MWh x 0.8031 tCO₂/MWh
= 129,102 tCO₂

E.2. Calculation of project emissions or actual net removals

>>

Since the project activity is renewable energy power project, in accordance with the applied methodology AMS I.D Version 16, emissions due to the project activity within the project boundary are not envisaged.

Hence, PE_y = 0

Where:

PE_y = Project Emissions

E.3. Calculation of leakage emissions

>>

In accordance with the applied methodology AMS I.D version 16; no leakage emissions has been considered for the project activity.

Hence, LE_y = 0

Where:

LE_y = Leakage Emissions

E.4. Calculation of emission reductions or net anthropogenic removals

	Baseline GHG emissions or baseline net GHG removals (t CO ₂ e)	Project GHG emissions or actual net GHG removals (t CO ₂ e)	Leakage GHG emissions (t CO ₂ e)	GHG emission reductions or net anthropogenic GHG removals (t CO ₂ e)			
				Before 01/01/2013	From 01/01/2013 until 31/12/2020	From 01/01/2021	Total amount
Total	129,102	0	0	0	129,102	0	129,102

E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD

Amount achieved during this monitoring period (t CO ₂ e)	Amount estimated ex ante for this monitoring period in the PDD (t CO ₂ e)
129,102	159,016

E.5.1. Explanation of calculation of “amount estimated ex ante for this monitoring period in the PDD”

>>

No of days during the current monitoring period = 2467 days

Annual estimation as per PDD = 23,527 tCO₂

The estimated emission reductions for 2467 days of current monitoring period will be:

= 23,527 x (2467/365)

= 159,016 tCO₂**E.6. Remarks on increase in achieved emission reductions**

>>

There is decrease in the emission reductions by 0.19% during the current monitoring period relative to the estimation in the registered CDM-PDD. The estimated annual emission reductions as per the registered CDM PDD corresponding to the current monitoring period are 159,016 tCO₂. The actual emission reductions achieved during the current monitoring period is 129,102 tCO₂.

E.7. Remarks on scale of small-scale project activity

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The project activity is a small scale, project type I. The project activity utilises hydropower for electricity generation, which is into the category of renewable energy.

The project activity is a Small-Scale activity and there is no change in the installed capacity of the project.

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
09.0	8 October 2021	Revision to: <ul style="list-style-type: none"> Ensure consistency with version 03.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN).
08.0	6 April 2021	Revision to: <ul style="list-style-type: none"> Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).
07.0	31 May 2019	Revision to: <ul style="list-style-type: none"> Ensure consistency with version 02.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN); Add a section on remarks on the observance of the scale limit of small-scale project activity during the crediting period; Add "changes specific to afforestation or reforestation project activity" as a possible post-registration changes; Clarify the reporting of net anthropogenic GHG removals for A/R project activities between two commitment periods; Make editorial improvements.
06.0	7 June 2017	Revision to: <ul style="list-style-type: none"> Ensure consistency with version 01.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN); Make editorial improvements.
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> Include provisions related to delayed submission of a monitoring plan; Provisions related to the Host Party; Remove reference to programme of activities; Overall editorial improvement.
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0)); Include provisions related to standardized baselines; Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1; Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>; Editorial improvement.
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB 70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01.0	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		